OECD "Better Policies" Series
The Organisation for Economic Co-operation and Development (OECD) aims to promote better policies for better lives by providing a forum in which governments gather to share experiences and seek solutions to common problems. We work with our 34 members, key partners and over 100 countries to better understand what drives economic, social and environmental change in order to foster the well-being of people around the world. The OECD Better Policies Series provides an overview of the key challenges faced by individual countries and our main policy recommendations to address them. Drawing on the OECD's expertise in comparing country experiences and identifying best practices, the Better Policies Series tailor the OECD's policy advice to the specific and timely priorities of member and partner countries, focusing on how governments can make reform happen.
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India’s economy has grown at an impressive pace over the last two decades as a result of wide-ranging structural reforms to open up the economy and make it more competitive.

More recently, activity has slowed reflecting not only the weak global environment but also the emergence of strains created by the pressure that rapid economic growth has put on energy, natural resources, infrastructure and skills.

Institutions, regulation and economic governance need to adapt to sustain the economic transformation required for India to address its social and economic challenges. The bottlenecks that are bearing down on growth will have to be addressed for India to continue to narrow its major gap in living standards with middle-income and OECD economies, to reduce widespread poverty, to reverse rising inequality and to improve the wellbeing of all Indians. This is essential for India but also for the world economy at large.

The Indian authorities have recently renewed their reform impetus. They are working to liberalise foreign investment in some keys areas and to reform the tax system and the delivery of subsidies. These are important steps, but further reforms are also essential for India to make the most of its assets: a young and dynamic population, an entrepreneurial and increasingly innovative business sector, and proximity to one of the most dynamic regions in the world.

Making growth more inclusive and addressing widespread poverty is another key challenge for India, it requires sustained investment in people, starting from health and education but also transport and energy infrastructure. It also requires a review of the poverty reduction programmes, their targeting and efficiency.

Drawing on the expertise and experience of OECD and partner countries, this Report presents an update of OECD policy advice in those areas that are critical to India’s long-term economic performance and social development: financial sector, competition, regulation, innovation, infrastructure, energy efficiency, green growth, poverty reduction, employment, education and health.

The OECD looks forward to contributing to India’s stronger, cleaner and fairer economic growth.

Angel Gurría
Secretary-General, OECD
Sustaining high and inclusive growth

Over two decades, India has implemented wide-ranging reforms that opened up the economy, dismantled the old licensing system and introduced competition into a number of sectors that had previously been dominated by public monopolies. This decisive action has helped the Indian economy to narrow the gap in living standards with advanced economies. Supported by further reforms, convergence accelerated in the 2000s as growth averaged over 8% a year, one of the strongest performances in the world.

The challenge of reviving convergence and enhancing inclusiveness

Though the income gap with advanced economies remains vast (Figure 1), this acceleration marked a clear break from the past (Figure 2). India’s share of global output and trade has continued to climb. The Indian economy now ranks third largest in the world, measured in PPP terms, and world-leading Indian enterprises have emerged across a number of sectors, not least in information technology and business services.

Figure 1. Percentage GDP per capita difference compared with upper half of OECD countries¹

1. Compared to the average of the highest 17 OECD countries in terms of GDP per capita in 2011 and 2007, based on 2011 and 2007 purchasing power parities (PPPs). The OECD average is based on a simple average of the 34 member countries.

Source: OECD National Accounts Statistics (Database); World Bank (2012), World Development Indicators (WDI) (Database); India National Sample Survey (various years), annual population estimates from the Registrar General.
The potential for sustained strong growth is high. The Indian population is young by international comparison and this together with declining fertility has led to a falling youth dependency rate (Figure 3A). The national savings rate is also high and, given favourable demographics, could well rise further in the medium term, providing the capital needed to fund investment in infrastructure as well as strong expansion in private enterprise. Furthermore, despite employment rising in the industrial and service sectors, around half of all workers remain in low value-added agriculture (Figure 3B). The scope is therefore enormous for economy-wide productivity gains from the further migration of workers into modern sectors.

Weaknesses in the business environment and very restrictive labour legislation have prevented India from reaping the benefits of its large population, notably through the labour-intensive manufacturing boom. To fully reap the benefits of this demographic dividend and support a return to high growth, India
needs to continue to address important obstacles to stronger growth. New bottlenecks to growth have also appeared. Following the 2009 global downturn, the Indian economy enjoyed a recovery, however growth began to fade again in 2011 and new macroeconomic challenges began to emerge. GDP rose by 6½ per cent in 2011-12, the slowest annual growth in almost a decade, and has continued to weaken more recently (Figure 4). The composition of growth has also become less resilient. Capital formation, which underpinned the heady growth prior to the slowdown, has languished while manufacturing, another key engine of growth, has been chronically weak.

![Figure 4. Growth in India has weakened substantially](chart.png)

**Source:** CEIC.

This slowdown is only partly cyclical and reflects the emergence of energy, infrastructure, human capital and institutional bottlenecks. The rapid economic growth in the two last decades has indeed accentuated the demand for energy and natural resources, for transport infrastructure and skills. But supply of these key engines of growth has not been able to keep pace. Institutions and public as well as private governance also need to adapt to the development of India and the progressive transformation of its economy.

A return to strong, sustainable growth is paramount to ensuring continued progress in reducing severe poverty, catching up and lifting living standards more generally. However, it is not sufficient on its own. India needs to ensure that stronger growth benefits all Indians. While severe poverty gradually but persistently veered downwards, today large sections of the population still remain below national and international poverty lines; and inequality has increased (see chapter *Lowering poverty and inequality*). A large share of the population is employed in the informal sector generally in low-paid, low-productivity jobs with no access to training. Access to basic services including health care and electricity is limited. Widespread informality limits tax collection and in turn the ability of public spending to expand in social areas, innovation and infrastructure. There has also been growing disparity in performance between the different states, which reflects differences in the product and labour market regulations across states.
Unlocking India’s potential with further reforms

In order to fully reap the benefits of the demographic dividend and support a return to high and more inclusive growth, India needs to renew its commitment to sound macroeconomic policy and implementation of reforms. These efforts will have to be undertaken at all levels of government, starting by putting public finances on a sound footing and improving the fiscal framework so that persistent large deficits do not undermine macroeconomic stability and investor confidence (see chapter Addressing the fiscal challenges).

To boost productivity and promote the development of the formal sector, steps need to be taken to strengthen business environments and support the introduction of new technology, including through fostering competition, further reducing international trade and investment barriers and improving of corporate and public governance (chapters Improving the business environment and Improving regulation and public governance). Steps to reform the financial sector can also support productivity gains by facilitating the entry of new enterprises and improving the efficiency of capital allocation (chapter Reforming the financial market).

Improved education and reforms of the labour market are also needed to ensure that the demographic dividend is not squandered. Providing access to quality education is fundamental to the country’s long-term economic success as is ensuring opportunities for all. With elementary education now compulsory, enrolment continues to climb and should rise further. However, there is a need to improve quality and capacity at the upper secondary and tertiary levels (Figure 5, see also chapter Improving quality and access in education). To ensure that rising human capital is harnessed effectively, labour market reforms are needed to boost dynamism and support job creation in the formal sector (chapter Reforming the labour market). Inclusion could also be promoted through policies to improve productivity in the agricultural sector and by strengthening rural financial institutions.

Figure 5. Human capital across economies (years of schooling of the population over 15)

A stronger and wider formal sector means higher tax revenues that could help unlock supply-side bottlenecks, notably in infrastructure and innovation (see chapters Improving transport infrastructure and Strengthening innovation) and increase social public spending including on health care where India is among the lowest in the world (see chapters Lowering poverty and inequality and Improving health care quality and access while improving efficiency). Nonetheless, existing government spending should be made more inclusive and better support the poorest groups (see chapter Addressing the fiscal challenges). Welfare programmes, notably those that provide subsidised food and other goods, suffer from major inefficiencies and often they do not reach their intended recipients. Important energy subsidies also benefit primarily the better-offs and harm the environment. Reducing them would free up resources for essential welfare and growth enhancing programmes and support India’s necessary efforts to increase energy and resource efficiency and make its growth cleaner.
Addressing fiscal challenges

Fiscal policy has an important role to play in supporting India's long-term development. Higher spending on social care, including basic health care, on education and innovation could help make growth stronger and more inclusive (see dedicated chapters). The current fiscal situation however does not allow for such spending. Despite some improvement of the fiscal situation up to the global crisis, India has been characterised by large public deficits. Although they have not resulted in sizeable increases in the debt-to-GDP ratio thanks to high nominal GDP growth, they are a major drain on national savings and tend to crowd out private investment. They also put pressure on the current account deficit, which has widened considerably in recent years.

