Chapter 1. Realising regional potentials through better market integration

China's regions have been experiencing impressive growth over the past decades, but their potentials could be better exploited by creating a single product and labour market. Local protectionism increases transaction costs and hinders competition, thereby taking a toll on productivity. Administrative monopolies have long thrived and are hard to dismantle. Restrictions on the hukou and the fragmented pension system limit labour mobility. Local regulations aim at, among other things, securing the collection of local taxes, without which cities could not afford to offer the same public services to migrants as to urbanites. Hence, dismantling local regulations and creating a single product and labour market needs to go hand-in-hand with the reform of inter-governmental finances.

Recent measures on both the product and labour market front appear to aim at making up for the slow progress over the past decade or so. There are signs that these efforts are helping China's regions at various levels to converge toward each other. Disparities are shrinking faster across provinces, compared to within provinces. Integration of product and labour markets will boost productivity over the medium-to long term by reducing transaction costs, but could potentially widen regional disparities, which are already relatively high. This will necessitate enhanced transfers and re-centralisation of the financing of spending in some key categories such as education and health. Policies to help catching up of laggard regions by better connectivity through infrastructure investment are bearing fruit, but such investments should be subject to rigorous cost-benefit criteria to enhance capital allocation efficiency and should take into account externalities. Notwithstanding significant disparities along multiple dimensions across provinces, inequalities, be it in terms of income, wealth or education, are actually most striking along the rural-urban dimension. The rural revitalisation strategy, a novel element of the 19th Party Congress outcomes, is expected to address this issue. The other recent strategy of nurturing the formation of city groups will also likely benefit rural areas in-between those cities.

China is a collection of regions whose income per capita ranges from lower-middle to high and population from as young as India's to as old as Korea's. Life expectancies also vary widely across the country with Beijing's 80 years close to life expectancy in advanced economies and Tibet's 68 years close to India's. Population densities vary from lower than the United States' to higher than Korea's. The spatial distribution of the population – which is related to geographical endowments -- had a bearing on the distribution of economic activities. Export-oriented provinces with large manufacturing clusters appear to be the most productive, while agriculture's productivity lags well behind more advanced countries.

Disparities in GDP per capita measured by the Theil index at the province level at 0.09 (in 2016) are lower than across Indian states (0.15 in 2014), but higher than across US States (0.04 in 2016). In contrast, disparities are high within provinces, which largely reflects the urban-rural divide. Indeed, an average urbanite earns almost three times of what a rural resident earns and holds nearly five times of the assets (Molnar et al., 2017). Migrants are in between the two groups, with half of the average urban income and less than half of the assets. Education and health resources are unevenly distributed, with urban areas in general having easier access to and better quality of such services. While access to education resources, especially at the compulsory education level, requires living in the catchment area, health resources can be used by anyone, though with lower reimbursement rates for people not belonging to the institution's area of service. As a result, urbanites spend only double of that of rural residents on health and 50% more than migrants, but about three times and twice, respectively, on education.

China's regions have been experiencing impressive growth over the past decades, but their potentials could be better exploited by creating a single product and labour market. A single product market would raise efficiency by economising on transaction costs related to varying regulations and other barriers to the flow of goods and cross-regional activities. Anti-competitive regulations at the local level continue to take a toll on productivity and hence curb the speed of catching up with the frontier economies. Similarly, a single labour market would allow human resources to flow where they are valued most, and thus raise efficiency. The *hukou* system entrenches inequalities in pay and social security and hence lowers productivity. High inequalities in the distribution of education resources reinforce inequalities in opportunities (OECD, 2015) and hinder upward social mobility. Poorer health services in rural areas and lower reimbursement rates in cities of workplace impair migrant workers' health outcomes and hence also productivity.

Phasing out local protectionism to create a single product market

Local protectionism has long been preventing the integration of product markets across the country and reducing capital allocation efficiency (Chen et al., 2016). Protectionist measures include hindering the entry or exit of outside businesses and discriminating them in terms of pricing or access to local procurement contracts. Any such anti-competitive behaviour is strictly prohibited by the Anti-Monopoly Law of 2007. Many of the anti-monopoly investigations have been brought against public utilities that imposed extra costs on consumers by tying services, restricted consumer choice by designating a constructor or abused their dominant position in other ways to restrict competition (Horton, 2016). In addition to enterprises, in particular SOEs, attempting to protect their business interests by reducing competition, local governments granted monopoly powers to local businesses (Box 1.1 and Schneider, 2010). The origin of local protectionism strongly relates to the desire of local governments to keep the tax base within their jurisdiction and to stimulate local production of goods and services, which again translates into more local taxes.

Box 1.1. Administrative monopolies

Administrative monopolies are the abuse of administrative power with anti-competitive effects. The issue of administrative monopoly in China arises from the condition that State power penetrates into all aspects of the economy and the close link between monopoly enterprises and the government (Huang, 2008).

Administrative monopolies, as opposed to market monopolies, are brought to life by administrative departments. They are granted to a business through the issuance of regulations or statutes by administrative departments.

Most often they take the form of entry barriers to local markets or preferential pricing in input or output markets. Very often it may involve free resources such as land as input.

By OECD terminology, administrative monopolies would fall under the anti-competitive regulations of the product market regulation indicators and relate to scope of State involvement, barriers to entry and explicit and implicit barriers to trade and investment.

Source: Sheng et al. (2015).

While abuse of dominance cases by public utilities or other enterprises with dominant position can be addressed by anti-monopoly laws, as administrative monopolies stem from the abuse of power by administrative departments, anti-monopoly laws alone are not sufficient to tackle them, but also the power of those departments needs to be restricted and the rule of law strengthened. In fact, it is often the ambiguity of laws that grants discretionary power to implementing departments. The lack of clear and detailed implementation rules has provided large room for the interpretation of, for instance, foreign investment-related laws, leading to varying investment environments across the country. Therefore, to address the issue of local protectionism, a form of administrative monopoly, laws and regulations should be clearer and more specific to leave less room for discretion in their implementation.

The only publicly available systematic investigative research on local protectionism dates back to a decade ago (Li and Hou, 2008 and World Bank, 2005). The most protected industries by local governments in the early 2000s were tobacco and beverages, followed by transportation equipment, agriculture, food, utilities, petroleum, culture, education and health, medicine and electronics (Box 1.2). Local protectionism was manifest in the lack of judicial independence, government procurement and intervention in the labour market. The past decade and a half, has, however, brought about many structural changes and reforms are being pursued. With rapid ageing, labour shortages emerged, thus local governments are less tempted to protect their local labour markets. A path breaking change in making the judiciary impartial was the introduction of lifelong responsibility for judges for the outcome of the cases they hear. Furthermore, a professional career path has been established for judges and the financing responsibility of courts has been lifted to the provincial level. Nevertheless, the issue of local protectionism has not yet been rooted out.

Box 1.2. The DRC-World Bank questionnaire-based research on local protectionism

The research is based on a questionnaire sent and collected from 3156 firms (valid responses) in 2003. The questionnaire covered all provinces in China with larger samples in larger provinces. The studies based on the questionnaire (Li and Hou, 2008 and World Bank, 2005) identified 42 types of local protectionist practices, which were classified in the eight categories of direct control over the quantity of sales, price limit and local subsidy, discriminatory measures on quality inspection, informal restrictive measures to check local imports, intervention in the input of raw materials, intervention in the labour market, intervention in investment and financing and intervention in technology transfer.

Local protectionism was considered at that time particularly harmful in judicial independence, government procurement and intervention in the labour market. Most enterprises claimed that local judicial departments were delaying cases where outside enterprises brought local ones to court. The legal environment was considered the weakest in Heilongjiang, Guangxi, Shanxi, Jiangxi, Hubei, Guizhou, Yunnan, Shaanxi, Gansu and Ningxia, while firms in Shanghai, Jiangsu, Zhejiang, Fujian, Shandong and Guangdong had a higher appreciation of the operating legal environment. Local protectionism in government procurement was particularly serious in finance and insurance, posts and telecommunications, construction, science and technology, culture, education and health and in the regions of Beijing, Anhui, Jiangxi, Fujian and Sichuan.

Source: Li and Hou, eds. (2008) and World Bank (2005).

Local governments are now required to eliminate anti-competitive protectionist measures and implement Fair Competition Review Mechanism

The preponderance of protectionist policies has prompted the central government to order in December 2017 all local governments to undertake self-investigation of measures hindering competition and to eliminate them within a year. In fact, as of end-2018, altogether 820 000 documents have been checked, from which over 20 000 have been found to exhibit local protectionist behaviour, violate competition laws or constitute market barriers. Moreover, 2% of cities and 15% of counties have not yet put a Fair Competition Review Mechanism in place yet.

Highlighting the importance attached by the government to the issue, this Work Plan for Dismantling Barriers to Competition was jointly issued by the National Development and Reform Commission (NDRC), the Ministry of Finance (MOF) and the Ministry of Commerce (MOFCOM). Mirroring the Work Plan, a Ministry of Housing and Urban and Rural Development (MOHURD) issued a Notice in March 2018 calling for self-reporting by MOHURD bureaux at all levels of measures hindering an open, unified and competitive construction market. The aim is breaking administrative monopolies and dismantling illegal market barriers that limit cross-provincial activity. Furthermore, eight ministries and agencies promulgated in May 2017 (Fagai Diqu No. 2017/922) the Guiding Opinion on the Development of Enclave Economies (special areas where superior experiences of another locality are put in practice through joint management), which explicitly targets the elimination of cross-regional barriers. It mentions the mutual recognition of administrative licences, registration, customs procedures and the results of quality inspection. Although this Guiding Opinion is focusing on the Enclave Economies specifically, the above articles have much wider implications for creating a single product market.

The Work Plan follows the historical State Council Opinion Establishing a Fair Competition Review Mechanism as a Way of Building a Market Economy in June 2016 and its Detailed Rules of Implementation in October 2017. It identifies government-sponsored or –sheltered anti-competitive behaviour as "local protectionism, regional blockade, industry barriers, business monopoly, granting preferential policies in violation of the law or illegally prejudicing the interests of market players". The Opinion defined the 18 review criteria of the Fair Competition Review Mechanism and the Implementation Rules clarified the conduct that is prohibited under each. Not even a single criterion can be violated, otherwise the proposed regulation or other measure cannot be promulgated. While the Implementation Rules make sure that no anti-competitive administrative monopoly will be established in the future, the Work Plan aims at addressing the accumulated stock of such measures.

The Opinion can be viewed as an initiative with more "teeth", as the Anti-Monopoly Law provides little remedy for anti-competitive government actions (Chan, 2009). Indeed, there is no mechanism defined by which administrative monopolies could be effectively broken. Article 51 of the Anti-Monopoly Law designates the superior authority of the violator to address such conduct, but such authorities may not be impartial in solving disputes. The same Article also puts forward potential administrative penalties for the persons directly responsible for the abuse of power.

Even though the Opinion might have more "teeth", it does not provide for any specific sanctions if a government body does not comply. For individuals there are mentions of the prospect of being subject to government disciplinary rules for contravening the Opinion. Litigation is possible under the Administrative Litigation Law of 1989 (amended in 2017), which bans abuse of administrative power and anti-competitive behaviour. In addition, anti-monopoly enforcement in general, lacks independence. The merging of the former three enforcement agencies into one may raise independence and enforcement powers. Enforcement also needs to be more transparent and rule based.

Administrative monopolies are widespread

While there are no comprehensive data on the extent and the types of administrative monopolies, recent disclosures by government agencies provide some insights into the plethora of measures that local governments adopt to protect their industries. As of April 2018, most measures targeted by the cross-sectoral national Work Plan and disclosed by the former Price Supervision and Anti-Monopoly Bureau of NDRC (now under the newly created State Administration for Market Regulation) were in residential construction, service procurement, tendering, insurance and medical goods and services (Figure 1.1). They relate to choosing specified service providers and excluding outside firms from participation in local tenders (Figure 1.1). The number of publicly reported cases over 2014-17 totals 61, which is the result of the central government requirement to report two cases by province. Over half of the cases were reported by NDRC, while a third by the public (Figure 1.1) and 28% are related to public procurement (Figure 1.1).

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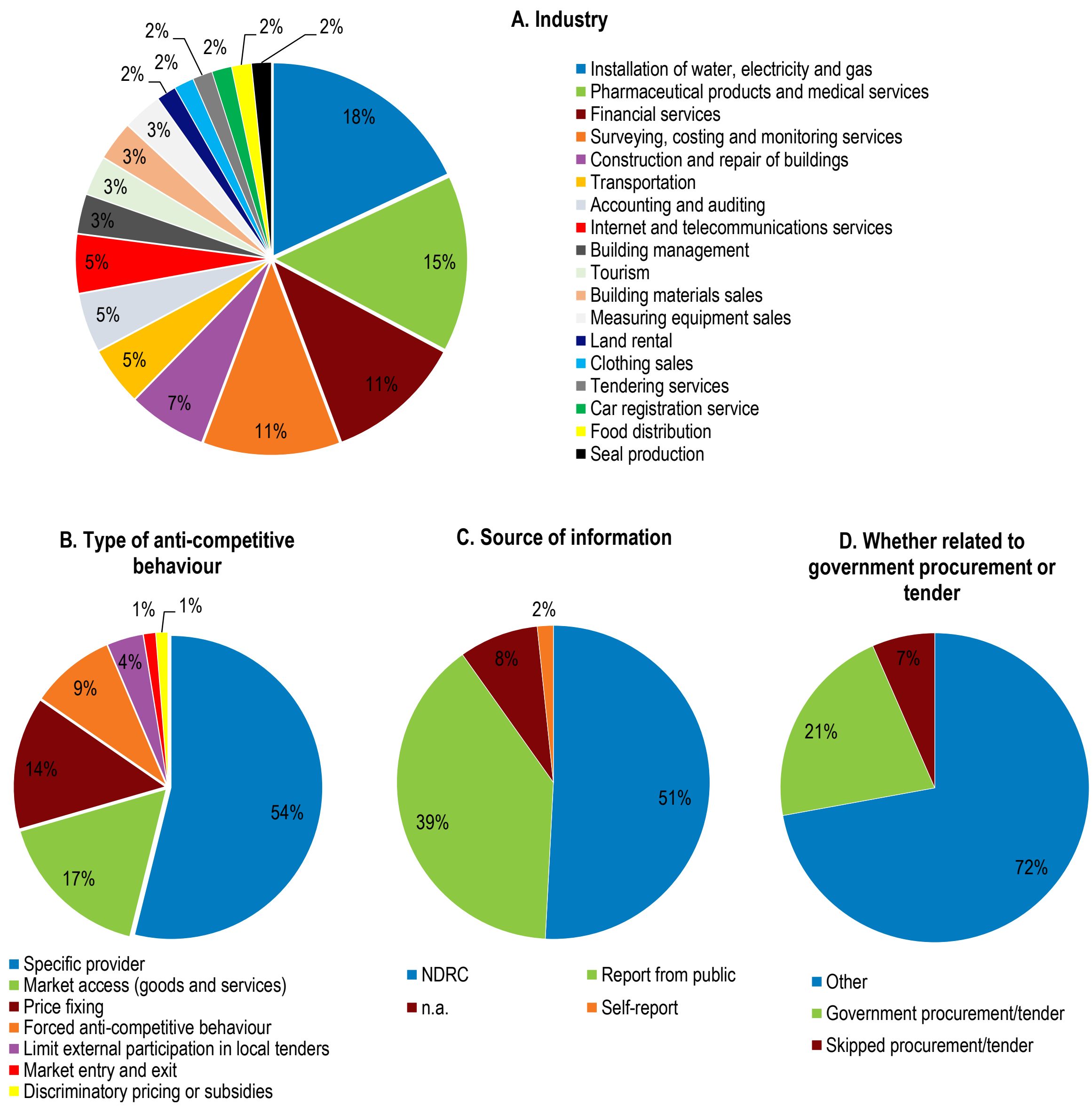
Figure 1.1. Local protectionism is mostly manifest in purchasing goods or services from specific providers, in particular in the construction industry

Percentage of cases



Note: Panel A is cases by industry, each case belongs to a single industry. Panel B is cases by the type of anti-competitive behaviour, one case may involve multiple types of anti-competitive behaviour. The chart is limited to reported cases (totalling 61) by the Price Supervision Bureau of the National Development and Reform Commission over 2014-17.
Source: Price Supervision and Anti-Monopoly Bureau, National Development and Reform Commission.