Public finances continue weakening

Up to the crisis, good progress had been made in reducing large fiscal deficits at central and state levels, under the auspices of the Fiscal Responsibility and Budget Management Act (FRBMA), and related state laws. By 2007-08 the general government deficit had reduced to around 4% of GDP, down from nearly double-digit levels earlier in the decade. This reduction was driven by the expansion of the corporate sector, which boosted corporate tax receipts, and a new tax on services, that broadened the tax base. In addition, personal income tax receipts peaked towards the end of the period with the strength of the economy. Government consumption also declined, reflecting in particular public sector wage restraints. However, since then, government finances weakened substantially, largely on account of a widening central government deficit (Figure). This was partly due to discretionary measures implemented to support the economy, including tax cuts, as well as a cyclical weakening in tax revenues. Still, some of the largest spending measures were more structural in nature, including hikes in public-sector salaries, debt write-offs for small farmers, subsidies for oil-related products, and expansion of the National Rural Employment Guarantee Scheme. In the 2012-13 budget, the central government announced plans to reduce its deficit to around 5% of GDP. Nevertheless tax receipts are being affected by the economic slowdown while spending, particularly on energy subsidies, threatens to overshoot.

![India's central government deficit has increased in recent years](image)

Note: Central government gross fiscal deficit presented on an Indian fiscal year basis.
Source: CEIC.

Improving the fiscal framework

Going forward, sound fiscal management will be essential in promoting sustained strong economic growth, as underscored by the experience of several high performing economies in Asia. To promote stronger fiscal policy, fiscal frameworks need to be improved, especially since the targets set out under the FRBMA have expired. Having an
institution that monitors progress in implementing medium-term fiscal targets and reports directly to parliament would help. This could build on the expertise of the Finance Commission which currently reports once every five years on revenue sharing between the centre and the states and other fiscal concerns of the government. Revised estimates rather than just a statement of future expected revenue and expenditure.

Making spending more efficient and inclusive
Given the limited room for higher expenditure in the short term, there is a pressing need to improve spending efficiency and targeting, particularly in the area of subsidies. While intended to help the poor, they often remain poorly targeted and a significant proportion accrues to households above the poverty line. This is especially true of some energy subsidies that benefit primarily the better-offs, who consume the most energy, and harm the environment. The reduction of these subsidies would not only remove incentives for environmentally harmful activities, but would also free up resources for poverty reduction and basic health care (see related chapters). The food subsidy system is also highly inefficient, with large amounts of grain finding their way into parallel distribution systems. The government is moving towards replacing some of the in-kind subsidies with direct cash transfers to households. This has the potential to reap considerable savings and improve targeting and it ought to be broadened to cover all subsidies. The Universal Identity Card, which continues to be rolled out, can also help ensure that benefits accrue only to those who are entitled to receive them.

Reforming the tax system to make it simpler, broader and more stable
Tax reforms can play a decisive role in supporting growth, by removing distortions and enhancing transparency and predictability of tax systems while increasing the efficiency of tax administration and boosting revenues. The central government, in co-operation with state governments, seeks to implement important tax reforms, including the introduction of a Goods and Services Tax (GST). The current indirect taxation system is complex and involves cascading taxes that bias production decisions and hinder inter-state trade. A national GST, coupled with a state GST, would rationalise indirect taxes while preserving states’ financial autonomy. To keep the overall rate low, the base should remain as broad as possible. Ideally, a single tax rate should apply in each state and where differential rates apply they should be kept as low as possible and confined to a limited range of products. A major effort is now required to finalise implementation details. The central government is also seeking to reform direct taxes and negotiations are continuing on a revised Direct Tax Code. The proposed changes would increase the tax-free threshold, releasing many low-income taxpayers from the tax net, thereby reducing administration costs. They would also reduce the corporate tax rate and broaden the corporate tax base. A further proposal is to reduce the tax on savings, including by making contributions to pension schemes free of taxation. While this measure would help promote savings it is important that the government adopts a balanced approach and avoids excessively generous tax treatment. Reforms are also underway to streamline a number of tax expenditures. The government also needs to ensure a certain level of stability in the area of international taxation. Recent efforts by the government seeking to create an atmosphere of certainty and predictability in this area are very welcome and this will definitely boost investor sentiment and attract foreign direct investment. India needs to address the issues concerning taxation of foreign companies too in a manner that balances its needs for expansion of the revenue base and with the confidence of the investors. The volume of overseas investment into India has grown over the last few years. While this has boosted employment, and helped develop infrastructure, it has also led to a growing number of tax disputes. In this context, the recent remarks of the government on the need to perceive the tax administration in a non-adversarial manner are welcome. India has tried ways and means to develop an effective dispute resolution mechanism and these steps need to be consolidated and developed.

Key OECD Recommendations
- **Strengthen fiscal frameworks** through legislative and institutional reforms.
- **Improve spending efficiency**, especially on subsidies, by improving targeting and delivery mechanisms.
- **Proceed with the implementation of the GST**, minimising exemptions to keep the base as broad as possible while also aiming for a single rate within each state.
- **Implement a revised Direct Tax Code** which streamlines collection and reduces the overall burden of direct taxes.
- **Push reforms in the area of international taxation** in order to boost investor sentiment and provide a stable and certain tax environment for businesses.
Improving the business environment

Despite important economic reforms since the early 1990s, India still has an unfavourable regulatory and business environment, in particular for labour-intensive activities. Over the past few years India has introduced new policies to strengthen the environment in which businesses operate, including on competition, investors rights, business conduct and anti bribery. If implemented and continued, these reforms would play a key role in boosting India’s growth potential by strengthening incentives for firms to invest, innovate, increase productivity and ultimately create more jobs in the formal sector. They will however need to be complemented by actions in other areas including improving the infrastructure and human capital (see dedicated chapters).

Promoting efficiency and strong product markets

Excessive regulation of product markets is a barrier to the diffusion of technology and lowers the speed at which labour productivity catches up to the level of the best performing economies. Despite progress, the overall regulatory environment in India is still distinctly less favourable to competition than the average OECD country and some non-member countries (Figure). This reflects relatively restrictive regulation across all three of the broad regulatory domains assessed in the PMR framework – state control, barriers to entrepreneurship and obstacles to trade and investment (see chapter Reducing trade and FDI barriers).

Restrictiveness of economy-wide product market regulation

Index scale of 0-6 from least to most restrictive

Moreover, there are wide differences in the extent of regulation across states, which affects their respective economic performance. While the Indian Central Government and some individual State Governments have achieved greater economic performance through enhancement of regulatory frameworks for a better environment for businesses (in terms of investment, starting-up and conducting
business), this has not happened in a concerted manner. The Indian Central and State Governments need to adopt a “whole of government” regulatory policy to acknowledge the importance of a coherent and coordinated effort to improving the regulatory environment across the whole of India and across states. All levels of government should lower the barriers to entrepreneurship by re-defining procedures with an aim to reducing administrative burdens on new and existing firms and thus reducing the extent of inspections, as well as the number of returns.

In 2011, India proposed a National Competition Policy, a key advancement towards removing restrictions on competition. This new policy is a bold and potentially far-reaching economic reform tool in line with OECD Recommendations in this area. However, challenges remain. The Competition Commission of India came into operation seven years after the Competition Act and is still establishing its credibility domestically and internationally. The Commission needs to develop its techniques and assessment of substantive legal and economic principles in line with international standards. A new merger control regime was also introduced but its success will depend on how the rules are implemented and whether sufficient resources and expertise are made available to the Competition Commission.

**Improving corporate governance and promoting responsible business conduct**

With economic development increasingly dependent on the country’s more than 6,500 listed companies, high standards of corporate governance and transparency are fundamental. However, the Indian business sector is still characterised by concentrated ownership, widespread use of corporate pyramids and cross holdings of shares. As a result, there is both opportunity and incentives for a small group of controlling owners to act in their own interest, potentially to the detriment of minority investors. In 1998, India produced one of Asia’s first substantial codes of best practice in corporate governance. Further improvements followed, including the introduction (and later expansion) by the securities regulator SEBI of Clause 49 in the Stock Exchange Listing Agreement, which expressly covers corporate governance. SEBI has recently proposed to amend its listing agreement to oblige listed companies to immediately disclose major related party transactions, and has also recommended changes to the Companies Bill 2011 (pending Parliamentary approval) to prohibit interested shareholders from voting on related party transactions. If passed, both reforms would be a significant step forward in protecting minority shareholders, which in turn would help build market confidence and attract foreign investors. However, hurdles such as over-burdened courts, and limited enforcement resources exist for the two oversight institutions.

The government of India is also formulating an ambitious Responsible Business Conduct strategy that targets national development goals by promoting a dialogue between government, civil society and companies. In 2009, the Ministry of Corporate Affairs released the National Voluntary Guidelines on Social, Environmental, and Economic Responsibilities of Business. They were revised in 2011 to incorporate feedback from stakeholders and include a special chapter on the application to micro, small and medium enterprises and a special section on a possible reporting framework. With the development of its National Voluntary Guidelines, India is now considering the definition of a set of criteria to classify enterprises’ projects as “Responsible Business” as well as the inclusion of specific RBC clauses in the national Company Bill pending in Parliament.

**Combating bribery of foreign public officials by Indian companies**

Foreign bribery – the act of offering, promising or giving a bribe to a foreign public official – is not yet criminalised in India. This is expected to change with the Prevention of Bribery of Foreign Public Officials and Officials of International Organisations Bill that has been recently presented to Parliament. In drafting its foreign bribery bill, India took into account a number of recommendations from the OECD Anti-Bribery Convention. Once the Bill is adopted, India will face the challenge of enforcing this complex offence, something that will require significant law enforcement resources, expertise and inter-agency coordination. The OECD Good Practice Guidance on Internal Controls, Ethics and Compliance can help India encourage the private sector to adopt effective preventive measures.

**Key OECD Recommendations**

- **Adopt the National Competition Policy**, and include an institutional framework that involves the Competition Commission of India in conducting the reviews.
- **Introduce a cross-government training programme on implementing competition assessment.**
- **Adopt the revised Company Bill.**
- **Implement and enforce the foreign bribery law and continue engagement with the Indian private sector in raising awareness about foreign bribery.**
Improving regulation, public governance and transparency

A variety of regulatory reforms by the Central and State Governments have lifted India's economic potential. In particular, in several states, the creation of regulators for public utilities and infrastructure (Regulatory Commissions), reduction in the regulatory burdens for the services sector, and liberalisation of the regulatory environment for investment and businesses have led to enhanced economic performance (see also chapter Improving the business environment). It is important that these reforms continue. In addition, integrity, transparency and accountability are essential in gaining citizens’ trust in government and creating a level playing field for business. This is a challenge also faced by many OECD countries. The Government of India, in light of corruption allegations (particularly around infrastructure development), has introduced an anti-corruption bill which is still under discussion in Parliament. By addressing these two important aspects of public sector integrity - public procurement and open government - it could help to boost trust in government.

Reducing administrative regulation and administrative burdens

Improving further the business environment via better regulation is essential for future growth potential. Reforms have already lowered regulatory barriers to international best practice in a number of areas. Nonetheless, overall administrative regulation is more restrictive than in other BRIICS and all OECD countries (Figure). Badly designed and administered regulations impose major constraints to growth and productivity and create strong incentives for small businesses to remain in the informal economy. There appears to be an increasing awareness and commitment to regulatory reform by many Indian policy-makers, stimulated by the growing evidence of the negative effects of poor regulation. However, a critical lack of appropriate regulatory tools and approaches may well hinder their reform aspirations and efforts. An administrative simplification programme is needed to reduce the burdens and costs on businesses.

The use of regulation as an instrument to reach economic and social policy objectives has increased dramatically over the last decades. Regulation of private conduct has become a fundamental tool of the government in managing its complex and diverse society and for allowing competing economic interests to be balanced. Yet, as reported frequently, the Indian government has experienced numerous regulatory failures that undermine its capacity to achieve policies important to citizens and businesses. These failures are due to persistent and common patterns of over-regulation, under-regulation, poorly designed regulation and implementation, and weak institutional capacities. Public sector governance should be made more transparent and accountable by separating operational and regulatory functions in the provision of public services. A range of regulatory reform tools and instruments has been developed and implemented by OECD countries over the last three decades to help them improve the effectiveness and transparency of regulatory systems. Many of these tools have only recently been introduced to developing countries, including Indonesia. India could draw on these to create a transparent, evidence-based regulatory system.

Procurement, a backbone of competitive markets and efficient public services

Government procurement has achieved considerable importance in the Indian economy, and it is expected to grow by more than 10 per cent annually in the coming years. Procurement has been recognized in India as an area where competition and transparency are essential to promote investment. Accordingly, the government introduced a Public Procurement Bill in May 2012 to promote efficiency, transparency and competitiveness in the procurement process, together with a Code of Integrity for the procuring entity and bidders. Preventing risks to integrity in the whole procurement project cycle, from project design, through the tendering process to the contract management, will nonetheless remain a challenge.
Moreover, experience in OECD countries shows that areas that are not regulated by the main regulatory framework, such as defense and emergency procurement, are particularly vulnerable to abuse. Based on this experience, the OECD has developed a comprehensive approach to clean government and guidance on how to prevent fraud and corruption in public organisations.

**Restrictiveness of overall administrative regulation**¹

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1. This is a simple average of two indicators (regulatory and administrative opacity and administrative burdens on start-ups) in the domain “barriers to entrepreneurship”.


**Access to information, transparency and corruption prevention**

Open government policies promote a government that is transparent and exposed to public scrutiny; accessible to anyone, anytime; and responsive to new ideas and demands. The government of India has taken steps in this direction with the adoption of a law on access to information and the creation of a Citizen’s Charter. This is in line with the practice in OECD countries, which almost all have an access to information law in place. Citizens are increasingly demanding strict measures that hold decision makers to account, including those at the highest levels in government. In India the 2011 Lokpal Bill, which provides for the establishment of a Lokpal/Ombudsman to inquire into allegations of corruption, has led to controversy and the Bill was referred to the Select Committee of the Rajya Sabha in May 2012. In order to reinforce public trust, top decision makers in the Indian government may consider disclosing the assets of top decision makers in the executive and legislature, something that is done in the vast majority of OECD countries.

**Key OECD Recommendations**

- **Conduct an administrative simplification programme** to reduce the burdens and costs on businesses.
- **Create the necessary policies, institutions, and processes to implement a transparent, evidence based regulation-making system** using regulator best practice tools.
- **Mitigate risks of waste and corruption in the whole procurement cycle** (from project design through the tendering process and to the contract management).
- **Focus efforts to increase public transparency** and reinforce public trust.
- **Strengthen the independence of the Lokpal/Ombudsman mechanism**.
Reducing trade and FDI barriers

The progressive integration of India in global goods and services markets has been an integral component of its growth performance. Exports were however strongly affected by the global slowdown, contributing to the subdued post-global crisis growth performance and widening trade deficit. Reviving exports requires not only reforms of trade policies but also important improvements in the business environment (see chapters Improving the business environment and Improving regulation and public governance) to help unleash the labour-intensive potential of India and reap the full benefits of India's integration in international markets.

The service sector has led India's integration in the world economy

India's trade has been led by services rather than manufacturing - an unusual feature for a country with India's per capita income. Over the past 3 decades services exports have been growing twice as fast as goods exports. The share of services in India's exports is currently around 35%, significantly higher than the world average of 20%. India’s share in world services exports reached 3.2 % in 2010, exceeding its share of world GDP (2.6%) while its share in world goods exports remained much lower (1.5%). And services accounted for 55% of India's value added, compared to an average of 50% for the low income countries. The dynamic development of the services sector and its strong contribution to export revenues are very positive developments. They suggest that India may have leapfrogged some of the hurdles typically associated with transition to a post-industrialised economy. Nonetheless India has major potential in labour-intensive manufacturing activities that it still needs to exploit (see chapters Improving the business environment and Improving regulation and public governance). This is essential in continuing the development of the formal sector. A further reduction of trade and investment barriers could also contribute to the development of the manufacturing sector.

Further reducing trade barriers

Customs duties on import and service trade barriers have been declining, including as part of the stimulus package put in place in response to the 2008-2009 crisis. Nonetheless, barriers in both goods and services sectors are still higher than in some other BRIICS and OECD countries. Continued trade and trade-related policy reforms will be an important element in both, sustaining the growth of the services sector and improving conditions for the development of the manufacturing sector, including labour-intensive activities. The simple average most favored nation (MFN) tariff rate declined to 12% by 2010-11 from 15.1% in 2006-07 and the average for non-agricultural products at around 9% is considerably lower than for agricultural products (33.3%). However, the average import tariff on transport equipment, for example, is at a high 21.5% and some tariff lines within this category face applied tariffs of up to 60%. Effective rates of taxation on imports are even higher as, in addition to the standard tariff rate, importers are required to pay a “countervailing duty”, which is a form of VAT on imported products, an additional special duty that replaces local taxes. Calculating the effective rates is in itself a barrier for business as it involves consultation of different, and sometimes complex, tax schedules. Additionally, as bound tariffs (i.e. duty rates that are committed in the WTO and are difficult to raise) are much higher than the actually applied rates, there is considerable uncertainty regarding future rates for producers and investors. To offset the moderate to high taxation of imported products and barriers to goods and services trade in general, India also introduced an extremely complex system of duty exemption schemes, special investment and establishment rules and special economic zones (SEZs) that provide incentives particularly to exporting firms. It is therefore important for India to continue with customs duties reforms by reducing import tariffs for all manufactured goods to 5%, similar to a number of neighbouring countries, as announced previously by the government, and thereby also simplify its trade regimes.
India has also been actively using export taxes and other types of export restrictions. While the use of these policy instruments reflects India’s objectives of ensuring domestic supply of raw materials for its industry, promoting the processing of natural resources, promoting food security and ensuring a certain level of domestic prices, they have several negative effects. They certainly limit India’s exports, but they also tend to increase prices in non-restricting exporting countries, create uncertainty in world markets and distort investment incentives.