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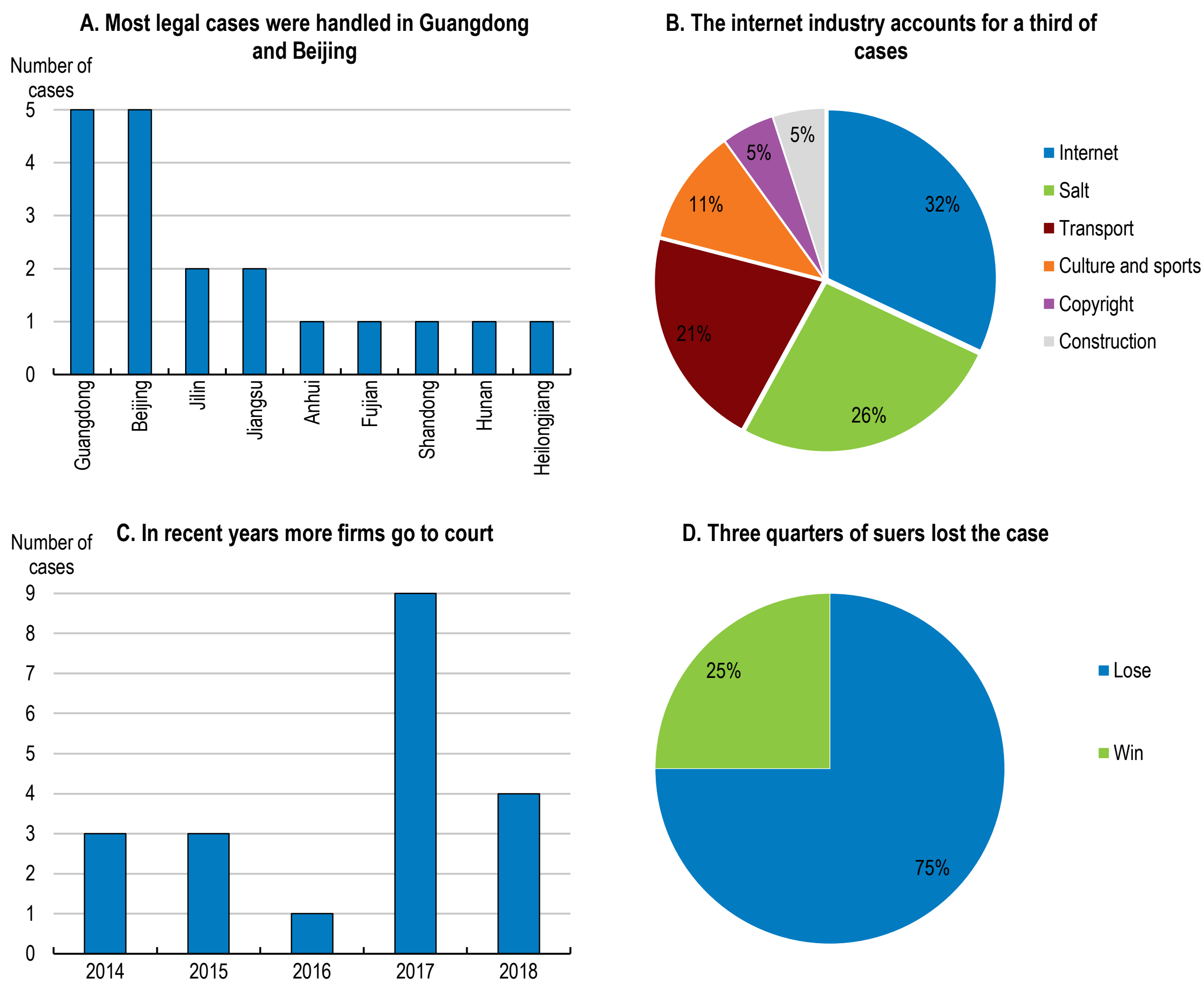
The number of cases that made it to court is even fewer at 20, mainly in Guangdong and Beijing (Figure 1.2) and mainly in internet, salt and transport industries (Figure 1.2). In 2017-18 the number of cases increased relative to previous years (Figure 1.2) and in three-quarters of the cases the government company won the case (Figure 1.2). Taking a local government to court would be the very last choice for any firm wishing to do business in that locality. Anyway, even if they decide to sue the local government, they have little chances to win. The low probability for the plaintiff to win the case relates to the obligation to prove abuse of power by the administrative department, which is in most cases difficult. Moreover, even if the plaintiff wins, as some of the cases demonstrate, it has no compensation except perhaps the court fees (not including lawyer charges). Owing to the fear of potential consequences, many firms find ways to put up with the various local protectionist regulations. Removing the heavy burden to prove abuse of administrative power would help reveal more administrative monopolies and so would easing the financial burden of suing.

The requirement of registering a subsidiary or a branch in order to conduct business is deemed illegal, though is being practised widely (Table 1.1). While laws and regulations may vary across sub-national governments in OECD countries with federal systems, a company registered in one jurisdiction can do business countrywide without having to register in other ones (though may need to acquire the necessary licences). In China, local governments require registration on security grounds, they consider that a firm registered locally would be easier to trace in case needed for accountability purposes. Another reason is tax purposes. Companies pay income taxes in the locality where they are registered, while their non-legal person subsidiaries (i.e. subsidiaries that are not stand-alone companies) jointly pay only 50% of the group's income taxes. Corporate income taxes are shared in a 60:40 proportion between the central and local governments. Value-added taxes are usually paid where the activity takes place, even if it is in a non-legal person subsidiary, except when the group follows the consolidated tax collection method, i.e. the headquarters pay all VAT, but this requires approval by local finance and tax bureaux where the headquarters are located. Clearly, local governments with headquarters have incentives to promote the consolidated collection method for firms headquartered in the respective locality. Foregoing value-added and corporate income tax revenues appears a significant barrier to scrapping the registration requirement. To effectively eliminate that requirement, company-related taxes, including the corporate income tax and the value-added tax, would either need to entirely be collected at the central level, or at the place where the economic activity such as production or sales takes place and not where the firm is registered, without exceptions. Otherwise sub-national governments would find ways to entice firms to register locally.

Figure 1.2. Wealthier provinces, the internet industry, recent years saw more cases and most were unsuccessful

Distribution of cases of administrative monopoly that restricts competition at the local level



Note: Altogether there were 20 cases filed as of April 2018.
Source: Referee Instruments Network, available at http://wenshu.court.gov.cn.

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Table 1.1. Protectionist measures in procurement and transportation are rampant

Selected anti-competitive measures stipulated in local regulations

Area and type of anti-competitive behaviour	Enactment year	Province/City	Document or project	Content
Procurement: requirement to register locally	2018	Xinjian qu, Nanchang, Jiangxi	Tax administration document	Local registration is a condition for construction companies to participate in the bidding process
	2015	Beijing	Beijing public hospital procurement	Higher credit for firms registered in pilot area, which exists only in Beijing
	2015	Shanxi	Shanxi basic medicine and low-price medicine central procurement tender	Constraining sales area for outside winners: they need to choose either the North or the South of Shanxi, while local firms can cover the whole province
	2015	Liaoning	Economic and technical evaluation criteria for the implementation of central procurement of medicine for Liaoning hospitals	Up to 2 Liaoning taxpayers with a local brand can enter the bidding process in addition to the allowed number as long as they can provide at the same price
	2015	Shenzhen	Government procurement document for equipment for police use	Local representation is a condition for participation in the bidding process
	2011	Inner Mongolia	Inner Mongolia government public procurement for network and other equipment	At least one year of local license holding is a condition for participation in the bidding process
Procurement: using a specific service provider	2018	Fengqiu, County, Henan	County government meeting minutes	Zhongnuo Ltd was appointed as a sole provider of medicine and medical equipment in the county
	2018	Yichun and Yingtan, Jiangxi	Notice on salt sales	Yichun and Yingtan City designated the list of salt wholesalers in their jurisdictions
	2017	Tianmen, Hubei	Notice on the treasury management of migrant salaries in construction projects	The Human Resources and Social Security Bureau of Tianmen City designated three banks for construction firms to open migrant accounts
	2017	Luan, Anhui	Procurement notice on purchase of production liability insurance	Production liability insurance in 18 industries must be bought from a designated insurance company in case of participation in procurement processes
	2017	Shanghai	Notice on 2016 year-end audit of pawnshops	Shanghai Commercial Bureau appointed an accounting company to audit all pawnshops
	2017	Xi’an	Notice on real estate property right registry work by the Land Resources Bureau of Xi’an	Two companies were appointed for the surveyor and measuring work in two city districts
	2016	Beijing	Gas Development Centre of Fangshan District contract	All developers must hire the affiliate of the Gas Development Centre for gas construction work in the district
	2016	Nanchong, Sichuan	Medicine delivery contract	Nanchong Taiji Medicine Ltd was appointed as a sole deliverer for commissioned medicines in Xichong County
	2014	Jinzhong, Shanxi	Housing and Urban-Rural Development Bureau meeting minutes	Shanxi Henglong Ltd was appointed as the sole examiner of all construction plans

	2013	Inner Mongolia	Inner Mongolia Police Bureau procurement document for electronic and physical stamp systems	The provincial police bureau imposed the service package for stamp systems produced by Jinfeng Co Ltd, registered in the provincial capital, on all police branches in the province and stamps issued by other companies not using Jingfeng's system were not approved by the provincial police
	1995	Beijing	Beijing Traffic Regulator contract	Beijing Traffic Regulator appointed the Beijing Branch of the Industrial and Commercial Bank of China as sole collector of traffic fines
Market access	2018	Linyi, Shandong	Selection of tendering agencies	The tendering agency is selected by lottery, not by merit
	2017	Hunan	Providers of power plant equipment	The number of providers of equipment for small-scale power plants is limited
	2010	Zhongshan, Guangdong	Gas industry code of conduct	Bottled gas providers must join industry association and pay guarantees. Market segmentation
	2017	Suzhou, Jiangsu	Suzhou driver training market plan	New entrants to the driver training market must use a software, through which registration is more expansive than through other means
Price fixing	2016	Jinan, Shandong	Notice on standardising solar-power heating systems	Authorities penalise companies selling solar power equipment below the agreed price by the local industry association
Goods transport: treatment of local and outside trucks differs	2018	Guangzhou	Notice on further adjusting truck circulation in city area	Circulation restrictions differ for trucks with local and outside plate numbers in terms of truck size and time
	2014	Beijing	Notice on reducing emission of polluting matters by restricting circulation	Circulation restrictions differ for trucks with local and outside plate numbers in terms of restricted zones and time
	2017	Chengdu	Notice on truck circulation restriction in Chengdu in 2018 by the Chengdu City Police and Transport Management Bureau	Outside trucks cannot apply for permit to enter city centre area

Source: OECD compilation from publicly available local regulations.

Discrimination of outside service providers in land transport is also rampant. Circulation restrictions differ for trucks with local and outside number plates in several large cities including Beijing, Chengdu and Guangzhou (Table 1.1). Different parameters are set in terms of weight of the truck, restricted area and time. While restricting trucks in inner city areas is reasonable for environmental purposes, prioritising local trucks excludes competitors and therefore may result in higher prices and lower efficiency.

Some of the behaviours triggered by administrative monopolies are not based on any official document, but are observed during implementation. While all eligible firms for VAT refund on exports have the right to it, local governments may delay the refund and therefore force the exporters to provide free "credit". Similarly, suppliers' profits can also be expropriated by delayed payment. Such behaviour imposes extra burden on exporters and suppliers, hurting their competitiveness.

As proponents of regulations establishing administrative monopolies often portray themselves as protectors of consumer interests, it would be useful to require the regulator to identify the particular market failure or systemic issue before enacting any new regulation.

Even when there is no discrimination of outside providers, the fragmentation of the regulatory system implies that a company seeking country-wide operations is required to obtain a licence in each single city. The example of Didi Chuxing, an online car hailing company show that it may take three entire years to obtain operating licences in the 300 prefecture-level cities (the applications cannot be done simultaneously in multiple places as original company registration documents need to be submitted). A recently adopted remedy for having to obtain a licence in each city for courier companies is in effect since May 2018. State Council Order No 697 allows courier companies to establish service stations by simply registering at the local postal regulator as long as they have a licence already in one city.

An even more serious concern is the lagging behind of regulations relative to some new industries. For instance, online truck hailing regulations have been issued only in a couple of provinces and in others they remain in a grey area. National-level regulation would not only solve the status of such new services providers but would also substantially reduce transaction costs and enhance efficiency.

Government procurement was already a decade and a half ago one of the areas most prone to administrative monopolies. Even though rules have become stiffer, it is still the case now. Eight of the 61 cases reported by NDRC relate to tendering and many more can be traced in the press and media. In some industries, where the practices of compulsory local registration and discrimination in tenders are more common, such as construction, the government has issued specific documents. Given the cross-cutting nature of the issues, MOF, SAT and MOHURD issued a joint Opinion in September 2017 aiming at creating a competitive market environment. To avoid any potentially competition-hindering clause in tender documents, they could be reviewed by competition authorities.

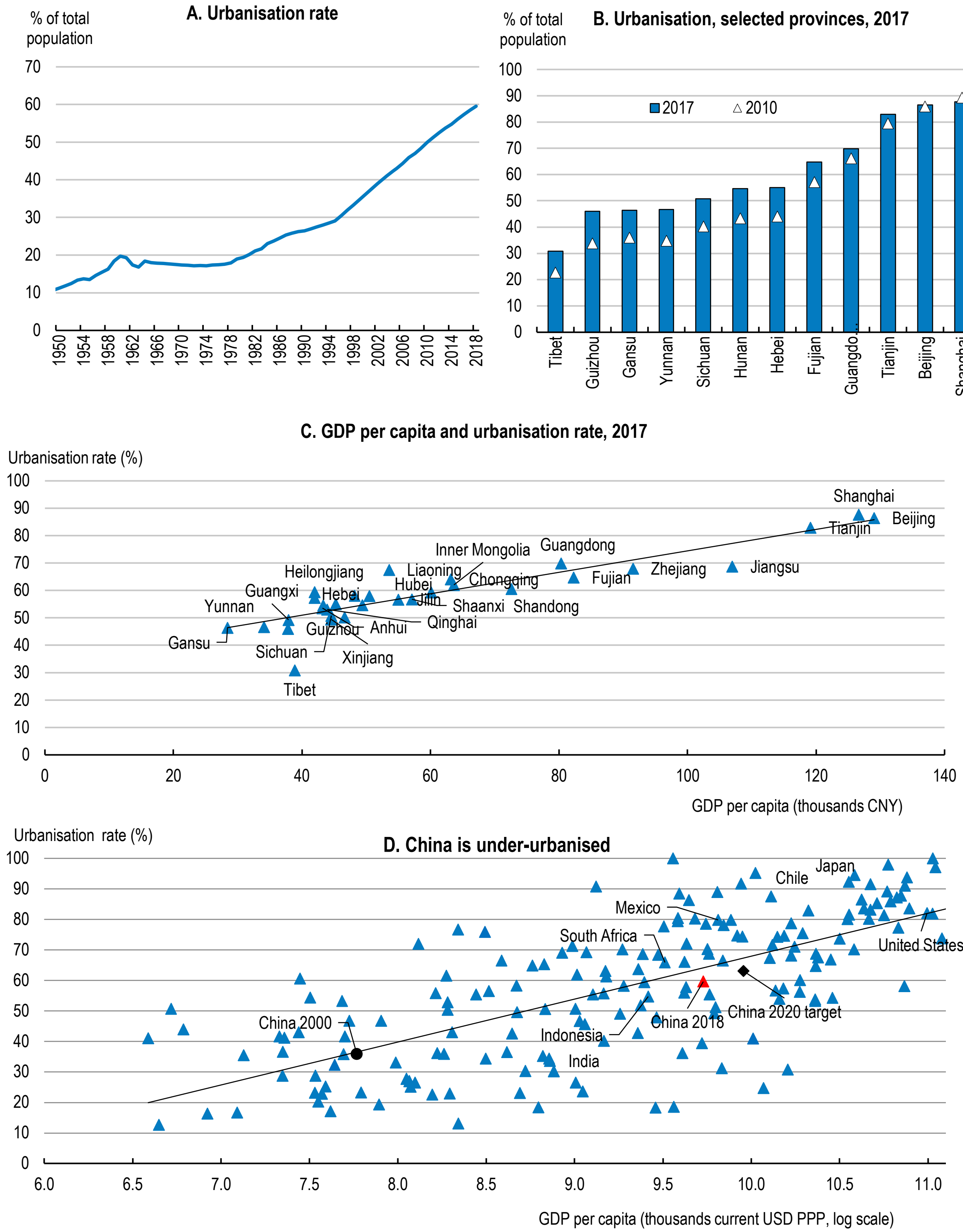
Local registration, however, even though may be required by local governments to do business, is often not sufficient for participating in local tenders, as conditions for participation may require a certain number of years of operation in the province or city. Network and other equipment providers in Inner Mongolia, for instance, must be locally registered and must hold a local license to bid for government procurement contracts. To overcome this requirement, outside firms often team up with local ones to bid for local contracts.

Another way of restricting outside competition is requiring the use of certain technologies (which “happen” to be the ones held by local competitors) to deliver services. A typical example is environmental services, where the central government requirement is to meet certain targets, but local governments may add the type of technology to use as an additional condition in the tender document. Environmental and other service delivery should be technology neutral. This way not only a more level playing field would be established, but it would also encourage innovation to discover new and more efficient technologies to meet the targets.

Creating a single labour market for stronger growth and inclusiveness

Although no work permit is needed for a Chinese citizen to take up a job outside of the place he or she is registered, several factors, such as the linking of the provision of public services to the household registration or *hukou* and limited portability of pension rights, hinder labour mobility. Notwithstanding such obstacles, economic incentives have led in recent decades to a massive wave of migration, mainly from rural to urban regions, resulting in a sharp increase in the (residence-based) urbanisation rate: from 32% in 1995 to 59% in 2017. In contrast, based on *hukou,* the urbanisation rate would be 24% and 42%, respectively, a sharp contrast to the residence-based rates. The difference is the migrant workers (be it manual workers or skilled professionals), who do not have local *hukou* at the place of their residence. The number of migrants amounted to 286 million in 2017, about 20% of the population (Box 1.3). A more unified labour market can improve resource allocation partly through further increase in urbanisation. A greater extent of urbanisation in turn, can lead to higher economic growth as labour productivity in cities, and their surrounding regions, tends to be higher, due to the benefits stemming from agglomeration (OECD, 2014). Furthermore, provinces differ greatly with regard to their urbanisation rates, and closing the provincial urbanisation gap can improve equity as low urbanisation rates are associated with low per-capita incomes (Figure 1.3). Increased urbanisation can also aid China's attempts to boost private consumption (Molnar et al., 2017). Although the national urbanisation rate has increased dramatically in the last two decades, China's urbanisation rate is still low compared to countries of similar level of development (Figure 1.3) and thus unifying the labour market can lead to further economic gains.

Figure 1.3. Urbanisation is progressing but still low in some provinces



Note: Panel D includes all countries with populations over 15 million for 2017.

Source: CEIC database; OECD calculation based on CEIC database; World Bank World Development Indicators database; IMF Word Economic Outlook database; and National Bureau of Statistics.

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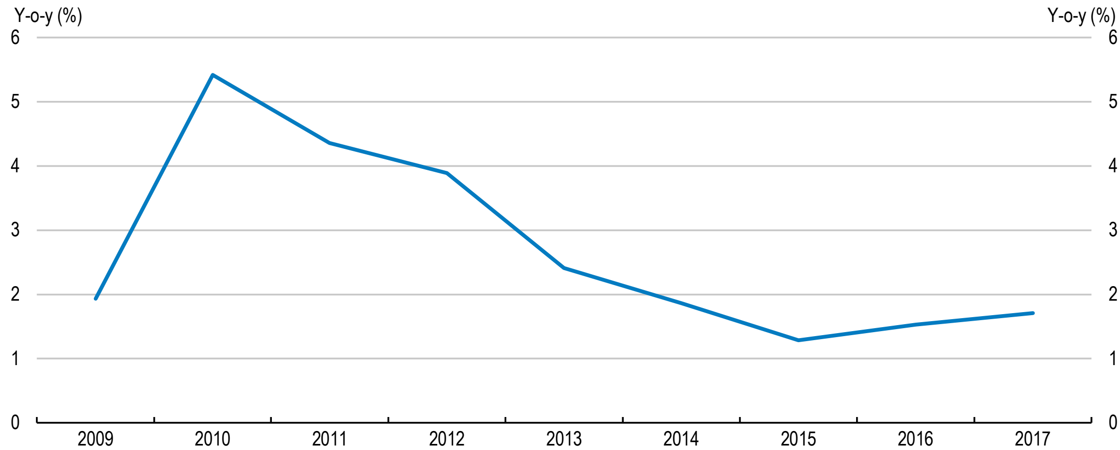
Migration enhances urbanisation and productivity but it also creates de-facto second class urban citizens; this has social and economic ramifications. Not all rural-urban migrants want to convert their *hukou,* since that may mean losing their right to their rural lands, but when they are interested, their chances differ by city and according to migrant characteristics. University graduates are in high demand and have better access to a local *hukou*; more than 50 big cities have recently initiated policies to attract college graduates. Xi'an, for example, offers from February 2018 local *hukou* for university graduates and plans to attract a million graduates through this scheme. This and similar plans in Tianjin, Nanjing and other big cities mainly target young graduates from other cities and contribute to a better integration of the national graduate labour market. In some cities, home ownership increases chances to get a local *hukou*, but sometimes only houses above a certain threshold are considered. In general, it is harder to obtain a *hukou* in bigger, wealthier cities, where demand is high and local authorities often try to control the population size. In these cities, applicants need to go through a screening process, which considers many factors through a credit system. The vision of attracting migrants to smaller cities and towns, rather than to bigger cities, could potentially help develop more metropolitan centres and address the issue of over capacity of residential housing in those places, while also preventing overpopulation and the creation of slums in the biggest cities. The major issue with this vision, however, is the lack of attractiveness of such cities for prospective migrants.

In an attempt to both boost urbanisation and address the migrant issue, the New Urbanisation Plan announced in 2014 aims, among other things, to grant to around 100 million rural migrants urban *hukou* by 2020. The NDRC Plan (Fagaiban Guihua 2018 No. 1190) issued in October 2018 to grant urban *hukou* for 100 million non-*hukou* holders pays special attention to rural migrant families who have been residing in cities for at least five years and who have school-age children. Furthermore, the Plan envisages an increase in urban construction areas corresponding to the number of new *hukou* holders. Even more importantly, it guarantees rural residents -- who take up an urban *hukou* -- their agricultural, residential and collective land rights. The growth of the migrant population started to slow in 2011 and this trend continued after the release of the Plan (Figure 1.4) notwithstanding the narrowing income gap between urbanites and migrants (Molnar et al., 2017). The slower migration growth rates could be driven by a shrinking pool of potential rural-urban migrant workers. Taking into account the age and human capital profile, according to some estimates, only 30 million of the current rural population could potentially migrate and work in urban regions, which could slow future urbanisation growth (Cheng, 2016). While the 2014 urbanisation plan is ambitious in scale, even if fully implemented it will only address the status of around 35% of the current migrant population.

Figure 1.4. The growth rate of the migrant population is slowing



Source: National Bureau of Statistics.

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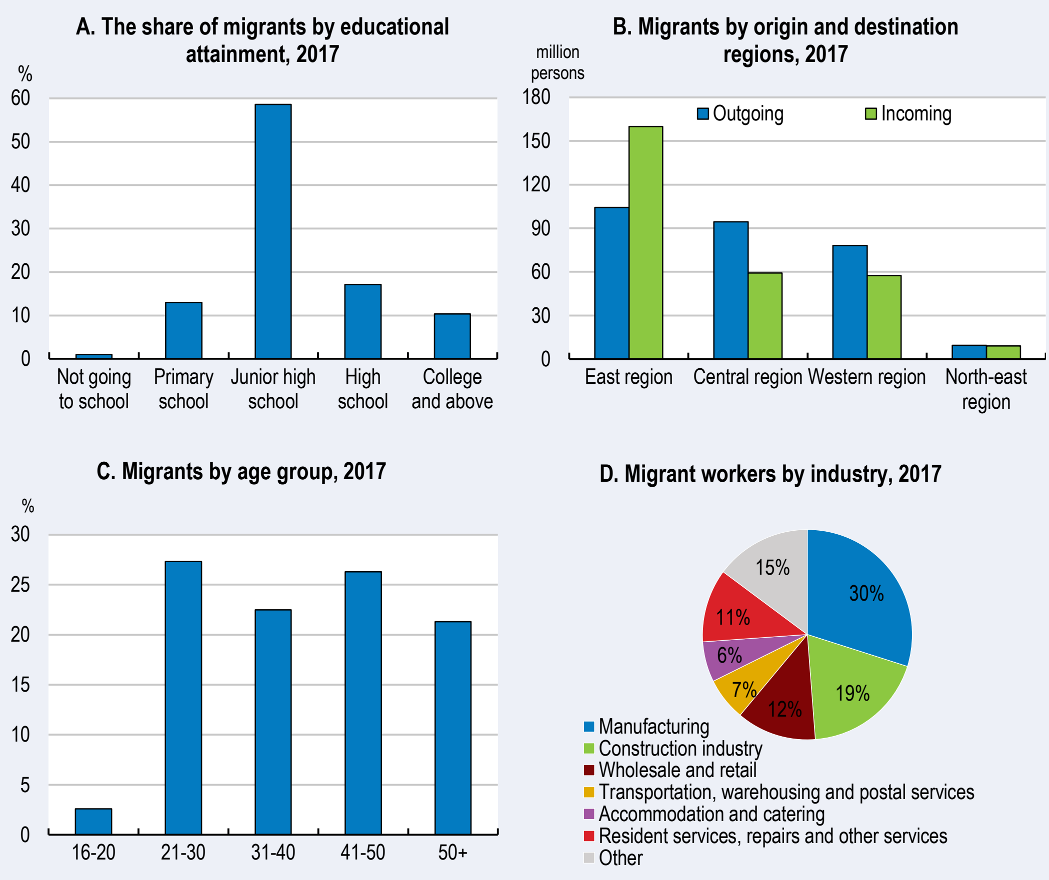
Box 1.3. Migrants' characteristics

The majority of migrants come from rural areas to work in cities and the second largest group are urban residents who moved to work in other cities. Geographically, the general direction of migration is toward the east (Figure 1.5) but most migrants don't travel far from their household registration area. For example, the share of migrants in Guangzhou and Shenzhen who come from the same province are 56% and 46%, respectively and the share who come from neighbouring provinces is 27% and 30%, respectively (Baidu, 2017). The migrant population is generally young with most under the age of 40 (Figure 1.5), as most migrants only move to cities for temporary employment and then go back to their original location. Also, for older migrants it is more difficult to find a job in cities and staying after retirement can be prohibitively expensive. Although 10.3% of migrant workers are college graduates, but most did not even attend high school and perform simple tasks for low to moderate pay (Figure 1.5). Manufacturing, construction, and wholesale and retail are the three major industries employing migrants, jointly 61% of them (Figure 1.5).

Figure 1.5. Migrants are young and have little formal education as of 2017



Note: The Figure includes intra-region migrants.
Source: National Bureau of Statistics, Migrant Workers Monitoring Survey, 2017.

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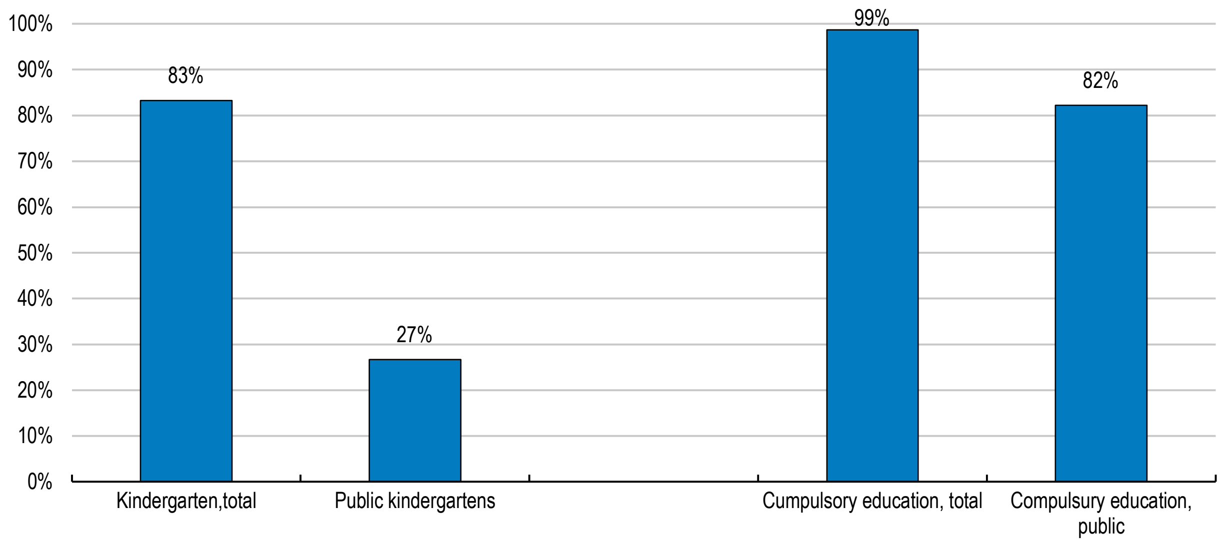
Since the Urbanisation Plan was released, a number of implementation measures have been adopted by local governments. For example, Hefei, the provincial capital of Anhui, relaxed the requirement to obtain a *hukou* to two years of employment and one year of contribution to social security in the city and Changsha, the provincial capital of Hunan, since June 2018, issues *hukou* for all migrants who paid income tax in the city for at least 12 months. Dongguan City in Guangdong Province abolished the credit system for obtaining *hukou* in February 2018 and rural workers with a resident card over five years and at least the same length of social security payments are eligible for local *hukou.* Several cities have made it easier for tenants to obtain local *hukou* (for home-owners it had already been made easier to obtain urban *hukou*). Kunming, the provincial capital of Yunnan Province, for instance, grants *hukou* for tenants with at least of three years of pension contributors in the city. Furthermore, several provincial government guidance funds to finance urbanisation-related projects were created, such as a CNY 20 billion fund in the Hainan Province, which could help improve the infrastructure for new urbanites. Furthermore, all provinces have published plans to unify the urban and rural *hukou*, which will improve the services offered to rural residents and improve mobility, though implementation will take time.

Public services to migrants are still limited

Many public services, such as education and health, are linked to *hukou*. Thus, although migrants' access to public services improved in recent years (OECD, 2017), coverage rates for some services remain low and differ by city. The access of migrants' children to public schooling has improved in recent years; the compulsory school attendance rate in 2017 for migrant workers was 99% though only 82% of the children attended public schools; over 77% of migrant workers were happy with the quality of their children's teachers. However, access to public kindergartens remains low; although most migrant children between the ages 3-6 attended kindergartens, only about one quarter attended public establishments (Figure 1.6) and 55.7% of migrant workers reported they faced admission difficulties. It should be noted, however, that even urban *hukou* holders often have limited access to public kindergartens. Migrants spend less than half in per capita terms on education than urban people (for comparison, the per capita health spending difference is much smaller at less than 50%). Migrants' children's access to top-quality higher education is also limited, since some top universities give preferential treatment to applicants with local *hukou* by setting lower minimum admission scores and other measures. While migrants can, in principle, take the national higher education entrance examination (*gaokao*) at the place of their residence and be considered as locals, the conditions for this are demanding and exclude many. For example, in Beijing the migrants must have payed social insurance for six consecutive years so that their child qualifies to sit for the *gaokao* locally.

Figure 1.6. Admission rates in kindergartens and schools is still low for migrants' children

Admission rates for migrants' children in cities, 2017



Source: Migrant Workers Monitoring Survey, 2017, National Bureau of Statistics.

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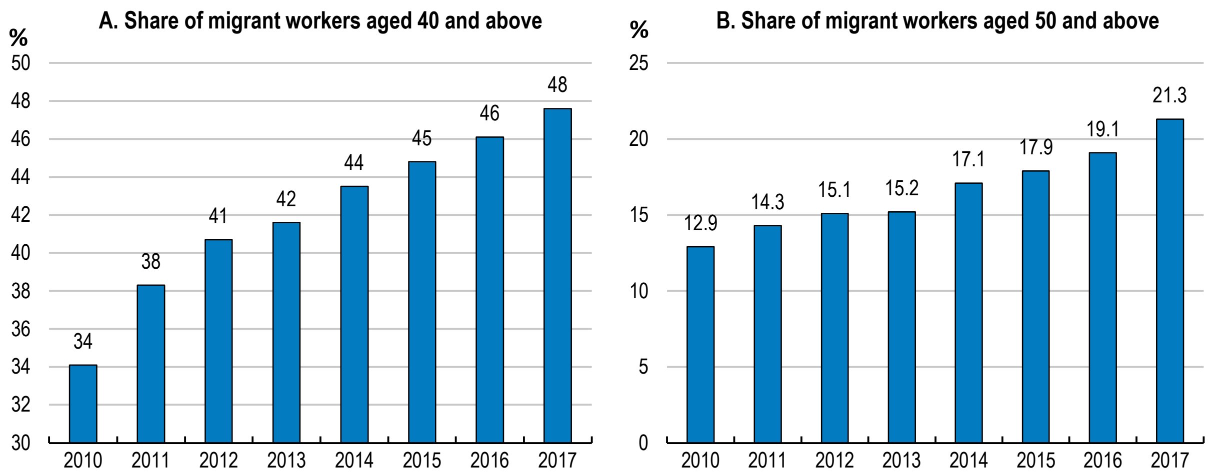
Public health insurance for migrant workers and their families is also inferior to that for people with a local *hukou*. In most cases, migrants face lower reimbursement rates compared to locals (Müller, 2016). As part of the attempt to improve the portability of health insurance, a nationwide network for the settlement of cross-regional medical treatment has been established and as of May 2018 it included over 9,000 medical institutions. Migrants can use medical services at institutions which are part of this network and the treatment charges will be directly settled with their local insurance. So far, over 500 thousands payments have been made through this system. However, this network still covers only a fraction of medical institutions. There are no legal barriers for migrants to enrol in the local health insurance scheme, but only 13% are enrolled (Hou and Zhang, 2017). The low rates of migrant's local health insurance partly reflect personal preferences but the higher urban health insurance cost may also play a role.