**Further reducing barriers to FDI**

Business surveys show that India figures high amongst the countries where companies wish to invest. There are however still major obstacles to direct foreign investment in India. Apart from the relatively high duties on imports and high barriers to doing business highlighted in the previous chapters, India remains a country with one of the most restrictive FDI regimes as shown by the OECD FDI Regulatory Restrictiveness Index (Figure).

![FDI Regulatory Restrictiveness Index](image)

This is driven predominantly by high statutory restrictions on FDI in India’s services sectors. Several sectors with strong links to manufacturing such as retail, transport, communications, banking and insurance, legal and accounting services record high barriers to inward investment. There is therefore large potential to attracting additional FDI. In particular, further reforms to barriers in transport, logistics and finance services could improve the performance of the manufacturing sector and facilitate international trade in manufactured goods and business services.

The government has recently announced plans to ease some FDI barriers in the aviation and retail sectors. Continuing this easing would also contribute to better matching products to consumer tastes and to complying with local standards and regulations in the export markets. Further reforms in the area of international taxation in order to support foreign investor sentiment and provide a stable and certain tax environment for businesses would also help (see chapter *Addressing the fiscal challenges*).

**Key OECD Recommendations**

- **Continue to reduce trade and FDI barriers**, especially in goods and services sectors with strong links to the manufacturing sector.
- **Further simplify and improve the transparency of the trade and investment regimes**, as well as rationalise the export regime, including export restrictions.
Strengthening innovation

India is one of the world’s larger and faster-growing research and development (R&D) performers. Nevertheless, India shows relatively low capacity in science, technology and innovation (STI), in comparison to advanced OECD countries and emerging economies like China.

The fast growth of India’s R&D performance is the result of a strategic approach to promoting innovation that emphasises indigenous capacity development and inclusive innovation as well as focusing on spending efficiency. Benefiting from a pool of cost-competitive, English-speaking skilled labour force, India has emerged successfully as a global hub for outsourcing knowledge-intensive services. India has attracted massive inflows of foreign direct investment, and hosts several top corporate R&D investors in automotive, industrial machinery and IT industries. This has in turn contributed to India’s integration in the global knowledge system. As an illustration, a quarter of Indian Patent Cooperation Treaty (PCT) patent applications between 2007 and 2009 were produced in international collaboration (Figure) and 19% of scientific articles were published with foreign co-authors.

India’s gross expenditure on research and development (GERD) was however 0.8% of GDP in 2007 (compared to 1.4% in China), a figure essentially unchanged since 2000, although R&D expenditure grew in real terms by 6.5% a year during this same period. Government funding still accounted for two thirds of GERD in 2007, down from 82% in 2000, and the share of business R&D expenditure is considerably below the OECD median. Research outputs in terms of patents and non-technological innovation, as reflected in trademark counts, are still limited. Universities and Public Research Institutes (PRIs) strongly dominate India’s R&D system and 73% of public research is funded by block grants - reflecting a lack of competition mechanisms in the public R&D system. India currently has few world-class universities and shows weak publication record in top international academic journals. India’s output of scientific and technical articles, which stagnated through the late 1990s, began to rise after 2000, and the volume of S&T publications by Indian authors nearly doubled by 2009. India’s world ranking however changed only moderately, from 12th in 1995 to 11th place in 2009.

Creating more favourable conditions for innovation

Improving innovation performance requires a favourable environment for the mobilisation and diffusion of innovation. India’s framework conditions for entrepreneurship remain weak. Trade and FDI restrictions, along with administrative red tape and restrictive product market regulations, hinder investment and productivity (see previous chapters). The financial sector is also insufficiently developed to meet capital needs in a fast-growing economy, let alone the need for financing business innovation (see chapter Financial sector reform). ICT infrastructures are limited and the public sector’s E-government readiness is low.

This is compounded by limited human resources for innovation : professionals and technicians account for only 7% of employment and the researcher population is relatively small (fewer than one researcher per 1 000 employed in 2005). Low graduation rates and poor quality of education combined with limited access of workers to training hamper the development of human resources for science, technology and innovation (see chapter Improving quality and access in education). Actions in all these areas are essential in increasing India’s innovation capacity.

Improving innovation policies and governance

Changes in STI policies and governance are underway. The government adopted the National Innovation Act in 2008, and announced a Decade of Innovations 2010-20. Thus committing to strengthening science and technology capacities (S&T), and aiming to raise GERD to 2% of GDP and double the contribution of business. The National Innovation Council (NInC) was created in 2010 to define a new roadmap for research and innovation, and state and sector innovation councils were set up. The capacity of the Science and Engineering Research Board, a funding agency, was also reinforced. In line with its strategic
emphasis on inclusive growth and frugal innovation, the government aims to strengthen the S&T potential of micro enterprises and SMEs in semi-urban and rural areas, offering various awards and incentives to encourage entrepreneurship, cluster networking and to support target groups (e.g. National Award for Performance). The Ministry of Finance will launch the India Inclusive Innovation Fund in 2012-13 to focus on the needs of those in the lower rungs of society. To improve the provision of human resources for STI, India’s 11th Plan (2007-12) gave top priority to education at all levels by significantly raising education budgets. Furthermore, the Higher Education and Research Bill of 2011 proposes a National Commission to improve regulation of university education and vocational and technical training.

India also aims to foster green innovation to help meet the challenges of energy and food security brought about by India’s demographic and economic growth, changing lifestyles and climate change (see chapter Promoting greener growth). Examples of green innovation initiatives underway include: the National Plan on Climate Change (2008); the new Renewable Energy for Urban Industrial and Commercial Applications Programme and the Winning Augmentation and Renovation Programme.

**Key OECD Recommendations**

- **Improve conditions and incentives for business R&D and innovation**, and move towards a business centred innovation system;
- **Reform the public R&D system** by introducing competitive funding mechanisms, efficiency and relevance-enhancing measures as well as incentives for science-industry cooperation;
- **Improve framework conditions for innovation**, including essentially the provision of highly skilled labour force and the public support for entrepreneurship;
- **Enhance international openness.**
- **Ensure steady increase in investments in R&D and innovation** as a share of GDP.
Improving transport infrastructure

The Indian government is engaged in major improvements to the quality of transport services and infrastructure. This is critical not only to realise India’s economic potential, but also to lift the overall quality of life. The transport system has faced difficulties keeping up with the rising demand and this now sets back economic development.

The government is addressing these shortcomings with major public investments and reforms have allowed for greater private sector involvement. Such framework conditions were first used for the telecommunications, airlines and ports sectors, and more recently highways and airports where benefits are now visible. In contrast, where the private sector was absent, investment stagnated and difficulties were recurrent, as in the case of railways which are overloaded and underfunded. Accordingly, the next five year plan (2012-17) is built on doubling the overall rate of investment in transport infrastructure, half of which will be financed by the private sector.

Road transport

The growth of motorised traffic has outstripped the capacity of road infrastructure and traffic management systems. In many rural areas economic expansion is severely constrained by the poor quality of roads and the inadequate and unsafe highway system. A standardised public private partnership (PPP) contract has been introduced for highway construction and as a result, the proportion of roads financed by the private sector and the rate at which new roads have been completed has soared since the mid-2000s (Figure 1). However, construction companies are now highly leveraged and the capacity to take on more projects may be waning. As growth moderates, it will be important to monitor the performance of existing PPPs so that any necessary contract renegotiation is addressed in an orderly and proactive manner. At the same time the government should persist with the reform of land titling and land record management in order to reduce land acquisition delays.