The pension system is fragmented and hinders labour mobility

Migrants are generally young and of working age, but as is the trend in the general population, the migrant population group is also ageing and so securing a sufficient pension is becoming a pressing issue for many of them (Figure 1.7). However, the pension system is fragmented with not only provinces having their own schemes, but in some cases, even cities in the same province have different pension schemes. While some basic parameters such as the retirement age or the minimum number of years of contributions for eligibility are the same, employer contribution rates can vary widely across the country. Pensions are also managed separately, which can create problems for migrants who go through multiple pension systems during their lifetime. The transfer of a pension annuity between regions can be complicated. Due to differing recording practices of pension rights and differing items in the accounts, in practice, the transfer sometimes may be impossible. Also, since the pension annuity is linked to the average local wage, there is an incentive for migrants to work in rich cities, where the supply of migrant workers might already be very high. To be entitled to pensions in a city, the migrant must have worked there for at least 10 years and it must be the last place before his retirement where he worked that minimum number of years. Although this may seemingly create incentives to spend the last decade or so before retirement in Shanghai, which has the highest average wage, for a middle-age migrant worker it may not be easy to find a job where competition is stiffest.

Figure 1.7. The migrant work force is ageing

Share of migrant workers who are 40 or 50 years old or above



Source: Migrant Workers Monitoring Survey, National Bureau of Statistics.

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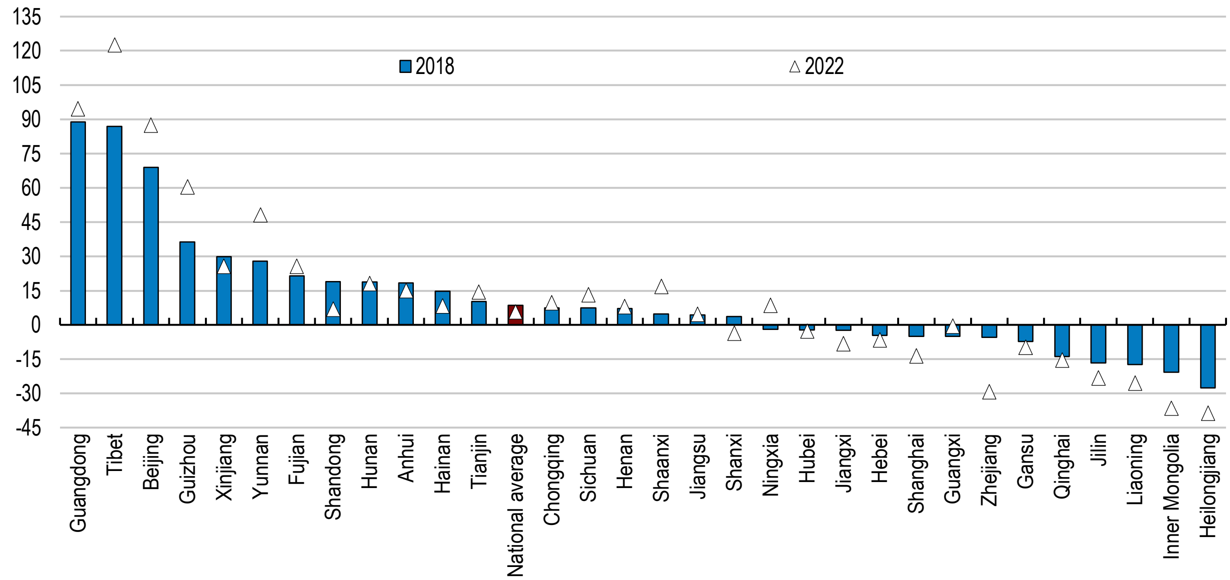
The spatial fragmentation of the pension system has repercussions on the revenues and disbursements, and thereby the sustainability of each local pension fund. Provinces with a younger population that are able to attract migrant workers tend to have a surplus while others have deficits (Figure 1.8). Migration has indeed exacerbated regional disparities in pension fund revenues and disbursements (Wang, 2017). Some cities in provinces such as Guangdong, which enjoy a big surplus partly due to having many migrant workers (22 million in 2016), have a lower employer contribution rate than the recommended 20%, which boosts competitiveness and economic activity. The city Dongguan, for instance, charges employers only 11%. In contrast, migration source-provinces often cannot cover pension disbursement from their receipts. To address this imbalance, the national pension fund collects 3 percentage points of the employer contribution (of 20%) and transfers it to deficit provinces according to a set formula. However, these transfers are not sufficient to completely fill the gaps. According to the forecasts of the China Pension Actuarial Report, deficits and surpluses are expected to grow in the coming years, even after taking the transfers into account. The transfer rate, therefore, will increase over time. In a further attempt to stabilise the pension system in deficit provinces, the central government has recently established an adjustment fund which will draw portions from the stock of accumulated pension funds, rather than from the mandatory employer contribution to pension funds, as already done, and redistribute them; contribution to the fund will start from 3% annually and can increase according to a formula dependant on factors such as average wages and redistribute the money according to the number of retirees.

Figure 1.8. Government support doesn't prevent growing pension deficits

The ratio of pension fund surplus to pension annuity payments by province



Source: Zheng, B. (ed.) (2018), China Pension Actuarial Report 2018-2022.

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Unification of the pension system can address many issues such as portability of pension rights or financial sustainability of local pension schemes. However, to achieve long-term sustainability at the national level, further steps will be needed, such as increase of the retirement age, which is now lower than in OECD countries and is not in line with life expectancy. The implementation of pension system unification will require harmonising many different systems. For example, regions that today have an actuary surplus are able to encourage local economic activity by having a lower employer contribution rate but should increase it to the statutory level in order to harmonise the system and thereby enhance sustainability. Furthermore, more rigorous collection of contributions would boost social security revenues.

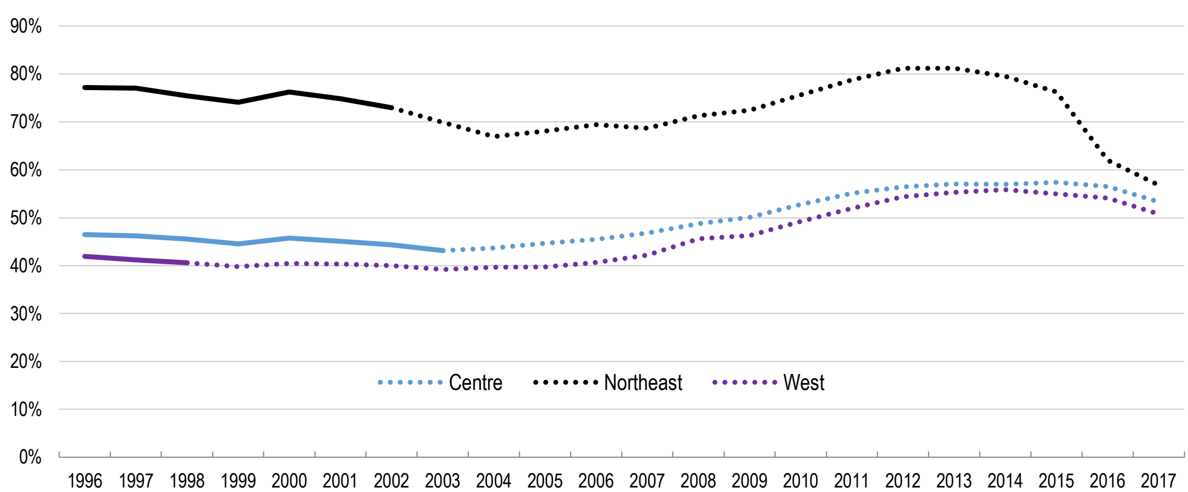
Regional policies to help laggard regions catch up

Better exploiting regional potentials by establishing a single labour and product market will raise productivity in the medium-to long run through economising transaction costs. In the short run, however, some regions may be negatively impacted. In the case of the product market, for instance, the phasing out of monopoly rents related to local protectionist measures may adversely affect local revenues in some cases and therefore may require additional higher-level transfers to meet basic spending needs. This would be the case if governments with weaker fiscal positions are more protectionist, and that in turn would lead to greater spending disparities. In contrast, if innovative firms in laggard provinces had a level playing field in doing business and in particular accessing government procurement markets in wealthier ones, that could boost profits and thus tax revenues in their province of origin, therefore reducing disparities. The elimination of differences across household registrations would improve labour mobility, but without a substantial reduction of disparities in the quality of public services across the country, it would potentially lead to further overcrowding in the largest cities. Improved pension portability without unifying the currently fragmented system, would result in even greater deficits of social security funds in provinces that are sources of migrants.

To counter those effects, greater transfers and re-thinking of spending assignments may be needed, complemented by a set of policies to support catching up of laggard regions. There are signs that Chinese regions at different levels are converging in terms of per capita incomes (Figure 1.9). Disparities in GDP per capita measured by the Theil index at the province level at 0.09 (in 2016) are lower than across Indian states (0.15 in 2014), but higher than across US States (0.04 in 2016). In contrast, they are high within provinces, which largely reflects the urban-rural divide. The example of the European Union also illustrates that it appears easier to reduce disparities across higher-level units (in that case, countries) than within those units (i.e. EU regions). Those countries that managed to reduce the gap between frontier and laggard regions did so by building infrastructure to link those regions to global value chains, nurturing large tradable sectors and creating well-functioning cities (OECD, 2018). In China, while fiscal redistribution is important, infrastructure investment, better coordination among local governments and greater integration of cities with surrounding areas could also reduce disparities.

Figure 1.9. The West and the Centre are catching up, but not much the Northeast

Regional GDP per capita as a percentage of the Eastern region's



Note: Dotted lines indicate the periods in which regional development programmes were active. The Centre includes Anhui, Henan, Hubei, Hunan, Jiangxi and Shanxi; the East Beijing, Fujian, Guangdong, Hainan, Hebei, Jiangsu, Shandong, Shanghai, Tianjin and Zhejiang; the Northeast Heilongjiang, Jilin and Liaoning and the West Chongqing, Gansu, Guangxi, Guizhou, Inner Mongolia, Ningxia, Qinghai, Shaanxi, Sichuan, Tibet, Xinjiang and Yunnan.
Source: OECD calculation based on CEIC database.

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Redistributing for greater equity

China's fiscal system is unique with a seemingly high level of decentralisation on particularly the spending side, albeit with little autonomy at the local levels (Box 1.4). Moreover, the key spending items for growth and inclusiveness such as education or health are assigned to the county level, which is the lowest in the public finance administration and has little own revenue, let alone autonomy.

Box 1.4. Institutional arrangements for fiscal governance

China's public finance administration system usually refers to the central, provincial, prefecture (or city), county and township level governments.

The revamping of fiscal relations is now on the agenda again and time is ripe as the most recent major change in inter-governmental fiscal relations is the 1994 tax sharing reform, which achieved a higher central government revenue share. Since then, sharing rules have been modified for some taxes, but the system as a whole remained unchanged. The major tax revenues are subject to explicit sharing formulas between the central and provincial governments. The VAT is shared in a 50:50 proportion temporarily as the business-tax to VAT conversion deprived sub-national governments of a major revenue source (prior to the conversion 75% belonged to the central and 25% to sub-national governments). Income taxes are shared in a 60:40 proportion between the central and sub-national governments (corporate income taxes paid by financial institutions and the railway corporation and personal income taxes on interest income belong to the central government). Resource taxes belong to sub-national governments except offshore oil taxes, which are assigned to the central level. The central level has few tax sources exclusively assigned to it, though tariffs are. In contrast, several smaller taxes such as the contract tax and taxes on land use are assigned exclusively to the sub-national level. While these taxes are reported on the general budget account, some of the major revenue items for many sub-national governments, such as revenue from land right sales, are on the fund account.

Spending is even more decentralised than revenues. The central government is in charge of national defence, armed police troops, diplomacy and external assistance and the national-level public security agency, procuratorial agency and court of justice. Sub-national governments are responsible for social-security-related spending, price subsidies, and sub-national public security and procuratorial agencies and courts of justice. Infrastructure investment is shared, with the central government being in charge of projects of national or interregional nature and sub-national governments of projects within their jurisdictions. Culture, education, science and public health are also shared according to similar principles. In general, however, assignments are not very clear and often overlap. The 2016 Guiding Opinion by the State Council aims at clarifying spending assignments between the central and sub-national levels. The details of the exact assignment of spending by item will be worked out by 2020. The Guiding Opinion designated some items, such as compulsory education as shared expenditure. In fact, the central government has already been supporting sub-national governments with financing the costs of several spending items that are assigned to the sub-national level such as compulsory education and poverty reduction.

Sharing of revenues and spending below the province level is determined at the discretion of the province.

Horizontal disparities in revenues are now better taken care of

There are significant spending disparities across regions. These disparities are largely due to variations in revenues arising from differences in economic activity and incomes. The interaction between the structure of incomes and the tax system results in tax yields being even more unequally distributed geographically than income. The national government has put in place various mechanisms, notably a formal system of transfers, to moderate the effects on spending of the differences in tax revenue. As a result, spending disparities are smaller than income disparities (Table 1.2). For comparison, India's between-state disparities were 1.4 and 1.2 in revenues and spending, respectively in 2014.

Within-province disparities are much higher in the two dimensions of income and revenue per capita, compared to the between-province component. Within- and between-province disparities in expenditure per capita are roughly the same. Income disparities increased somewhat over the past decade and a half, but disparities in revenues grew much more and notwithstanding transfers, spending disparities also increased. (OECD, 2006). An interesting development, is that the contribution of the within-region component to disparities in expenditures decreased significantly by 2016 vs. 2002 (as in OECD, 2006). This may relate to more rigorous redistribution within provinces in recent years.

Table 1.2. Within-province disparities are dominant in overall disparities at the county level

Theil index, 2016

	GDP per capita	Revenue per capita	Expenditure per capita
Within-province	0.21	0.35	0.13
% Contribution to Total	70.4	71.3	49.7
Between-province	0.09	0.14	0.13
% Contribution to Total	29.6	28.7	50.3
Total	0.29	0.49	0.27

Note: Decomposition of the Theil index of GDP per capita, general government revenue and general government spending per capita at the county level into a within-province and across-province component.
Source: OECD calculations based on CEIC database and province-level yearbook data.

Disparities in general budget revenues are much smaller than in tax revenues (Table 1.3) owing to non-tax revenues, which are less related to the size of economic activity. General-purpose transfers (officially roughly 30 kinds of transfers, such as equalisation transfers, transfers to old revolutionary, minority, border and poor areas and reward to big grain producers) (Figure 1.10) significantly reduce disparities in provincial revenues. This is not surprising, given that, equalisation grants, are formula based and their objective is to top up fiscal resources of poorer regions, based on the regions' needs (which in turn are determined in an objective way to avoid disincentives to collect more revenues). The equalisation impact of earmarked transfers (officially also roughly 25-30 categories including transfers for general public services, education, science and technology, environment and social housing) is also large. The tax sharing system (which includes a handful of taxes such as VAT, and income taxes), in contrast, only slightly reduces revenue disparities owing to its design. Bonds also have little equalising impact on revenues. The same is true for the other three government accounts – the fund, the social security and the SOE operating revenue accounts – as several revenue items on those accounts are closely related to economic activities and thus wealthier provinces collect more.