Figure 1. India’s highway completion rate

Improved public transport can help reduce green house gases, while providing an affordable alternative to private transportation, where higher fuel prices, taxes or subsidy withdrawal may result in higher prices. An illustration of this is the Bus Rapid Transit Systems (started in Ahmedabad) which has enticed many passengers to switch from private vehicles or minibuses, reducing both travel time and emissions. Public transportation is important because even if car use has been rising with the increase in revenues, average incomes are only a quarter of the level at which car ownership usually takes off. Overall car ownership remains low, at less than 2 per 100 people (against 45 in OECD Europe and Japan). The majority of people continue to depend on walking, cycling or public transport for their commute to work, and also to access basic services. They are faced with unfavourable
conditions for public transport and increasing risk for pedestrians and cyclists exposed to poorly regulated motorised traffic. Investment in urban roads needs to therefore incorporate facilities for walking, cycling and prioritised public transport if these infrastructures are to benefit most of society. Fatalties and injuries caused by traffic accidents have become a major public health concern in India with the growing levels of motorisation (Figure 2). Submission to Parliament of the revised National Road Safety & Traffic Management Board Bill, initially tabled in 2010, is a priority. So is adoption of the Sundar Committee on road safety and traffic management recommendations in India’s 12th Five Year Plan. In the meantime, enforcement of existing road traffic safety regulations also needs to be improved. Enforcement of speed limits in particular would be effective in saving lives, with speed limits being adapted to the quality of infrastructure and mix of users.

**Figure 2. India’s deaths per million motor vehicles (in 2010)**

![Figure 2. India’s deaths per million motor vehicles (in 2010)](image)

Source: ITF Stats.

**Railways**

Rail transport is critical to the Indian economy. Sizeable investment is underway in trunk routes for freight, serving ports and industrial centres, however funding appears unsustainable over the longer term. Capacity is surpassed for both freight and passengers, resulting in poor service quality. Resources remain inadequate for maintenance and expansion of the infrastructure to meet its steadily growing demand. The fundamental cause for the imbalance is the channelling of resources from profitable freight carriage to the support of low, government-controlled tariffs, and loss-making passenger services which inflate demand and deprive freight of resources for investment. Tariff reform is politically difficult but unavoidable. Profitable freight business will be lost to the roads as the road capacity grows and rail freight service reliability declines. This in turn will erode the funds available to maintain the cross-subsidy to passenger transport. However, if low prices for certain services and types of passengers are to be maintained, a system needs to be introduced, where compensation is paid by the government to the railways for running politically mandated loss-making services. This will require accounting reform and the establishment of a regulatory agency to arbitrate decisions in place of the current practice of setting tariffs as part of an annual budget.

**Key OECD recommendations**

- **Monitor highway PPP contracts** in relation to demand risk as economic conditions weaken.
- **Include road safety indicators** in developing indicators of welfare to complement GDP.
- **Issue guidelines to ensure safe and adequate space and protected infrastructure** for pedestrians, cyclists and public transport.
- **Streamline land titling and improve land record management.**
- **Initiate reform of railway accounting and finance** to address cross-subsidies.
Financial sector reform

India’s financial system has developed considerably since the 1990s and has weathered the global crisis better than a number of other countries. Competition in the banking sector has intensified as new private banks have been allowed to enter and most interest rates have been liberalised. Still, more is needed to make the financial sector stronger and more efficient and to ensure optimal allocation of capital. While such an optimal allocation is important in any country, it is even more important in a fast-growing economy like India. Another challenge is to promote financial inclusion which can notably support the development in rural areas and help the poor cope with high income variability.

Ensuring the financing of the economy

India’s financial sector has already undergone a rapid transformation. While state-owned banks remain dominant, their market share has fallen rapidly. As a result, efficiency has improved and intermediation margins have shrunk. Moreover, the system as a whole seems to be well placed to meet the Basel III banking regulations, as the core common equity of banks is high and leverage ratios are below those in many other countries. India is also changing its accounting systems to converge with the International Financial Reporting Standards.

Even though competition in the banking sector has increased, it is still dominated by public sector institutions (Figure) and costs remain high. On average, Indian banks have strong balance sheet positions, but a small number of state-owned banks remains dependent on recurrent state capital injections. There is a need to end the cycle of bail-outs by raising limits on private ownership and further selling off government stakes in public-sector banks. Insofar as they remain in the public sector, restrictions on large shareholders’ voting rights ought to be lifted. Working conditions also need to be aligned closer to those in the private sector to overcome bureaucratic inertia. Allowing the entry of new private sector and foreign banks would spur competition.

Further reforms are also called for to ease the highly prescriptive operating constraints faced by the financial sector, notably the requirement imposed on banks to lend a fixed proportion of their funds to selected sectors of the economy. Targets for lending to agriculture could lead to over-borrowing, since incomes in this sector are expanding much less rapidly than bank assets, resulting in periodic debt write-offs. So far, the scope of priority lending has been reviewed periodically, with new sectors of emerging importance to the government being added. More freedom for banks could lead to an improved allocation of capital, but experience in advanced economies suggests that removing such restrictions has to be a gradual process, to avoid the negative impact of sudden surges in credit to the private sector.

While world class stock exchanges have emerged, India’s corporate bond market is still relatively underdeveloped. This stems mainly from statutory requirements for banks, insurance companies and pension funds to invest a disproportionately large portion of their total assets in government securities. This has led to a pre-empted debt market, concentrated excessively in government paper (including that of state-owned entities), resulting in a very thin market in corporate bonds with few derivative products that enable investors to hedge interest rate, currency or duration risk. The government has issued guidelines on the introduction of credit default swaps for corporate bonds which should facilitate the development of a corporate bond market.

Regulatory arbitrage has been pervasive within the financial industry, pointing to the need to streamline arrangements amongst the key regulators and reduce overlapping responsibilities. The various regulators that currently cover the asset management industry (life insurance, mutual funds and pension funds) could be merged. The manager and operator of the National Pension Scheme should however not also be its regulator. Last but not least, there is a need to modernise and codify the sometimes antiquated laws that govern the financial sector.
Promoting financial inclusion

Credit is also provided by rural banks and co-operatives, which could have played an extremely important role in bringing financial services to the poor and underprivileged across rural India (see chapter Increasing the productivity in the agricultural sector). However these institutions are generally controlled by state governments and tend to be poorly managed, leading to repeated substantial government assistance. Recent reforms, including improving oversight, are yet to yield results. These institutions need to be transformed into new, smaller, privately-owned ones. The regulatory oversight of the co-operatives needs to be modernised, not least to ensure a clear separation between management and regulators.

Private-sector micro-finance institutions have also recently started to increase lending to poor people in rural areas, alongside bank-financed self-help groups, thereby improving financial inclusion. This is essential to provide the poor with financial instruments to cope with high income variability. In contrast, banks have often failed to reach the poor directly, be they in urban or rural settings, despite central bank insistence that the opening of new branches in urban areas be matched by new branches in rural areas. Although these micro-finance institutions may not reduce poverty as much as is often believed, non-performing loans have been limited and there is strong client demand, despite the absence of a central database that covers borrowers and their creditworthiness. However, in response to political pressure, some state governments have moved to regulate interest rates and loan repayment schedules. Unfortunately these measures nearly always work against those they are intended to help and as such should be avoided. It would be better to guard against the risk of over-borrowing by improving the databases on creditworthiness.

Key OECD recommendations

- Liberalise the allocation of bank credit.
- Further open the capital of public-sector banks while allowing new private banks, including foreign ones.
- Transform rural banks and cooperatives into smaller privately-owned banks free of governmental shareholding and concurrently modernise their regulation.
- Streamline regulatory arrangements so as to reduce overlaps and compliance costs.
- Further modernise the financial sector's legal infrastructure.
- Improve databases on household creditworthiness.
Promoting greener growth

Rapid economic growth in India in the past two decades has brought tremendous benefits, yet it has also accentuated the demand for energy and natural resources. While continued growth is essential for further improving living standards, meeting India's poverty reduction objectives, as well as food and energy access requirements, it should be made greener. Efforts are therefore needed to increase energy and resource efficiency, notably through lower fossil fuel subsidies, and accelerate the adoption of clean technologies.

India has incorporated sustainable growth as a focus area in its growth strategy plan within the 12th Five-Year Plan (2012-2017) Faster, Sustainable and More Inclusive Growth. India’s priorities for green growth centre on providing food and energy security, including also actions on sustainable agriculture, waste management, resource efficiency and energy access, sustainable water provision, sustainable transport and green housing. The National Action Plan on Climate Change (NAPCC) from 2008 outlines existing policies and programmes, as well as eight “national missions” focussed on the promotion of solar energy, energy efficiency, sustainable habits, water efficiency, and the preservation of the Himalayan Ecosystem.

Reforming environmental taxation and subsidies

Revenues raised from environmentally related taxes were equal to approximately 1.2% of GDP in India in 2010, down from 1.45% of GDP in 2005. There is scope for increasing India's environmentally related taxes, in particular energy taxes, given higher levels of such taxes in some other emerging economies, such as China and Brazil. The total cost of indirect and direct subsidies for food, fertilisers, irrigation, electricity and fossil fuels, was recently estimated to be around 9% of GDP, with a high proportion accruing to households well above the poverty line. Fossil fuel subsidies are especially large compared with other fuel-importing countries at 3.5% of GDP in 2008. Reducing these subsidies, in particular fossil fuel subsidies, could release public resources while reducing the incentives for environmentally harmful consumption and production habits. These subsidies could be replaced by a system of cash transfers or coupons for other goods, such as food, to address any potential social impacts. India has taken some steps in this direction, including efforts towards the deregulation of gasoline pricing as well as efforts aimed at moving away from the current system of subsidies on kerosene and liquid petroleum gas towards direct cash payments for people with incomes below the poverty line.