Table 1.3. Fiscal transfers reduce disparities in province-level revenues

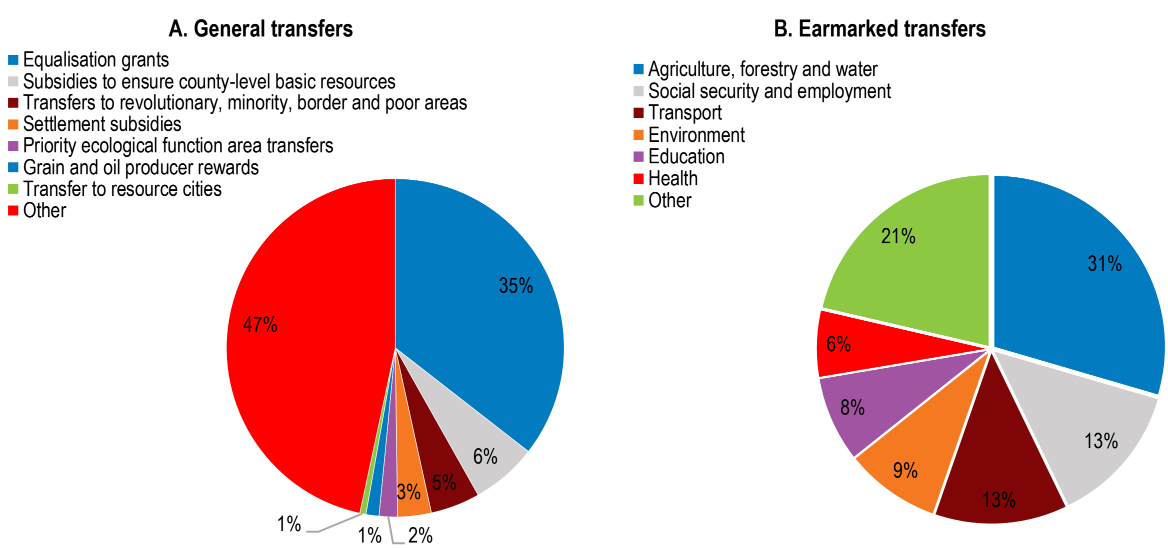
Theil index of disparities, 2016

Revenue items and their combinations	Theil index
Tax revenue	0.29
General revenue	0.22
General revenue+ general purpose transfers	0.12
General revenue+ earmarked transfers	0.14
General revenue + total transfers	0.13
General revenue+ tax sharing	0.21
General revenue + bonds	0.20
General revenue + total transfers + tax sharing + bonds	0.13
General revenue + land rights revenue	0.22
General revenue + fund revenue	0.21
General revenue+ fund revenue + total transfers+ tax sharing + bonds	0.11
General government revenue + SOE operating revenue account	0.22
General government revenue+ social security account revenue	0.21
General government revenue+ fund revenue + SOE operating revenue account+ social security account revenue	0.19
General government revenue+ fund revenue+ SOE operating revenue account + social security account revenue + total transfers+ tax sharing + bonds	0.11

Note: General revenue is revenue on the general budget account; fund revenue is on the fund account, social security on the social security account and SOE operating revenue on the SOE operating budget account. General revenue includes tax and non-tax revenue. General-purpose transfers include equalisation transfers and local governments have discretion over their use. Earmarked transfers are special-purpose transfers and have to be used for what they are designated.
Source: OECD calculations based on Finance Yearbook 2017 and province-level yearbook data.

Figure 1.10. Equalisation transfers and agriculture-related subsidies are the most important transfer items

Shares of major general and earmarked transfer items, 2016



Note: Data refer to the sub-national level.
Source: Ministry of Finance and local finance bureaux.

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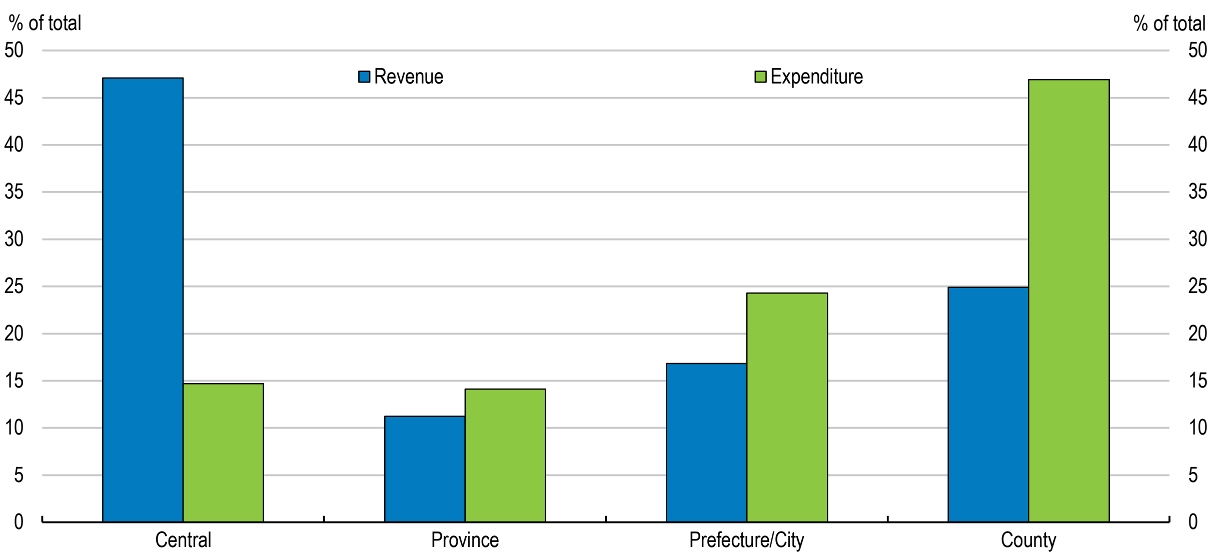
Vertical disparities between revenues and spending mandates are high

Notwithstanding the greater effectiveness of the transfer system in reducing regional inequalities in spending compared to the early 2000s, the gap between revenue and spending remains large at sub-national levels, in particular at the county level (Figure 1.11). Only 39% of county-level government funding comes from own taxes and roughly 13% from non-tax revenues. The share of non-tax revenues at the county level can be as high as the share of taxes in some provinces (e.g. Hunan). The remaining half is transfers. Earmarked transfers account for 23% and shared taxes and general transfers for 26% (Figure 1.12). Moreover, the heavy reliance on transfers and shared taxes changed little over the past decade.

Figure 1.11. The gap between own revenues and spending is the greatest at the lowest levels

Share of revenue and expenditure by government level, 2017



Note: Data refer to the general budget account and revenues do not include transfers.
Source: Ministry of Finance and local finance bureaux.

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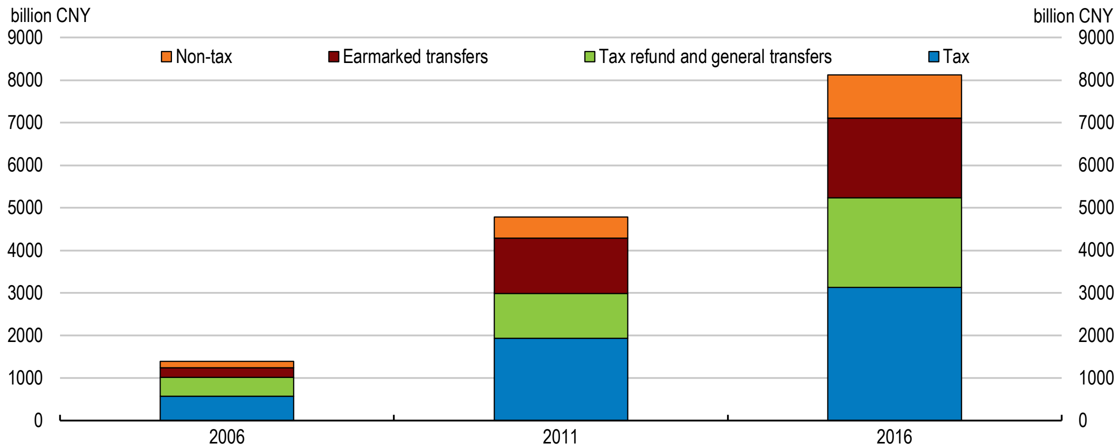
Figure 1.12. Counties rely on transfers for a large part of their spending

Sources of county-level spending, 2016



Note: Data are for the general budget account.
Source: Ministry of Finance and local finance bureaux.

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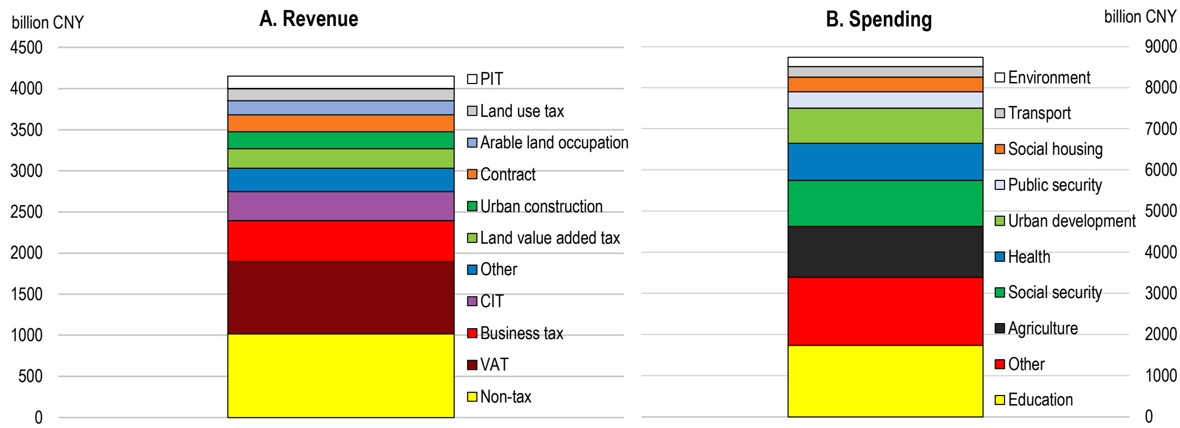
The major tax revenue at the county level is the VAT (Figure 1.13). With the phasing out of the business tax (which was a local tax based on turnover) and integrating it with VAT, the importance of VAT is increasing further and reliance on own taxes is decreasing in turn. In 2016, near the end of the VAT conversion programme, only about 12% of county-level government revenues came from the business tax. Other local taxes are even smaller and have less potential to rely on. Real-estate-related turnover taxes, including the real estate tax, the urban land use tax, the land value added tax and the arable land occupation tax altogether only made up slightly more than 16% of county-level revenues in that year. Roughly a fifth of county spending goes to education, a sixth to agriculture, forestry and water, 13% to social security and employment and roughly 10% to health and urban construction each (Figure 1.13). To make sure that people receive similar standards of public services no matter where they were born, not only sufficient funding should be allocated to education, health and social security at the aggregate level, but distribution across the country, in particular to less developed and rural areas needs to be more equal. At present, the 15-time difference between the province with the highest per-capita revenue at the county level (Jiangsu) and the lowest (Chongqing) only narrowed to 11 times on the spending side (with Tibet counties having the highest and Chongqing counties the lowest per capita spending) (Figure 1.14).

Figure 1.13. Counties rely on VAT and non-tax revenues and are in charge of education and other crucial public services

Major sources of revenues and destination of spending at the county level, 2016



Note: Data refer to the general government budget. The business tax was phased out in 2016.
Source: Ministry of Finance and local finance bureaux.

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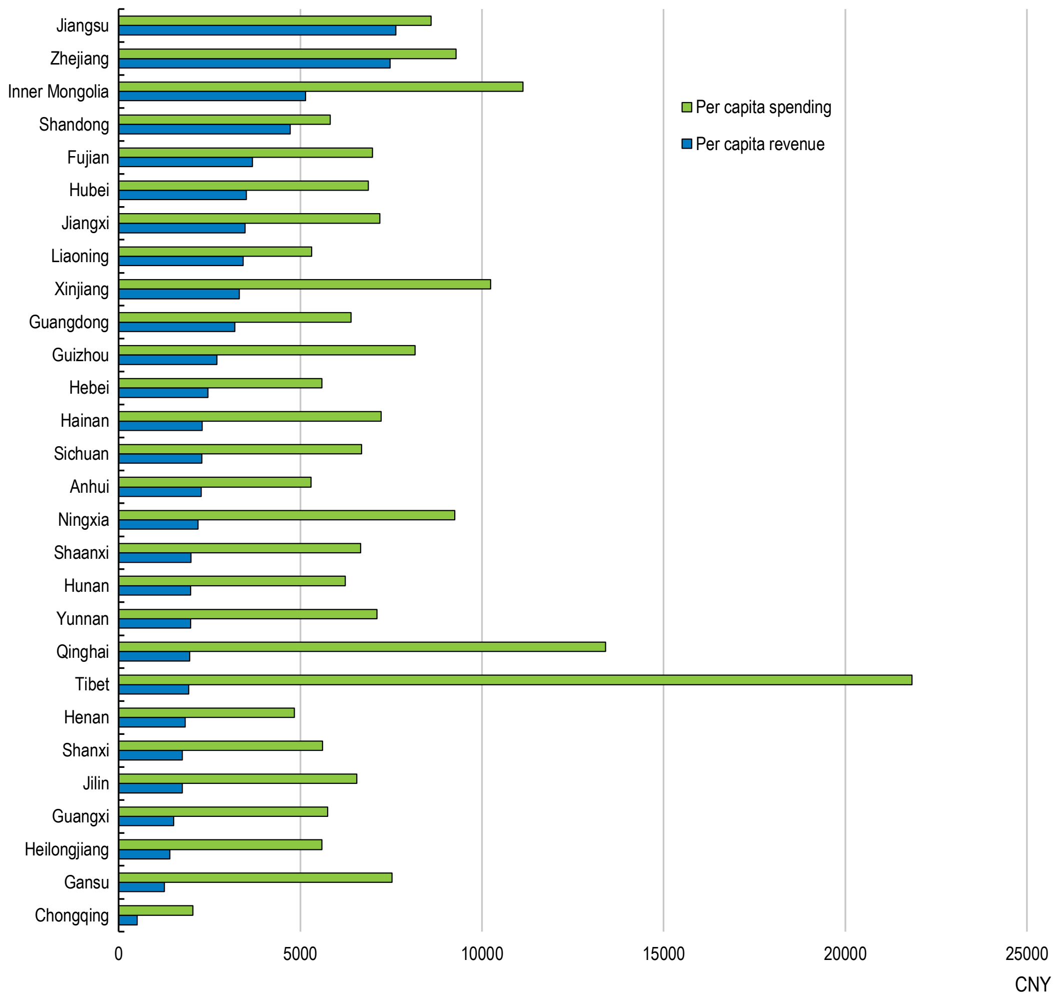
Figure 1.14. Disparities in per capita spending are even greater than in revenues

Per capita county-level revenues and spending, 2016



Note: Revenue refers to the general budget account revenue, spending includes transfers.
Source: Ministry of Finance and local finance bureaux.

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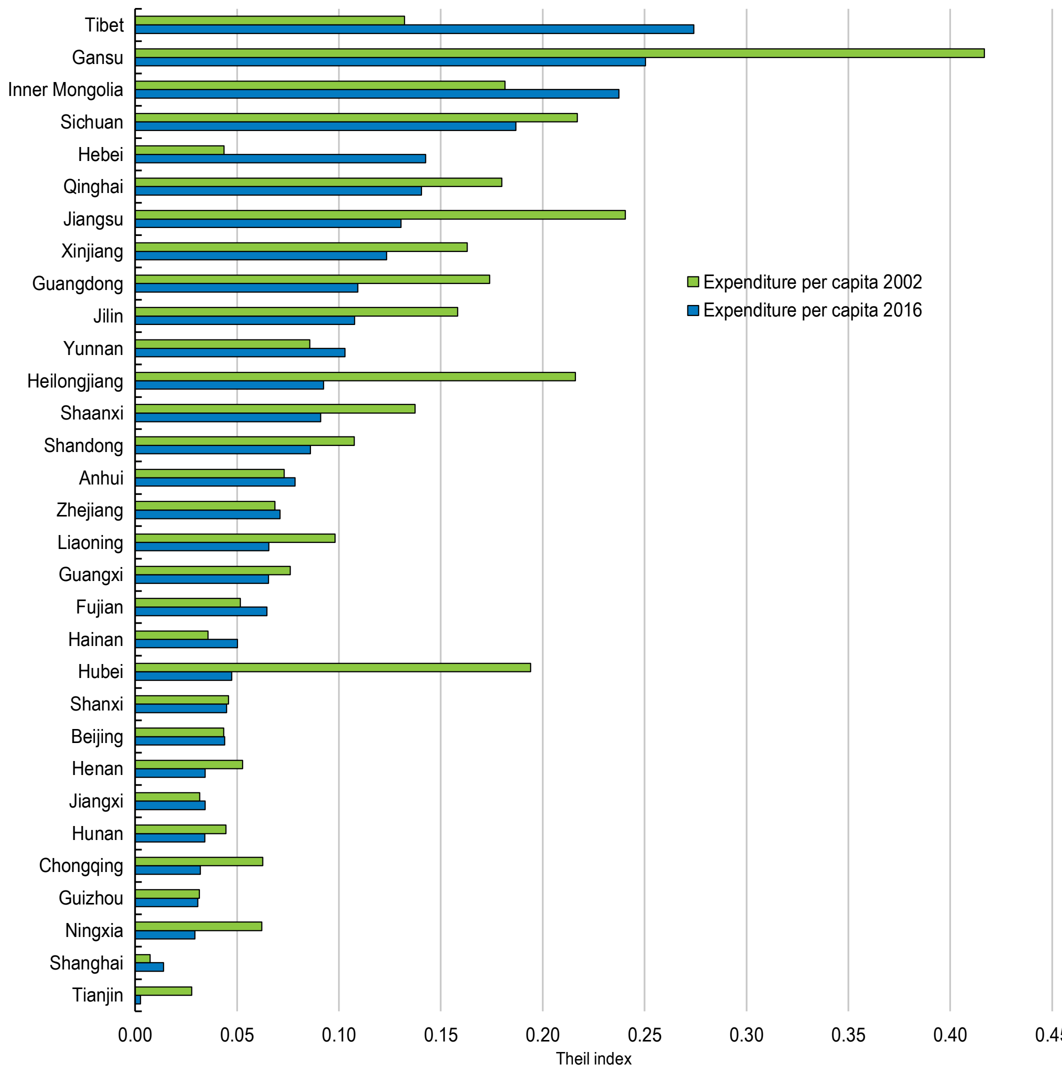
Moreover, even though the within-province contribution to disparities in spending across the country has shrunk over the past decade and a half, in some provinces such as Hebei, Inner Mongolia, and Tibet, disparities in spending per capita increased significantly (Figure 1.15). Indeed, those provinces are among the ones with the highest inequalities across counties in per capita spending. Their disparities in revenue per capita are at least double or more of spending disparities, suggesting their high spending disparities are not necessarily the result of the lack of an effective redistribution system. Gansu's disparities are still high, notwithstanding the substantial narrowing since 2002 and Sichuan's remain high.