Improving energy efficiency

India has one of the lowest per capita levels of electricity consumption in the world, with about 7% of the level of OECD countries; a quarter of the population still lacks access to electricity. Demand is however rising quickly, driven by India’s demographic and economic growth, new modern lifestyles and higher electrification rates. This puts energy supply security at risk since India depends heavily on imported coal to meet its needs (coal represents nearly 42% of total primary energy demand and about 56% of installed power generation capacity). Current trends will drive up imports of fossil fuels, local pollution and greenhouse gas emissions. Energy security has also become a major concern for businesses.

India is therefore pursuing multiple policies to promote more efficient and less carbon intensive energy production and consumption. The Bureau of Energy Efficiency (BEE) has launched multiple policies addressing the main energy consuming sectors. Under the NAPCC, India launched in 2010 the National Mission for Enhanced Energy Efficiency (NMEEE) to enhance energy efficiency using market mechanisms. Notably since 2011 under the Perform, Achieve, Trade (PAT) scheme, energy-efficiency improvement targets are assigned to the eight most energy-intensive industrial sectors, covering 65% of India’s total industrial energy consumption. Industrial entities that exceed their benchmarks will be issuing energy saving certificates.
which can then be sold to entities which fail to meet the set targets. Expected savings are 19 GW of energy and a reduction of emissions by 98 million tonnes a year, once the scheme is implemented. Other policy initiatives aim to facilitate risk sharing and reduce barriers for financing of energy efficiency investments through the creation of a partial risk guarantee fund and a venture capital fund. In addition, the “Energy Efficiency Services Limited Company” is tasked with developing a viable market for energy service companies to promote energy efficient technology, financing to various sectors and offering training and capacity building.

India also adopted various programs to decarbonise its carbon-intensive power sector; their implementation is essential. India had the world’s fifth largest installed wind capacity in 2011 and its share of renewable in electricity generation (excluding hydro) reached about 12%. Yet its vast potential in renewable energy remains largely underutilised. The Electricity Act of 2003 introduced essential elements of a preferential tariff for renewable-based electricity and a mandatory renewable purchase obligation (RPO) for power utility companies. This led to the introduction of the Renewable Energy Certificate (REC) scheme in 2010 to enable state electricity distribution companies to fulfil their RPO by trading the RECs. Under the NAPCC, the Jawaharlal Nehru National Solar Mission (JNNSM) was launched in 2010, setting out ambitious targets for expanding solar energy in India. The on-grid solar PV capacity increased significantly from 32 MW in January 2011 to 979 GW in May 2012. The 12th Five Year Plan (2012-17) will likely envisage an ambitious capacity expansion of renewable energy in the power sector.

Revenues from environmentally-related taxes in selected countries, 2010

Key OECD recommendations

- Continue efforts to reduce fossil fuel subsidies to free-up scarce public resources while reducing the incentives for environmentally harmful activities.
- Evaluate the use of environmentally related taxes and consider carefully whether the tax rates applied reflect environmental damage caused by consumption and production.
- Continue promoting a balanced expansion of the renewable energy sector.
Lowering poverty and inequality

India has made impressive progress in reducing absolute poverty over the past decades, but inequality is rising. In 2009-2010, 33.8% of the rural population and 20.9% of the urban population lived below the Government’s official absolute poverty line, down from 42% and 25.5%, respectively, in 2004-2005. This is the continuation of long-term trends underway since the 1970s. Economic growth has played a pivotal role in poverty reduction, particularly since major economic reforms were initiated in the early 1990s. Nevertheless, while India strides towards absolute poverty reduction, it has experienced a significant rise in inequality, similar to that seen by other major Emerging Economies, including China, Russia and South Africa (Figure).

Change in inequality levels, early 1990s versus late 2000s

Gini coefficient of household income

<table>
<thead>
<tr>
<th>Country</th>
<th>Early 1990s</th>
<th>Late 2000s</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
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<td>0.70</td>
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<tr>
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</tr>
<tr>
<td>OECD</td>
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<td>0.35</td>
</tr>
</tbody>
</table>

1. Figures for the early 1990s generally refer to 1993, whereas figures for the late 2000s generally refer to 2008.
2. Gini coefficients are based on equivalised incomes for OECD countries and per capita incomes for all EEs except India and Indonesia for which per capita consumption was used.

Source: OECD (2011), Divided We Stand: Why Inequality Keeps Rising; OECD-EU Database on Emerging Economies and World Bank Development Indicators Database.

Inequality is rising

One important pattern emerging since the early 1990s has been the rise of inequality within both urban and rural areas. While similar trends are seen in China, other large emerging economies, such as Brazil and Indonesia, report declining inequality in urban and, especially, rural areas. This evolution of inequality between rural and urban areas causes concern in India. Between 1995 and 2005, the growth of real consumption for those in the two highest income deciles in urban areas has been about 1.5% per year.
faster than for those on median incomes. Incomes at the lower end of the labour market increased more modestly, reflecting the enormous over-supply of unskilled labour typical of a rapidly developing country. In rural areas, income growth has been less unequal, closer to that of the lower income groups in urban areas.

Strong group-based inequality, reflecting India’s traditional caste system as well as gender issues, is a serious impediment to further poverty reduction. Government data shows that scheduled tribes and castes exhibit much higher poverty rates than the average population, with women and children suffering the highest incidence of poverty as well as poorer health and education outcomes.

**Policy challenges to promote inclusiveness**

The Government’s recent Approach to the 12th Five Year Plan recognises that further lowering the incidence of poverty and reversing the pattern of growing inequality will require a comprehensive strategy. Many key elements of this multi-dimensional approach are addressed in the other chapters of this document, including policies to improve health, nutrition and educational outcomes (see dedicated chapters). In addition, labour market reforms could help reduce the segmentation between formal and informal employment (see chapter Reforming the labour market). The tax system delivers only modest redistribution. In the context of the ongoing reform of direct taxation, increasing the tax free-threshold could increase the redistributive effects of the system (see chapter Addressing fiscal challenges).

There is also scope for making social spending a more powerful tool to deal with rising inequality. Social spending, which amounts to about 5% of GDP in India, is low by international standards, including in comparison to other large emerging economies. However, India does not have much fiscal space to increase social spending, given the high general government deficit. Nevertheless, better targeting of inefficient subsidies offers a potential path for reform. Correcting the serious problems of “leakages” in the subsidies delivered through the public distribution system should be a priority. In addition, eliminating environmentally-harmful subsidies, which are poorly targeted to address poverty, should also be considered. Replacing these subsidies by more direct support to poor households can increase equity. Improving human development outcomes will also require specific and well-targeted programmes. One very important example is the National Rural Employment Guarantee Scheme (NREGS), which provides 100 days or more of employment at a wage determined by the central government to any member of a rural household who wishes to participate. The government may consider maintaining under check the cost effectiveness of the NREGS, which is essential to realize its potential as a mechanism for helping those most in need. In particular, this requires securing that wages are set at a level around the minimum wage, which is very low in India. By limiting the risk of attracting workers with viable alternatives, this would reinforce the important self-selection property of the mechanism.

Large cities are expected to remain a key driver of Indian growth and poverty reduction, but small and medium-sized cities remain home to 80% of India’s urban poor. Serious attention should be paid to tackling the regulatory and infrastructure barriers preventing small towns from realising their potential. In addition, policies to increase the productivity of agriculture and promote the diversification of activities in rural areas are essential (see chapter Increasing productivity in Agriculture).

**Key OECD recommendations**

- **Adopt a comprehensive reform approach** to further lower the incidence of poverty and reverse the pattern of growing inequality. This multi-dimensional approach must include education, health care and labour market reforms.
- **Enhance the cost effectiveness properties of the NREGS**, by ensuring that the wage is set at a level around the minimum wage.
- **Re-target environmentally-harmful subsidies**, to more directly support poor households and increase equity.
- **Tackle regulatory and infrastructure barriers**, still preventing small towns from realising their potential.
Improving health care quality and access while improving efficiency

Making growth more inclusive requires better health care coverage and quality. A large share of the population suffers from poor health and, although it has been increasing, average life expectancy remains relatively low. Improvements in health status would not only have a direct impact on welfare and poverty but could also boost economic growth through higher worker productivity.

Health spending is low, even given India’s level of development (Figure 1). At 4.2 per cent of GDP it is lower than comparable middle income countries such as South Africa, Brazil and China. There are also concerns that India does not get enough value out of its current health spending. Considerable funds are devoted to services delivered by unskilled workers or through dubious pharmaceuticals. This problem is exacerbated by public spending being amongst the lowest in the world. This often results in individuals facing out-of-pocket costs, something that accounts for 67% of total expenditure on health in India, which accentuates poverty. In response, the government is expanding access to public health insurance, including for those below the poverty line. To continue financing health care in the current fiscal context, public spending reforms will be necessary to free up resources elsewhere, including by the reduction of subsidies (see chapter Addressing fiscal challenges).

Figure 1. Health expenditure as a share of GDP, 2009

In addition, there are major variations in health outcomes and the quality of health care services across states. This reflects both differences in levels of economic development and major disparities in public health spending. With the Central Government accounting for only one-third of public health spending, there is at present limited scope for major fiscal equalisation between richer and poorer states, a situation that is further complicated by the different levels of priority that different states assign to financing health care.

Lessons from expanding health care coverage in emerging economies

A key challenge for India is making health care delivery more effective while increasing resources. Expanding the medical workforce and other health infrastructure takes time and higher spending and demand for services can lead to bottlenecks. In recent years some middle income countries have addressed this challenge of
expanding health care coverage by defining a limited set of essential services, usually primary care services such as vaccination (Figure 2) and children’s health. Mexico’s Seguro Popular provides an explicit package of cost effective interventions, including pharmaceuticals that cover the major disease burden areas amongst the poor. Chile identifies 69 “essential services” considered the most cost effective interventions for the population’s disease burden, which are provided as a “guarantee”. Brazil progressively rolled out “Family Health Teams” trained in 14 key competencies (e.g. women and children, diabetes, hypertension and HIV) through the country.

![Figure 2: Vaccination rates DTP3 of children aged around 1 (2010)](image)

Notes: DTP3 is diphtheria toxoid, tetanus toxoid and pertussis vaccine. Asia 22 consists of Sri Lanka, Thailand, China, Hong Kong-China, Macao-China, Japan, Singapore, Mongolia, Bangladesh, Brunei Darussalam, Malaysia, Korea Rep., Korea DR, Vietnam, Cambodia, Myanmar, Philippines, Pakistan, Indonesia, Nepal, Lao PDR and India.

Source: WHO, Global Health Observatory, 2012

These countries have faced the challenge of expanding health care within a federal system and focused expansion on informal workers and the poor. This was supported by central governments that paid states through financial transfers tying funds to expanding coverage. District governments in Brazil received a fixed per capita amount for new families enrolled in the health programme and a variable per capita component linked to the local level of development. Financing to states in Mexico was linked to the number of additional people that signed up to the new health program, with states providing a co-contribution.

**Regulating private health insurance carefully to help support public policy**

At the upper end of the income spectrum, India’s market for private health insurance is small and not well regulated, with many financing their health care through out-of-pocket payments. Moving to better regulation of India’s rapidly growing private health insurance market could help raise more funds and more effectively mobilise private sector resources.

**Key OECD Recommendations**

- Tightly define the benefit package on the grounds of cost-effectiveness
- Link additional funding to States to expanding coverage of health care to the poor
- Contract with the private sector where they can usefully deliver services to those in need
- Further regulate pharmaceuticals, particularly the supply chain for key drugs and encourage better prescribing behavior
- Better regulate private health insurance in India’s overall architecture, to make it a better financing option for those with the capacity to pay
Improving quality and access in education

Education has a central role in promoting inclusive economic development. It can notably help reduce the share of informal employment going forward and promote social inclusion. Higher human capital is also essential in supporting productivity and innovation (see chapter Strengthening Innovation). Long-term investment in a small number of elite higher education institutions has helped the development of India’s IT and business services sectors and has contributed to the country’s strong growth performance during the past two decades. However, such investments have not, until recently, been matched by broader investment in mass education, leading to inequality and social exclusion of large parts of the population (see chapter Lowering poverty and inequality). For example, only about half of the relevant age group is enrolled in secondary education, with many more girls than boys out of school. The challenge is therefore to improve the quality of education and provide equitable access at all levels.

Improving access and quality at all levels

Improving quality and access in education remains a key priority to lift growth, and make it more inclusive. With universal enrolment in elementary education almost achieved, the Indian Government aims at promoting universal completion. With the implementation of the Right to Free Education Act, elementary education is free and compulsory, leading to increases in enrolment. In addition, the goal of increasing the coverage and quality of secondary education is reflected by the commitment to generalise secondary education included in India’s latest Five-Year Plan and the government’s Secondary Education for All Action Plan, the Rashtriya Madhyamik Shiksha Abhiyan (RMSA).

In higher education, India has an expanding number of institutions, many of which are privately funded and managed (though with varying quality), and a growing demand for undergraduate places. While this brings major opportunities, India faces the challenge of aligning its higher education system with the evolving skill requirements of its economy, while ensuring equitable access. As in many other advanced and emerging economies the demand for skills is evolving. India’s challenge lies not only in having sufficient teaching expertise in specific fields or promoting analytical thinking, but in encouraging creativity, critical thinking and communication skills. Addressing the education challenge requires effective evaluation and monitoring of progress.

In the last decade India has developed systematic national assessments of learning at key stages of the elementary education cycle. Moreover, as part of the efforts to measure learning at higher levels of the education system, two Indian states – Himachal Pradesh and Tamil Nadu – took part in the 2009 Programme for International Student Assessment (PISA), which assesses the performance of 15-year-old students in reading, mathematics and science. India’s participation revealed that, in all three subjects assessed by PISA, the average performance of 15-year-old students in both of the states was well below the average of the OECD countries and also behind other participating emerging economies (Figure). Over 80% of 15-year-old students in the two states performed below the baseline level of proficiency in the three areas tested. In mathematics students in both states struggle most notably with tasks that require higher-order thinking skills. However, the top 5% of students performed much closer to OECD averages, illustrating what is achievable in India. These figures do not cover the sizeable proportion of 15-year-olds not in school. The findings have sparked discussions about educational reforms in India, including on teacher education and curricula. They have also helped India to begin benchmarking the quality of its schooling and open up opportunities for peer learning with other countries. India’s further participation in PISA would provide additional opportunities for monitoring and guiding school improvement policies, for instance helping India identify critical factors affecting the participation and performance of particular groups of students, such as girls, scheduled caste, scheduled tribe, other minorities and the disabled.
Lessons from the experience of other countries

PISA can complement domestic monitoring systems to help track progress, as underscored by the experience in Brazil. Since Brazil's first participation in PISA in 2000, reading scores have improved considerably. In mathematics, Brazil’s improvement between 2003 and 2009 was second only to Mexico. Along with the benchmarking efforts, these improvements were achieved thanks to increased spending on education (from 4% of GDP in 2000 to 5.2% in 2009), higher teacher salaries, better teacher training, and more equitable distribution of federal funds to the poorest states. Brazil has set ambitious, but realistic performance targets for 2021, linked to PISA performance and Brazil’s new Basic Education Development Index.

Turkey is another country with improving student performance. In science, students improved by the equivalent of one whole school year between 2006 and 2009. Turkey’s Basic Education Programme, which began in 1998 and benefited from around USD 11 billion in resources, has had an impact on almost all students. In terms of access to education, almost universal primary school attendance has been achieved through a new compulsory education law. Policies to tackle quality improvements have included curricular reform, designed not only to change the content of school education but also to encourage the introduction of innovative teaching methods, emphasising student centred learning. In addition, new arrangements were implemented to train teachers for upper-secondary education through five-year graduate studies. China, Indonesia and Peru (who also participated in PISA) are other examples of improvements in educational performance of students.

Like these countries, India could build on existing evaluations (both in elementary education and PISA) to better understand the strengths and weaknesses of the system, identify priorities and track progress at all levels of government.

Key OECD Recommendations

- **Continue with current programmes**, such as RMSA, that seek to raise participation in secondary education while also improving learning outcomes.
- **Develop a system of assessment** to better identify reform priorities and track implementation and progress.
Reforming labour markets

Improving the functioning of the labour market is essential to long-term growth but also to reduction of inequalities. While the Indian economy has performed well when it comes to creating jobs, informal employment accounts for approximately 85% of total employment, with women slightly less likely than men to hold formal jobs (Figure). The incidence of informal employment is much higher in India than in most other large emerging countries. Overall the employment rate is held down by the relatively low participation rates of prime-age women (36%), youth (37%) and older workers (43%), which contrasts sharply with the 98% participation rate for prime-age men. As a comparison, 86% of prime-age women are active in the labour force in China and 70% in Brazil.

Informal work in selected G-20 economies

Persons in informal employment¹, by gender, as a percentage of non-agricultural employment

Note: Countries shown in ascending order of the proportion of women in informal employment

¹ Data for the Russian Federation correspond only to persons employed in the informal sector.