Figure 1.15. In several Western provinces, spending disparities are high across counties

Theil index of disparities in spending per capita, 2016 and 2002



Note: Government spending refers to the general budget account.
Source: OECD calculations based on the CEIC database and province-level yearbook data.

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Centralisation of some spending assignments would improve access to better public services

Large disparities in per capita spending at the county level and counties' crucial role in providing key public services such as education, health and social security have led to uneven access and quality of those services across the country. That in turn created inequality in opportunities: being born in rural or urban areas leaves a mark on one's career and life. Furthermore, upward social mobility is constrained by the family background (Molnar et al., 2015). Spending disparities have led to disparities in outcomes. For instance, in a number of provinces there are 4-5 times more doctors and eight times more nurses per capita in urban areas than in rural. There also appears to be a sizeable gap between the qualification of many rural doctors and their urban counterparts. Public service quality differences have long raised policymakers' attention, but it was not until recently when concrete measures have been adopted aiming at equalisation of public services such as the defining of the types of services to equalise. Under the current arrangement with persisting imbalances between revenues and spending mandates at the sub-national level, the provision of similar quality of goods and services is challenging. Improving the alignment of revenues with spending mandates should therefore reduce disparities in the distribution of some major public goods such as education and healthcare resources and of the generosity of public social security systems between locations, lowering inequalities. A better alignment between revenues and expenditures will entail a combination of changes in expenditure and revenue assignments along with reform of the fiscal transfer system.

Centralisation of the financing of some spending assignments may be more effective in reducing inequalities in the provision of public goods and services than devolution of revenue-raising powers given that greater taxing powers would further aggravate already high income inequalities and necessitate higher transfers (OECD, 2006). Potential candidates for centralisation could include crucial public services such as education and health to ensure a minimum quality. Establishing a graduated system of tax sharing under which poorer provinces would receive a higher proportion of shared revenues than wealthier provinces, and making transfers to poorer provinces conditional on improvements in their tax collection could also be considered (OECD, 2006). A gradual increase in the central share of tax revenues is already being targeted, which is a welcome step. It should be matched with a greater degree of financing of key public services at the central level.

Regional policies to address disparities

China's regional policies have long been characterised by targeting and offering privileges. The three major initiatives (of the Belt and Road Initiative in Box 1.5, the Jingjinji Coordinated Development Strategy comprising Beijing, Hebei and Tianjin and the Yangtze River Belt Construction, made up of 11 provinces, Annex B) were re-emphasised in the 2017 Economic and Social Development Plan. The three strategies cover almost the entire country (with the exception of Henan, Shandong and Shanxi). In early 2018, the Great Bay Area was mentioned together with the three strategies as an additional important pillar of coordinated development. In February 2019, the development plan for the Great Bay Are - encompassing the cities of Hong Kong, Macau, Guangzhou and Shenzhen as well as seven smaller cities around them – was launched. The plan focuses on new and strategic industry development and aims at greater integration of some basic public services, for instance by mutual recognition of school credits.

Box 1.5. China's Belt and Road Initiative

China's Belt and Road Initiative emerged as a regional integration project aiming at improving connectivity and boosting trade and investment along the ancient Sild Road connecting Europe, Asia and Africa on land and sea. Since its launching in 2013 by President Xi, the scope of the strategy has expanded both geographically and thematically, even though no official map or sectoral delineation have been published. The global scope of the initiative has expanded to include countries in Central and South America. The initiative originally was envisaged as an infrastructure connectivity project, but now it includes disaster prevention, environmental degradation and innovation.

Major recipients of Belt and Road projects are Central, Southeast and South Asian countries. The initiative could contribute to partly bridge the infrastructure gap in those regions. Improving connectivity could foster both competition and productivity in those regions, contributing to world growth. Nevertheless, some projects in those countries are highly polluting, including coal-fired power plants and steel projects, which also intensely use coal. Other concerns over the initiative include a lack of transparency, increased debt, high potential for corruption and a lack of adherence to best practices in infrastructure development, financing, stakeholder management and governance. On the fifth anniversary of the initiative, President Xi acknowledged the need for better vetting of Belt and Road projects and companies, greater private sector participation and better risk management. At that time, he called for greater leadership by the communist party in the initiative.

Adhering to worldwide best practices in particular in terms of environmental and labour standards (in contrast to just following host-country standards, which are very often lower) in investment in countries benefiting from the Belt and Road Initiative, whose share is rapidly increasing in Chinese ODI, would help create an image of a responsible investor and make investments more sustainable. China should adhere to the OECD Declaration on International Investment and Multinational Enterprises and Chinese companies operating overseas should follow the OECD Guidelines on Multinational Enterprises in their business conduct. The OECD has further instruments that could help shaping Chinese investors' overseas activities such as the OECD Due Diligence Guidance for Responsible Business Conduct, for Meaningful Stakeholder Engagement in the Extractive Sector and for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, the OECD Anti-Bribery Convention and OECD instruments on export credits. Furthermore, as a G20 member and sovereign creditor, China should remain committed to the implementation and adherence to the G20 Operational Guidelines for Sustainable Financing. Infrastructure projects under the aegis of the Belt and Road Initiative should be subject to thorough cost-benefit analysis as well as that of the repaying ability and debt sustainability of the recipient country.

The initiative is also expected to accelerate the catching up of Chinese inland regions that tend to lag behind the more developed coastal areas, trickling down the benefits of international opening to the local level.

Infrastructure investment is a major component in the three initiatives as well as in the four region-specific plans. Indeed, infrastructure development has played an important role of connecting isolated regions to the economic artery of the country. The proliferation of bullet trains has made doing business more efficient. Air connections are also reaching remote areas. Such "universal" service, however, can be costly. From the 228 airports, 80%

are small scale, 70% of which are making losses. Infrastructure investment with the aim to help laggard regions to catch up may yield a short term growth boost through increased construction activity, but is likely to lead to long-term boost in growth and wellbeing if it is subject to a cost-benefit analysis (OECD, 2014b) and if externalities are accounted for. The infrastructure investment procedure in China is less transparent and involves less public scrutiny compared to OECD countries, which may lead to low returns on investment and low long-term growth benefits (Ansar et al., 2016, Zao et al., 2015). To benefit from such programmes, public review as well as thorough cost-benefit analysis of projects is needed. It is also important to establish a causal link between the programmes and their economic impact. A third-party evaluator has already been assigned to assess the impact of the programmes, though no results have been published yet.

The three major strategies aim at tighter integration

Coordinated development is one of the five keywords in the current Five Year Plan (2016-20). Accordingly, the two initiatives of Jingjinji and Yangtze River delta aim to improve and enhance economic integration of several province-level regions. They put emphasis on integrated regional planning. Improving coordination across municipalities is an important element of regional development policy in OECD countries, which can enhance productivity and reduce disparities (OECD, 2018). The Guiding Opinion on the Development of Enclaves (Document No. Fagai Diqu 2017/922) explicitly encourages Shanghai, Jiangsu and Zhejiang to invest in the up- and midstream areas of the Yangtze River and with local governments there, jointly establish enclaves with the purpose to explore new markets and new sources of development. The idea of enclaves is to transplant best practices in the areas of economic management and policy implementation as well as transfer technologies to less developed regions with the aim to share the benefits of such collaboration. Such enclaves could potentially become model zones that would attract local skilled labour and capital by their higher productivity from the surrounding regions until their management practices are replicated elsewhere in the recipient province. A major condition for that is a genuine adoption of superior management and implementation practices and the rooting out of excessive regulation and local protectionism. This is, however, difficult, as the current experience with enclaves shows, many local governments are reluctant to relinquish control over businesses in their areas and to forego rents. Provinces with superior management experiences and higher efficiency should be assigned greater role in the management of enclaves to make this idea work.

City agglomerations are a more recent initiative, aiming at tighter integration of nearby cities, which may or may not be in the same province. The Jingjinji, the Pearl River Delta and the Yangtze River Delta belong to this type of integration as they are centered around cities, but there are several more. For example, the Guanzhong Plain Urban Agglomeration Development Plan includes several cities from the three provinces of Shanxi Shaanxi and Gansu with Xian as the major city. As part of this agglomeration initiative, the transportation infrastructure is planned to be upgraded, a trade and logistics zone to be established and key cities and tourist attractions will be identified. These city agglomerations can potentially integrate the rural areas in-between, which appears as the missing link in the urbanisation and rural revitalisation move. The integration of the rural regions surrounding cities can be promoted by better connecting them with the arteria of urban public transportation infrastructure through building more suburban and regional trains, which include stops in towns along the way. This will enable more commuting to cities from neighbouring areas, thus improving town dwellers' welfare and reducing income disparities. OECD experience shows that integrating rural areas with nearby cities allows those areas to benefit also from the agglomeration effects of cities. Furthermore, creating mega-regions, which include cities and towns and rural areas in-between through better connectivity, can create agglomeration benefits with limited congestion and densification costs (OECD, 2018). Endogenous development in rural areas applying the OECD's rural development framework 3.0 could potentially be a key focus of the rural revitalisation strategy. This framework, instead of creating dependency relationships, stresses enhancing competitive advantages.

The four mega-regions are targeted with different policies

Starting in 1999, China has been operating programmes designed to push forward the development of the regions lagging behind the coastal area (Annex C). The first programme targeted the Western region. In 2003 the Northeastern Revitalisation Programme was announced and then in 2004 a third one, the Centre take-off.

Policy measures taken as part of the development programmes are diverse and relate to most major potential development levers including investment in infrastructure (transportation, energy, telecommunication), education and attracting foreign investment. For example, as part of the Western Development Programme, a strategic multi-year plan was drawn up to reform the regional higher education system. The programme's strategy has evolved over time. While the first generation of the Western Development Programme focused on infrastructure and the environment, the second generation promoted industries which best suit local characteristics and the third and current strategy focuses on opening up, innovation and green growth.

This approach of large scale regional policies holds potential for helping lagging regions to catch-up if the policy measures are able to address regional specific issues in a more efficient way than "spatially blind" measures (OECD, 2016). However, although such programmes have been in effect for almost two decades, and even though the Western and Central regions have managed to close some of the gap to the Eastern region (Figure 1.9), the exact size of the impact of the programmes is not clear.

Various special zones compete for privileges

In addition to the strategies and regions, there is an ever-evolving mix of special zones enjoying various privileges. These zones tend to get denser toward the southeast of the country. They overlap largely, which makes it difficult to evaluate the impact of each individual privilege. Privileges range from simplified administrative procedures for doing business and cheap land to tax and tariff exemptions (Box 1.6). The designation of special areas not only at the national but also at the province or even the city level further complicates the picture. The recent decision to sort out which areas should enjoy which benefits and cancel unjustified privileges and duplications is a necessary step in the direction of raising efficiency of the use of resources and effectiveness of specific measures. The various zones, in particular the first-generation special economic zones (SEZs) and among them especially Shenzhen, have played a crucial role in attracting foreign investment and in experimenting with institutional reforms on a path towards a more market-based economy. The Shenzhen SEZ was also a pioneer in the transfer of land use rights, which then became possible countrywide. Furthermore, SEZs create agglomeration economies, however, there is empirical evidence that for zones created later, the benefits are smaller while the distortions in firm location behavior are larger (Wang, 2013). There is less assessment of the efficiency of subsidies and foregone tax revenue to support SEZs and other zones.

Efficiency measures of high-tech zones (HTZs) show that most sectors in HTZs have a low level of efficiency, and there is little interaction between production and research sectors within the HTZs (Bai et al., 2015). Excessive focus is given to research of breakthrough technologies, which leads to overinvestment and reduced efficiency in those sectors. A specific, indicator-based evaluation system is needed for the various zones with a special focus on the use of public funds. A race-to-the-bottom situation should be avoid by restricting the use of tax exemption by local governments to lure investors. Local competition should be encouraged more in areas such as administrative efficiency, adherence to the rule of law, infrastructure and human capital.

Box 1.6. Myriads of special zones with privileges

National New Areas started with Pudong in 1992, the newest addition to this 19-member group is Xiong'an New Area, a new target for rapid development through attracting investment, mainly through PPPs, as is the practice in this type of special areas.

Comprehensive reform pilots and special economic zones are the major laboratories to experiment with new ideas for economic reforms. The Shenzhen Special Economic Zone (SEZ) (alongside the other three of Zhuhai, Shantou and a year later Xiamen) established in 1980 became the symbol of China's opening to the outside world. This type of special zones have the privilege to experiment with various sets of reforms and implement them on a trial-and-error basis. There are altogether 12 comprehensive reform areas, some with a special focus on urban-rural integrated development (Chengdu and Chongqing), modern farming (Heilongjiang), resource industries (Shanxi), new industries (Shenyang) or international trade (Yiwu). In addition the original four SEZs and the fifth, Hainan, which joined in 1988, in 2010 the concept was revived and two new such zones were established in Horgos and Kashgar of Xinjiang. The aim in these areas is to attract private investment. SEZs offer exemption from the corporate income tax in the initial profit-making years and reduced tax rates thereafter. Re-invested earnings are exempt.

A more specialised set of special zones is free trade zones (FTZ) and financial reform areas, pioneered by the Shanghai FTZ in 2013. Tianjin, Fujian and Guangdong followed two years later as second-generation FTZs and the third generation came in 2017 with seven more zones (in Liaoning, Henan, Shaanxi, Sichuan, Chongqing, Hubei and Zhejiang). FTZs focus more on regulatory simplification and investment environment rather than subsidies. There are also sevenfinancial reform pilot areas (Lankao, Taizhou, Diangui, Qingdao, Wenzhou, Quanzhou and Pearl River Delta).

There is a large number of national-level Economic Development Zones (219) and of New and High-Tech Zones (168) all around the country. The latter are industrial parks that accommodate 40% of high-tech companies and in 2017 produced 11.5% of China's GDP. These zones are also crucial engines of China's exports: in the first five months of 2018 accounted for over 22% of its goods exports. High exports are spurred by tariff exemption on both exports and imports. 17 of these high-tech zones are also designated National Innovation Demonstration Zones. The best known is the Beijing Zhongguancun Zone, but there are such zones along the East coastline as well as in inland provinces such as Anhui, Hubei, Hunan, Shaanxi, Chongqing and Sichuan, the latter three representing the entire Western part of China.

Source: Various government documents and news agencies.