Source: ILO/WIEGO Informal Employment Database.

The high rate of informality raises a number of concerns, with workers in informal jobs experiencing low wages, limited access to training and weak job security. The strong segmentation of the labour market, between formal and informal employment has played an important role in driving significant increases in earnings inequality (see chapter Lowering poverty and inequality). It represents an important barrier to achieving inclusive growth. Informal employment also depresses productivity. Going forward, it could undermine the effectiveness of social insurance programmes, should such schemes be developed in the future. While increasing the share of formal employment has been identified as a key goal for labour market policy in India, formal employment has seen a downward trend since the late 1990s, even though the economy and total employment have risen strongly.
Encouraging job creation in the formal sector

While reform of labour market regulations could help improve the functioning of the labour market and support formal employment, the benefits of such reforms will increase if they are combined with measures to improve the quality of primary and secondary education, including vocational education; as well as better targeted social spending (see dedicated chapters). They also need to be complemented by reforms addressing the other factors behind informality including reducing the administrative burden, simplifying the tax system, and more generally improving the business environment, issues which have been previously explored in this document.

OECD analysis has shown that burdensome labour market regulation and particularly strict employment protection rules have an important role in Indian labour market segmentation. Dismissal laws under the Industrial Disputes Act - which require manufacturing firms with more than 100 workers to request permission from the Ministry of Labour and Employment before dismissing just one worker - most likely restrict job creation in large manufacturing firms, especially compared with firms in the informal sector. This procedural requirement is one of the major reasons that the OECD employment protection legislation (EPL) indicator considers Indian regulations as unusually strict. Such strict EPL acts as an important constraint on the expansion of successful businesses, as well as on the efficient operation of large manufacturing firms. It also helps explain why manufacturing is relatively underdeveloped in India (see chapter Reducing trade and FDI barriers); why most employment growth has occurred in smaller firms, which account for an unusually high proportion of total employment; and why this growth in employment has taken the form of contract labour and fixed-term contracts. While these forms of job creation allow employers to circumvent some of the rigidities and additional costs associated with poorly designed labour market regulations, they reinforce labour market segmentation and limit potential economies of scale. In addition, instead of protecting vulnerable workers, strict employment protection makes these workers bear most of the adjustments, retaining them in precarious jobs with limited opportunity for progress.

Experiences from a number of countries show that labour market regulatory reforms can boost income and employment security and encourage expansion of formal employment without reducing labour market dynamism. These experiences suggest that India should move away from a regulatory system that provides a minority of workers with very strong protection against dismissals, while the majority of workers have almost no protection. They also suggest moving towards a more balanced system that relaxes procedural restrictions on dismissals for protected workers in exchange for offering workers more generous entitlements to severance pay and reemployment assistance when dismissed. Experience in other countries shows that the benefits from such reforms to labour market regulations are likely to be greater when these reforms are combined with an effective public employment service and competition-friendly reforms to product market regulations. National reforms would be preferable, but further initiatives by states to relax dismissal rules, while strengthening re-employment support to dismissed workers, would also be useful.

Developing vocational training

The youth unemployment rate is five times the rate of adults (10.3% versus 2.1%), indicating that the transition from school to working life is often difficult. The National Policy on Skills Development in India, which encompasses the creation of a public-private partnerships to strengthen industry engagement in skills development, is therefore welcome. Measures to strengthen vocational training at the upper secondary level could help reduce the number of Indian youth leaving school without adequate vocational qualifications and smooth the school-to-work transition. For example, Mexico’s use of mobile training units (so called unidades móviles) provides an interesting model for reaching youth at risk of dropping out or those living in rural areas with limited opportunities for learning. Similarly, China has undertaken promising initiatives to combine rigorous academic course work with workplace training.

Key policy OECD Recommendations

- **Encourage job creation in the formal sector by reducing the administrative burden for dismissal faced by large firms.**
- **Couple greater scope for firms to adjust employment levels with greater severance entitlements for dismissed workers and greater provision of reemployment support for dismissed workers.**
- **Co-ordinate labour market reforms with measures to strengthen and better target social protection systems, to boost more inclusive growth.**
Increasing productivity in agriculture

A key challenge for India is to make its agricultural sector more productive and more sustainable. Agriculture still accounts for 17% of India’s GDP and about half of total employment. Two-thirds of India’s population depend on agriculture and related activities for their livelihood. In the last two decades, agriculture-related growth has been much slower than in non-agricultural sectors, contributing to the widening of inequality (see chapter Lowering poverty and inequality). This stems mainly from modest growth in total factor productivity (TFP, Figure 1) and in particular weak labour productivity.

Figure 1. Agricultural TFP growth

Note: Calculations by Fuglie (2012) using FAOstat data.

Population pressure, inheritance laws and a lack of employment opportunities in rural areas have contributed to both an increase in the number of farmers as well as a decrease in the average farm size (to around 1.23 ha). Agriculture-related growth has also been uneven across regions reflecting structural differences in land availability, population growth, off-farm labour opportunities, as well as uneven access to modern technology. The need to improve agriculture productivity and sustainability is well-recognised in India’s Twelfth Five Year Plan which aims at increasing agricultural GDP growth to 4% per annum from its current rate of 2.5% (Planning Commission, 2011).

Enhancing market efficiency

Lifting agricultural sector productivity requires increasing the productivity of staple crops, essential to feeding a growing population, and diversifying agricultural production to higher value products (e.g. dairy and poultry products, aquaculture, non-food grains, fruits and vegetables). Indian farmers have started to diversify their production, and adopted new technologies, such as improved seed varieties. However,
staple crops still account for a large share of agricultural production as they benefit from guaranteed prices. Scaling back price support mechanisms would reduce distortions in commodities markets, improve the performance of the agricultural sector and make staple food more affordable. Many countries have reduced these mechanisms, as they interfere with farmers’ production decisions and are an inefficient way to transfer income to farmers. Moreover, farm inputs (fertilisers, electricity, water) are often subsidised in India. While these subsidies have short-term benefits, they are costly and, over time, will hamper the development of competitive input markets. Subsidies to specific inputs, such as fertilisers and water, can also lead to over-use, with negative impacts on the environment. Fertiliser subsidies delivered through manufacturers also leak to the fertiliser industry, which is regulated and remains uncompetitive. Reducing prices and input-based support should improve farmers’ responsiveness to market signals. It will also allow for more funding for investments in education and training, physical infrastructure, and agricultural research, development and extension, all of which will promote the longer term development of the sector. Efforts could also focus on improving the functioning of land markets and stimulating off-farm rural employment to facilitate the creation of more productive and viable size farms. While total credit to agriculture has shown consistent growth, many of the rural poor remain excluded, due to inefficiencies in the formal finance institutions, weak regulatory framework, high transaction costs, and risks associated with lending to agriculture.

**Fostering innovation**

Innovation can also support agricultural productivity growth but public spending on agricultural R&D lags (Figure 2). Aside from increased funding, public-private partnerships could be considered as well as increased efforts to adapt technologies developed elsewhere, including via international collaborative mechanisms. Agricultural innovation systems also need to be tailored to the local conditions and there is a clear need for an increased focus on sustainable resource use. In general, systems to disseminate information to farmers are well-developed though it is important to improve information and training on sustainability issues.

**Figure 2. Agricultural R&D intensity**

Government expenditures on agricultural R&D as a percentage of agricultural GDP

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<thead>
<tr>
<th></th>
<th>1992</th>
<th>2000</th>
<th>2005</th>
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<tbody>
<tr>
<td>China</td>
<td>0.5</td>
<td>1.0</td>
<td>1.5</td>
</tr>
<tr>
<td>India</td>
<td>0.5</td>
<td>1.0</td>
<td>1.5</td>
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<tr>
<td>Indonesia</td>
<td>0.5</td>
<td>1.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Japan</td>
<td>2.5</td>
<td>3.0</td>
<td>3.5</td>
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<tr>
<td>Korea</td>
<td>2.5</td>
<td>3.0</td>
<td>3.5</td>
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Note: Agriculture includes crop, livestock, hunting, forestry and fishing.
Source: OECD R&D Database and IFPRI/ASTI database reported in OECD (2011).

**Key OECD recommendations**

- **Begin to shift public expenditures away from price support and input subsidies** towards productivity-enhancing investments that support the long-term competitiveness of the agriculture sector.
- **Improve agriculture innovation systems**, including research and development, technology adoption and transfer, education, and farm training and extension services.
- **Develop water resources and irrigation management institutions** to improve the sustainable use of water.
- **Improve rural finance** by enhancing regulatory oversight, creating an enabling environment for the development of micro finance institutions in rural areas, and strengthening the legal framework for loan recovery.