Characteristic townships seek to benefit from their uniqueness

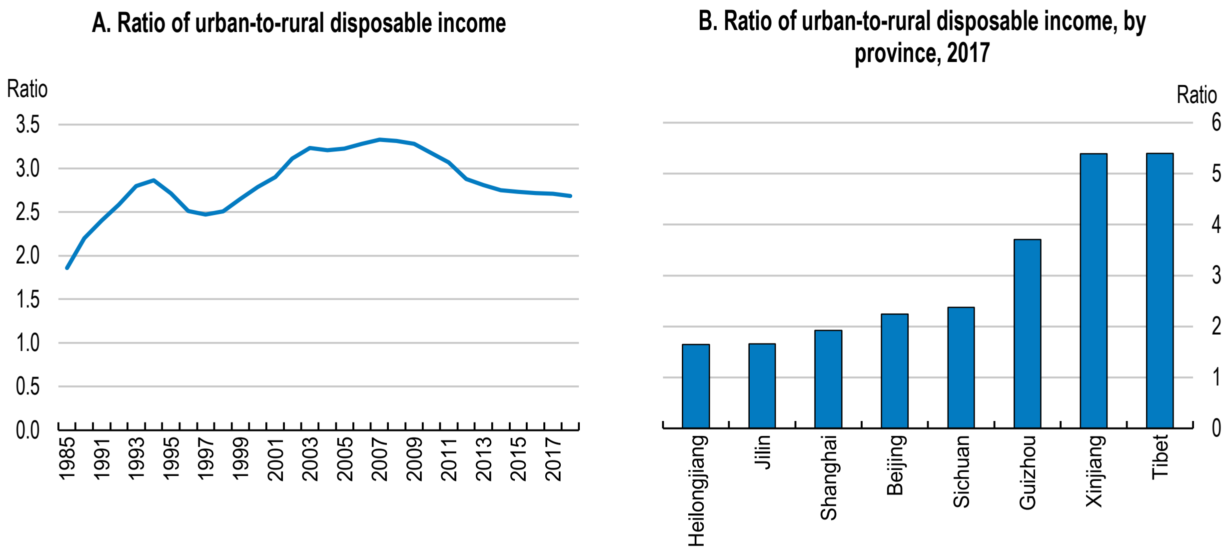
Another regional development tool implemented in China is the development of so-called characteristic towns. The Ministry of Housing and Urban and Rural Development declared in 2016 that 127 characteristic towns would be developed as a pilot, with the aim of having around 1,000 by 2020. These towns, which are spread over all Chinese provinces, are designed to have specialised capabilities, such as tourism, finance, fashion or equipment manufacturing, with the aim of creating and cultivating expertise and making use of towns' relative advantages. For example, Guyanhuaxiang Town of Zhejiang Province specialises in tourism due to its picturesque surrounding and traditional architecture and Shannan of the same province was designed to serve the financial sector of the surrounding region, taking advantage of its proximity to Shanghai, Hangzhou and Ningbo as well as to other key locations (Wu et al., 2018).

While the characteristic townships concept may have economic merit in theory, in practice only some of the towns have been successful so far. It seems that in many cases the application of the concept has been mechanical, in an attempt to imitate successful towns without adequate planning and making the necessary adjustments to local conditions. A few lessons can be learned so far. Thorough checks should be conducted with regard to the demand for the service or the product the town is planned to specialise in. Planning should also prevent over-reliance of the towns' economy on the characteristic specialisation in order to avoid strong cyclical effect and to better endure the start-up stage. A more market-based approach needs to be adopted, in which the development of the town is based more on actual demand than theoretic planning. In addition, more thorough planning is in order, to avoid the copy-paste approach (OECD, 2018) and to make sure the orientation of the town fits well with its location and the skillset of its citizens.

Closing the gap between urban and rural regions

Although there are significant differences in income levels across provinces, decomposing inequality shows that most of it (over 69%) stems from within provinces and in particular from the stark income differences between urban and rural regions. Since 2010 the income multiple of urban versus rural residents has been on a downward trend. However, in 2017 urban incomes were still 2.7 times higher than rural incomes (Figure 1.16). These differences are prevalent all across China with the urban-rural income ratio as low as 1.7 in Heilongjiang and as high as 5.4 in Tibet and Xinjiang (Figure 1.16).

Figure 1.16. Urban-rural disparities are declining, but are still significant



Source: CEIC database.

StatLink https://doi.org/10.1787/888933945849

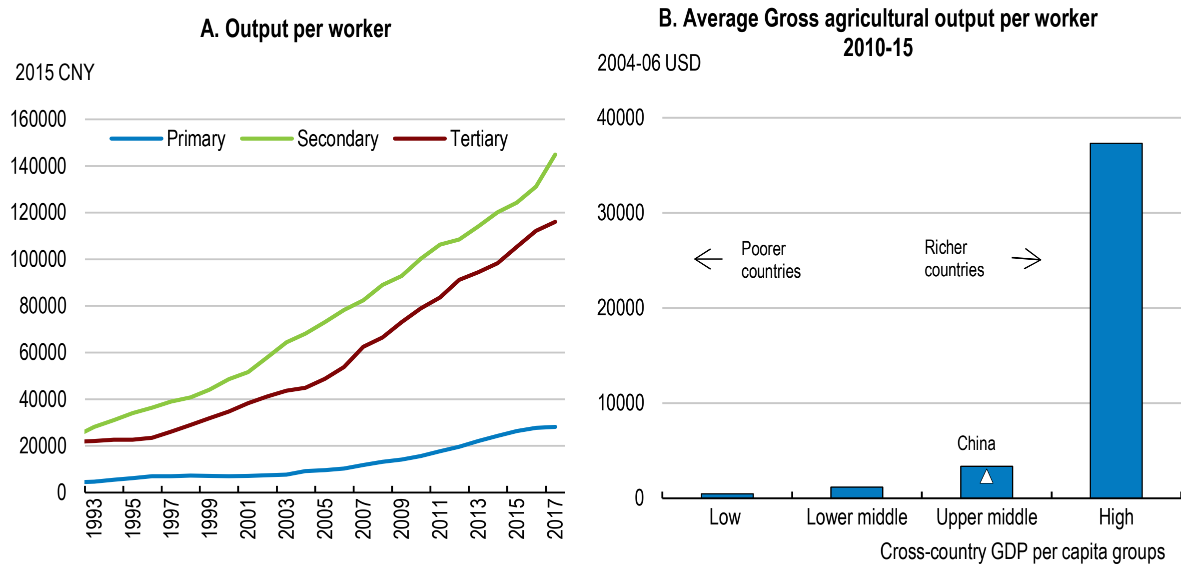
Labour productivity in rural regions is low and further modernisation is needed

The central government is currently finalising a national plan for rural revitalisation. The publication of such a plan will be timely as a complement to the 2014 national urbanisation plan since much of the current policy focus is on urban development. The rural revitalisation strategy could potentially benefit from the OECD's rural development framework 3.0 (OECD, 2016), which stresses competitive advantages in rural communities. It further emphasises the role of integrated investments (OECD, 2014b) and the tailoring of public services to the needs of different types of rural areas.

The rural revitalisation plan, which is expected to have a long term perspective and focus on rural productivity, should provide much needed back-wind for rural development. Labour productivity in the primary sector, which includes the agricultural sector, is lagging significantly behind the other sectors of the economy with the gap increasing over time (Figure 1.17).

Figure 1.17. Agriculture productivity is low and its gap with other sectors is growing

Labour productivity by sector



Source: OECD calculations based on CEIC database; and United States Department of Agriculture.

StatLink http://dx.doi.org/10.1787/888933945868

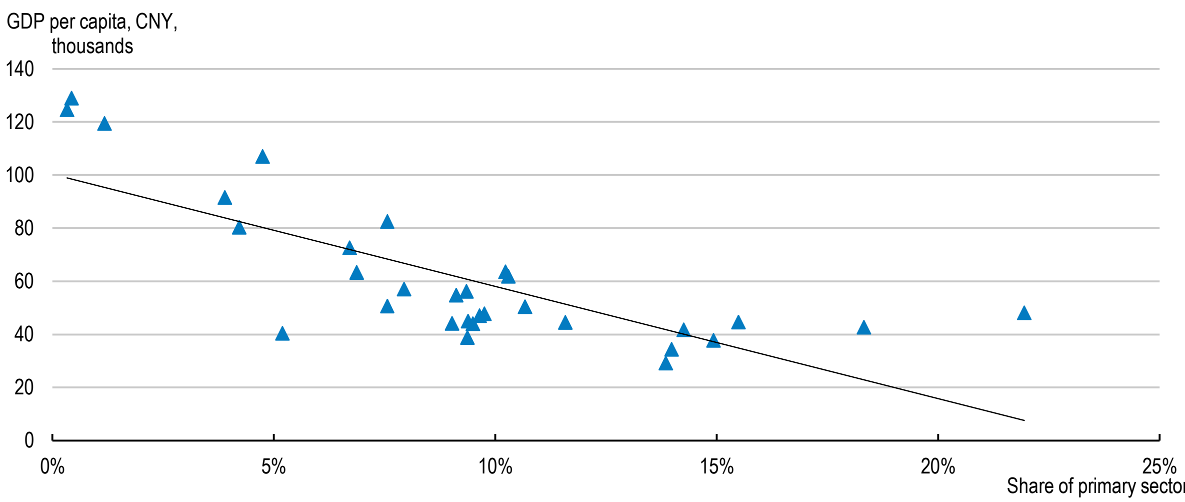
In order to close some of the urban-rural income gap, labour productivity in the agriculture sector will need to be boosted through modernisation. Agricultural mechanisation has been impressive with the number of large-scale tractors and combine harvesters increasing roughly seven-fold between 2000 and 2016. One important measure to achieve modernisation is creating economies of scale. Average farm size is small in China (OECD, 2015) and bigger farms will allow for more mechanisation and improved labour productivity. Land circulation, i.e. the renting of land use rights, is highly encouraged to speed up farm consolidation while preserving farmers' rights to their land as a kind of social security. Land circulation rose from 0.4 to 3.2 billion square kilometres between 2007 and 2016. Rural cooperatives can be particularly effective in achieving economies of scale in remote or poor areas where farmers may not have the means to come up with the land use fees upfront and outsiders may not express interest. The agriculture sector can also benefit from the easing of restrictions on land use. For example, grain production is more suitable for large plots of farmland but there are instances where small plots are designated for such crops, which may be unprofitable for the farmer and results in an inefficient use of resources. Allowing farmers to swap the designations of plots would improve productivity, while maintaining food security.

Limited access to finance is another constraint for agriculture productivity growth. Allowing land usage rights to be used as collateral, as attempted in several pilot trials across China, could increase access to finance for farmers. However, to effectively collateralise land use rights for agricultural loans, a well-functioning market for land use rights is needed. Without that, banks may remain reluctant to accept land use rights as collateral as they may end up holding them in case of foreclosure.

An agriculture modernisation process will need to be complemented by increasing urbanisation rates as fewer workers would be needed for agriculture and move from villages to towns and cities. Others could find non-agricultural work nearby as opportunities such as in services, increase. The establishment of a workplace training-based vocational education system, as recommended in the 2015 economic Survey (OECD, 2015) would better prepare young people for a change in career if needed at a later point in their life. Furthermore, more widespread life-long learning, could help ease the transition process for workers to the secondary and tertiary sectors. Continued upgrading of tourism expertise in rural regions, as targeted in the current Five Year Plan, can also help the labour market absorb surplus workers from and reduce the reliance on the agriculture sector. Development of food processing industries in rural regions is another avenue of boosting productivity and rural incomes. The experience of China's provinces show that relying on the secondary and tertiary sectors more is associated with higher per capita incomes (Figure 1.18).

Figure 1.18. Provinces with big primary sectors tend to be less wealthy

Share of the primary sector in GDP and GDP per capita in CNY thousands, 2017



Source: OECD calculations based on CEIC database.

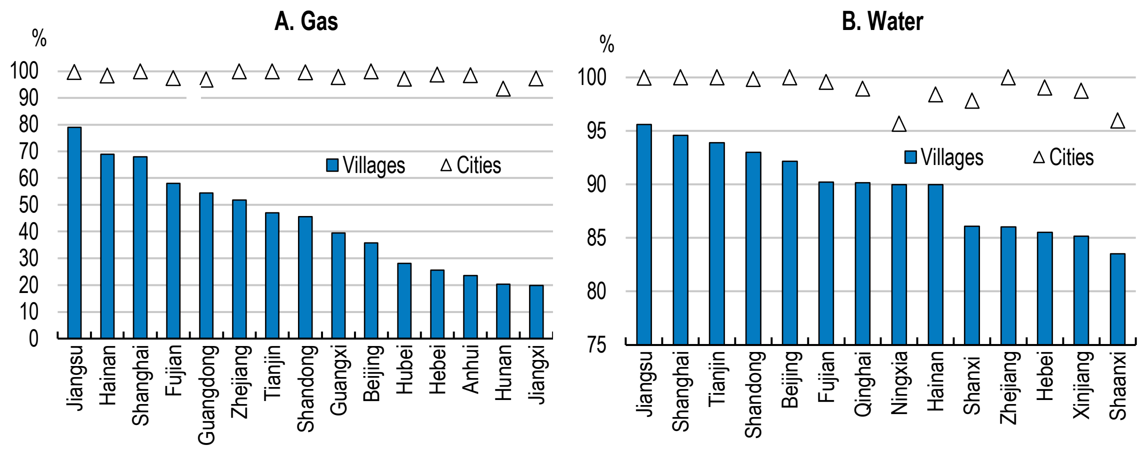
StatLink https://doi.org/10.1787/888933945887

Improving public services in rural areas will increase welfare and productivity growth

Closing the gap between urban and rural areas will also need to rely on improved public services, in particular infrastructure, health and education services. Doing this will not only increase welfare but will also support labour productivity growth. In recent years, large-scale public investment has led to a significant improvement in the rural road infrastructure. Still, however, more investment in roads is needed, particularly at the village level (Figure 1.19). Some villages are still connected by dirt roads, which do not allow for efficient transport of commercial goods. Better connection to the railroad network can encourage commuting which will increase rural incomes. Such networks should be built by the provincial, or in the case of inter-provincial networks, by the central government, as externalities are large. Road maintenance should neither be neglected, given that about a quarter of all rural roads are in need of medium-to high repairs. Further infrastructure investment is also needed in sewage and waste management as in 2016 the access rate to toilets with contained sewage facilities was as low as 40% in Tibet and lower than 70% in nine other provinces. Public investment choices should be linked to a broader development strategy, accounting for competitive advantages, equity and environmental sustainability (OECD, 2014b).

Figure 1.19. Infrastructure in villages lags well behind cities

Access rate to piped gas and water, 2017



Source: China Urban Construction Statistical Yearbook, 2017 and China Urban-Rural Construction Statistical Yearbook, 2017.

StatLink https://doi.org/10.1787/888933945906

Education in rural regions has improved significantly in recent years as coverage rates and infrastructure quality have reached comparable levels to urban regions for most age groups. Rural education quality is also improving. For example, education infrastructure standards for rural and urban regions were unified. In addition, subsidies, higher wages and various benefits have been provided to teachers in rural regions and work in rural regions has been made compulsory for teachers' promotion. A joint effort by the Ministry of Education and the Ministry of Finance aims to recruit 10 000 retired teachers below the age of 65 by 2020 to work in rural regions. However, more work is needed as rural regions still lag with respect to teacher quality. Also, further emphasis should be put on early childhood education, an important developmental age (OECD, 2017), where coverage rates remain low and public expenditure per student is around 45% lower compared to urban regions.[1]

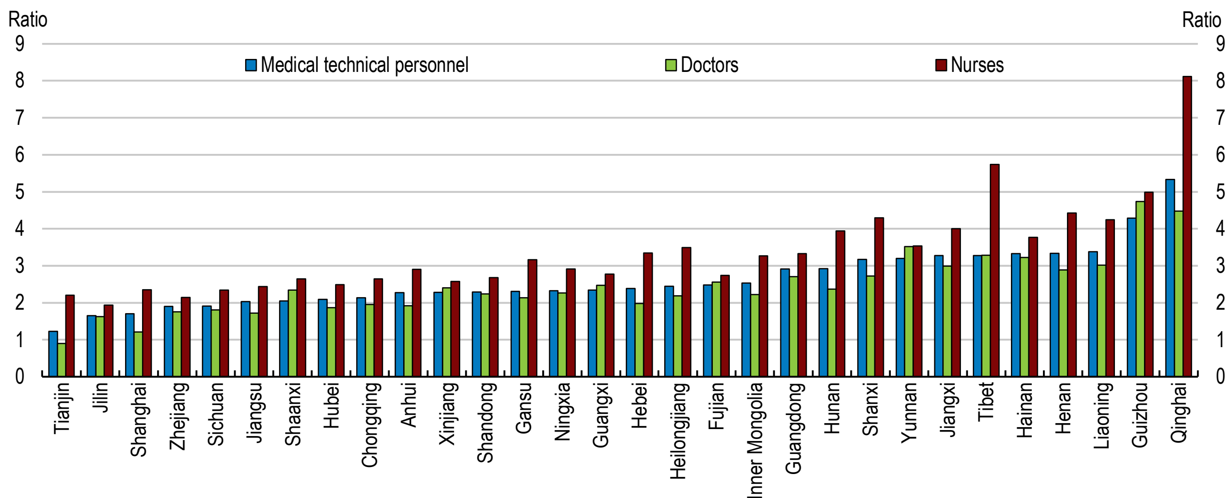
Health services in rural areas also lag behind, in particular with regard to the quality and availability of medical personnel (Figure 1.20), who in many cases, are under-qualified and lack formal medical credentials. The number of qualified practitioners is on the rise, but the challenge might be to create the right incentives to bring enough qualified personnel to rural regions. Linking work in rural regions to future promotions, as used in certain regions, could be an effective incentive. A further effective tool is staff exchanges in which urban medical staff swaps places with their rural counterparts for a day every week or two. This helps both the rural community, which enjoys top-end medical service, and the rural staff

[1] The comparison of urban to rural expenditure per early-age student is based on Educational Finance Statistical Yearbook data on total and rural expenditure per student. For this it is assumed that the share of rural children in the 0-14 age group is the same as their share in the 3-6 age group.

member who can improve his/her skills and know-how. However, as currently done, these daily staff exchanges are only relevant for the surrounding area of cities where daily commuting is possible. If done on a weekly basis (e.g. a week every 2 months), more remote areas, where the medical standard might be even lower, could benefit as well.

Figure 1.20. Rural medical staff is in shortage

Ratio of medical staff per capita in urban to rural areas, 2017



Note: Data include medical establishments of all levels and grades.
Source: China Statistical Yearbook 2018.

StatLink https://doi.org/10.1787/888933945925

Realising regional potentials - Recommendations

Create a single product market by abolishing local protectionist measures

- Strengthen the rule of law and restrict the power of administrative departments to prevent the creation of administrative monopolies.
- Provide clear and detailed implementation rules to limit the discretionary power of implementing departments. Specify deadlines for administrative bodies to perform their duties and impose penalties for delay.
- Define a mechanism through which administrative monopolies could be broken with potential sanctions for administrative bodies not complying. Strengthen the independence of anti-monopoly enforcement, make it more rule based and enhance its transparency.
- Remove the heavy burden for the plaintiff to prove abuse of power by administrative departments.
- Strengthen whistle-blower protection to uncover and rectify more cases of protectionist behaviour.
- Subject tender documents to the review of competition authorities to avoid any potential competition-hindering clause.
- Ensure technology-neutrality of environmental and other services to promote innovation and competitive markets.
- **Make public procurement more transparent and open it to all players**. Subject all purchases above the defined threshold to the government procurement procedure and raise penalties for non-compliers to deterring levels. Purchases below the threshold should also be done in a transparent way.

Create a single labour market by improving public service provision

- **Distribute more evenly high-quality education and health resources to reduce incentives to move to mega-cities.**
- Expand the coverage of early childhood education institutions and enrolment in rural areas.
- Increase the number of qualified teaching and medical staff in rural areas by more effectively rotating good quality staff. For instance, the required period spent in rural areas could increase to a week or a month at a time instead of a day to reach more remote regions.
- Create suburban rail networks to allow for a better integration of rural regions nearby cities. Increase and improve rural roads to integrate such areas into commercial networks and enable commuting for work to cities.
- **Gradually ease restriction on access to public services for non-*hukou* holders and delink it from the *hukou*.**
- Unify the pension system at the national level to ensure portability of pensions and improve financial sustainability of the system.

Enhance regional equity and efficiency

- **Centralise the financing of some key spending items, such as wage bills in education and health.**
- Further reduce horizontal disparities in spending, by for instance, progressive tax sharing schemes.
- **Conduct thorough cost-benefit analysis of large-scale infrastructure projects and enhance transparency of public investment.**
- Make the characteristic town and other initiatives more market based and avoid excessive replication of successful towns.

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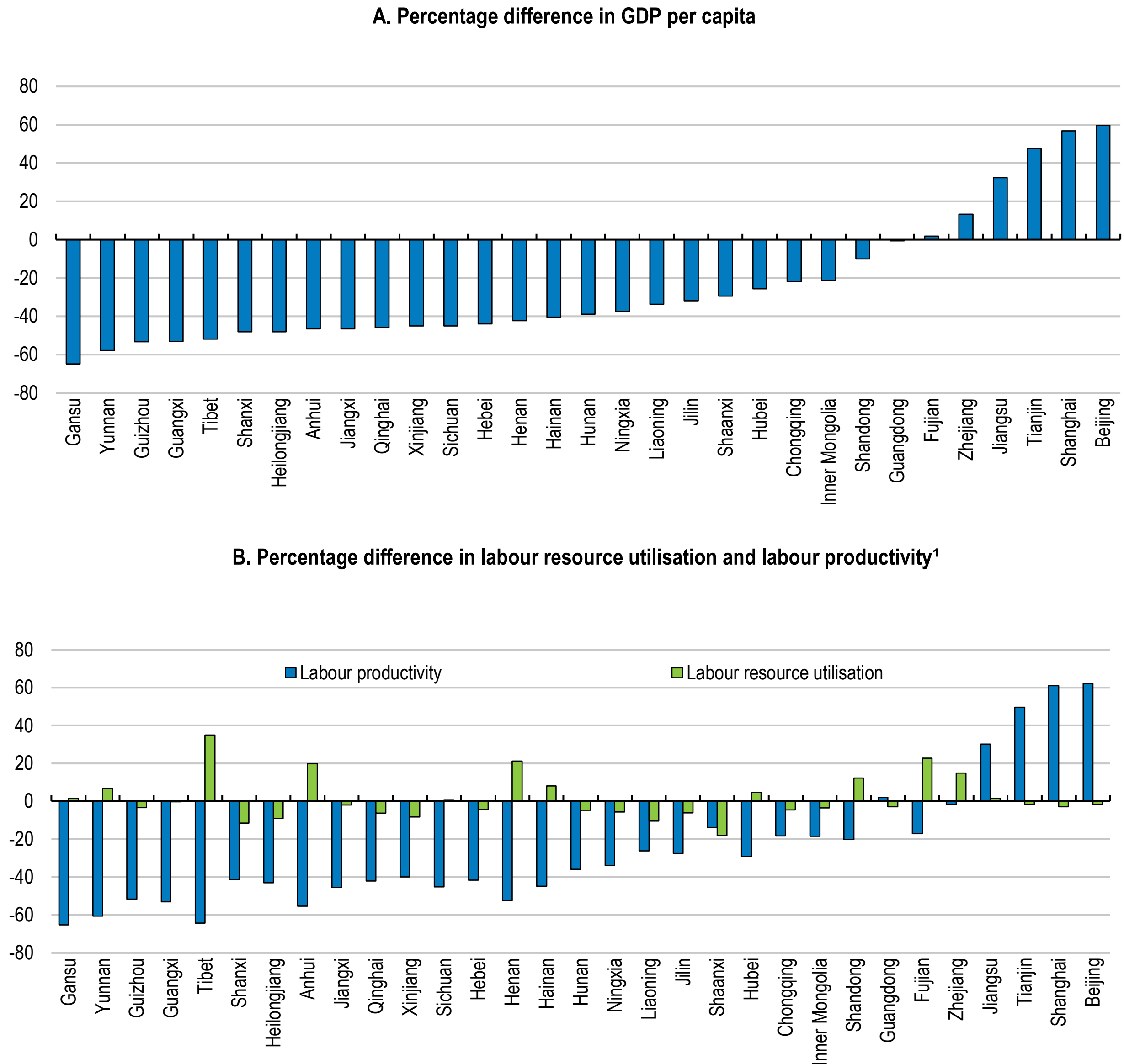
Annex A. Gauging disparities across regions in multiple dimensions

China is a collection of regions whose income per capita ranges from lower-middle to high. Western provinces such as Gansu, Yunnan or Guizhou would belong to the former, while province-level municipalities in coastal areas such as Beijing, Shanghai and Tianjin to the latter (Figure A.1.21). For comparison, Gansu's per capita GDP in current USD terms in 2017 was at par with that of Angola, Yunnan's with Belize's and Guizhou's with Iran's. At the other extreme, Beijing and Shanghai's per capita incomes are close to that of Greece and Tianjin's to that of Lithuania.

Figure A.1.21. Disparities in per capita incomes across China's provinces are large

GDP per capita, labour productivity, and labour resource utilisation compared with the upper half of provinces, 2017



Note: For the calculation of GDP per capita, the long-term resident population is used. The sum of the percentage difference in labour resource utilisation and labour productivity do not add up exactly to the GDP per capita difference since the decomposition is multiplicative. Labour productivity is measured as GDP per total employment. Labour resource utilisation is measured as total employment per capita.
Source: OECD calculations based on CEIC database.

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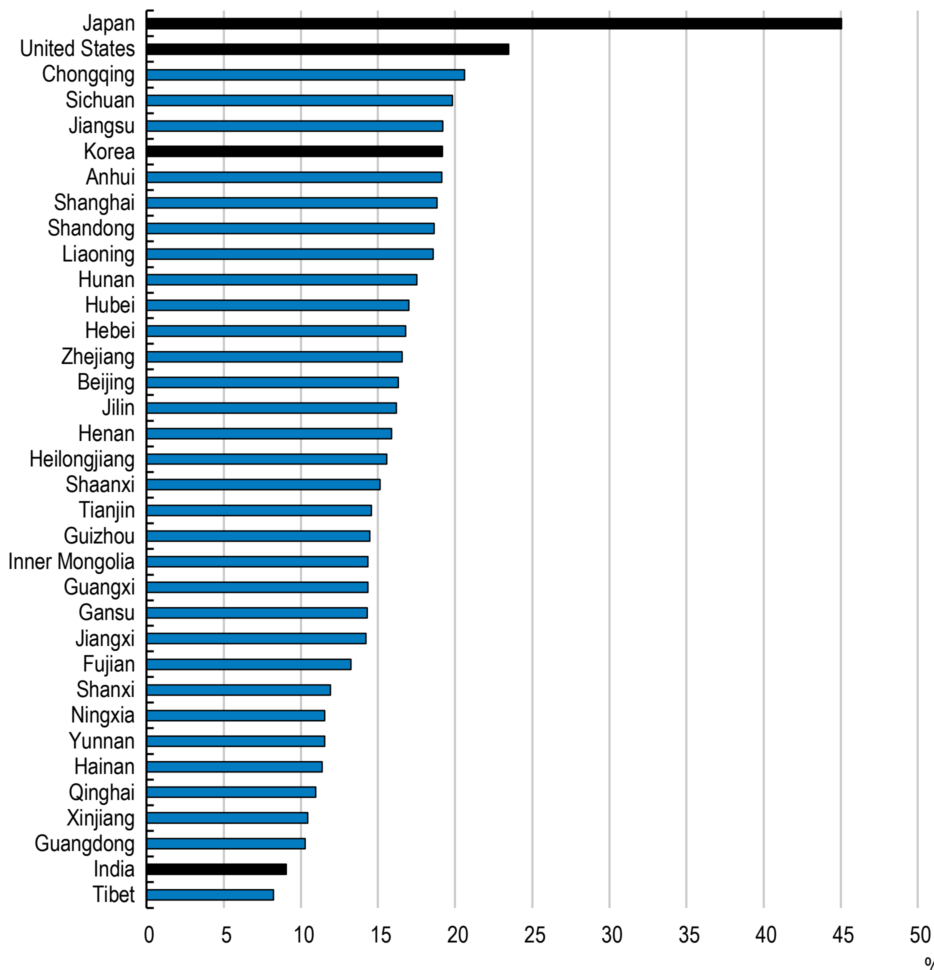
The income gaps with more advanced provinces (the upper half of the provinces) reflect lower output per worker (Figure A. 1.21). Participation rates are high in general, as China's is also high compared to OECD countries'. In Yunnan, Tibet, Guangxi, Anhui and Henan, large income gaps are coupled with higher-than-average participation rates, implying even weaker labour productivity. Different participation rates stem from not only different labour force participation and unemployment rates across provinces, but, even more importantly, significantly differing demographics. Indeed, the population structure varies widely across the country: in some provinces such as Tibet or Guangdong the population is as young as India's, while it is even older than Korea's in others such as Chongqing, Sichuan and Jiangsu (Figure A.1.22). The large divergences are related on the one hand to different natural population growth rates as in rural and minority areas the one-child policy has long been abandoned and also to different expected life times and on the other hand to migration to more prosperous areas.

Figure A.1.22. Old-age dependency varies greatly across provinces

The ratio of population above 65 to 15-64, 2017



Source: CEIC and World Bank World Development Indicators database.

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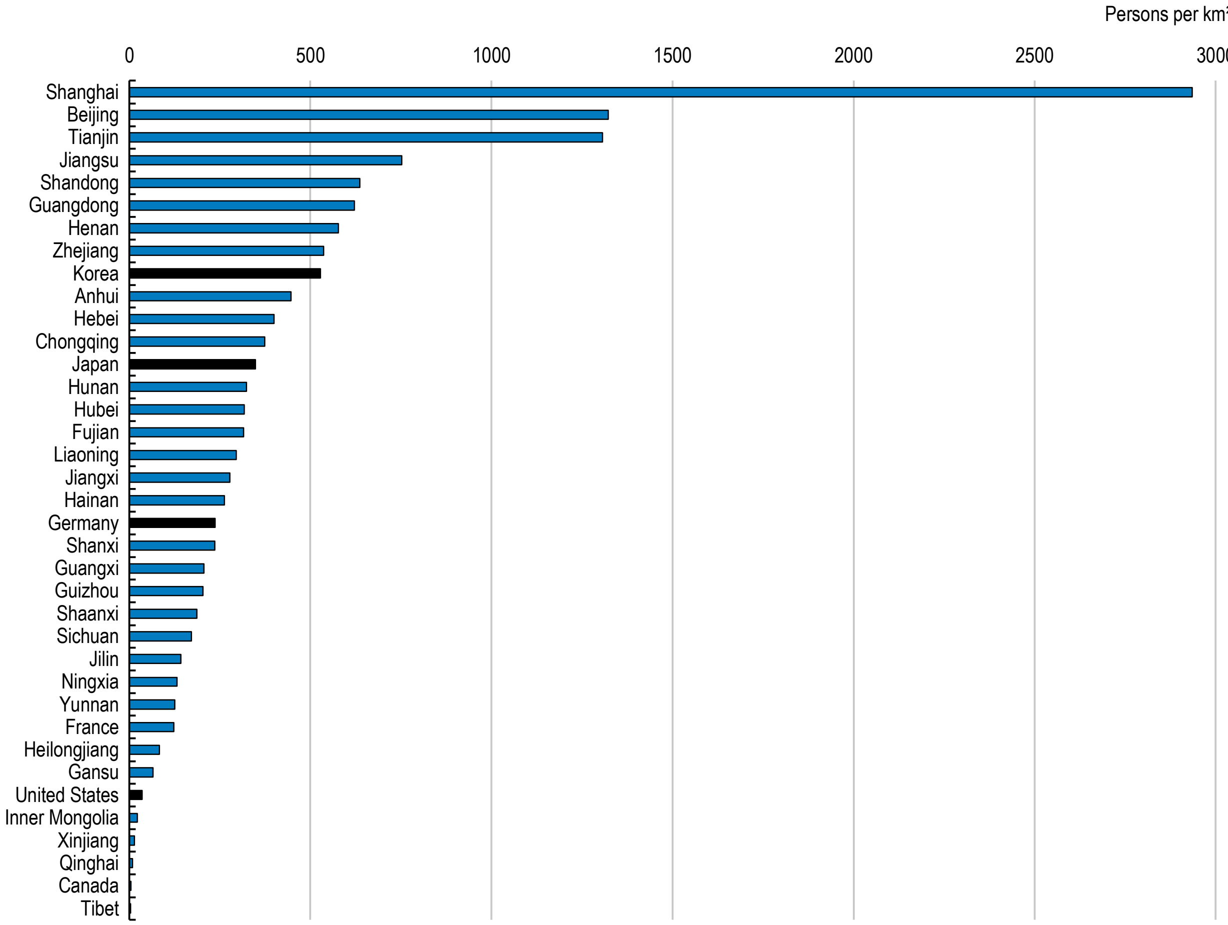
Natural endowments also vary widely across provinces: some are prone to floods, others to droughts. In general, the North and the West are dry and the South and the East are humid. Largely reflecting geographical endowments, population density also varies: in a quarter of the provinces it is even higher than in Korea, which is the most densely populated OECD country and in some provinces it is even lower than in the United States (Figure A.1.23). Manufacturing industries, in particular the labour-intensive ones settled in densely populated areas, the resource-intensive ones in resource-rich areas and agriculture-related industries where there is ample supply of fertile land. Partly owing to natural endowments, the coastal provinces participate more in international trade and are better integrated in global value chains, in particular the three regions of Jingjinji (Beijing-Tianjin-Hebei), and the Yangtze River and the Pearl River deltas. While the Yangtze River Delta region relies more on domestic value-added (in particular from neighbouring provinces such as Anhui) for its exports, the Pearl River Delta is more dependent on foreign value added and has little value-chain connections with other provinces (Li et al., 2018). Indeed, even though the Pearl River Delta accommodates some of the biggest innovator firms of China, there is no concentration of high-productivity areas around those innovation centres (OECD, 2017, 2014a). In contrast, there are high-density cities in the productivity map around Shanghai and the Yangtze River Delta. This suggests spillovers, which could potentially stem from value-chain connections.

Figure A.1.23. Population density varies widely across provinces

Resident population per square kilometre, 2017



Source: OECD calculations based on CEIC and World Bank World Development Indicators database.

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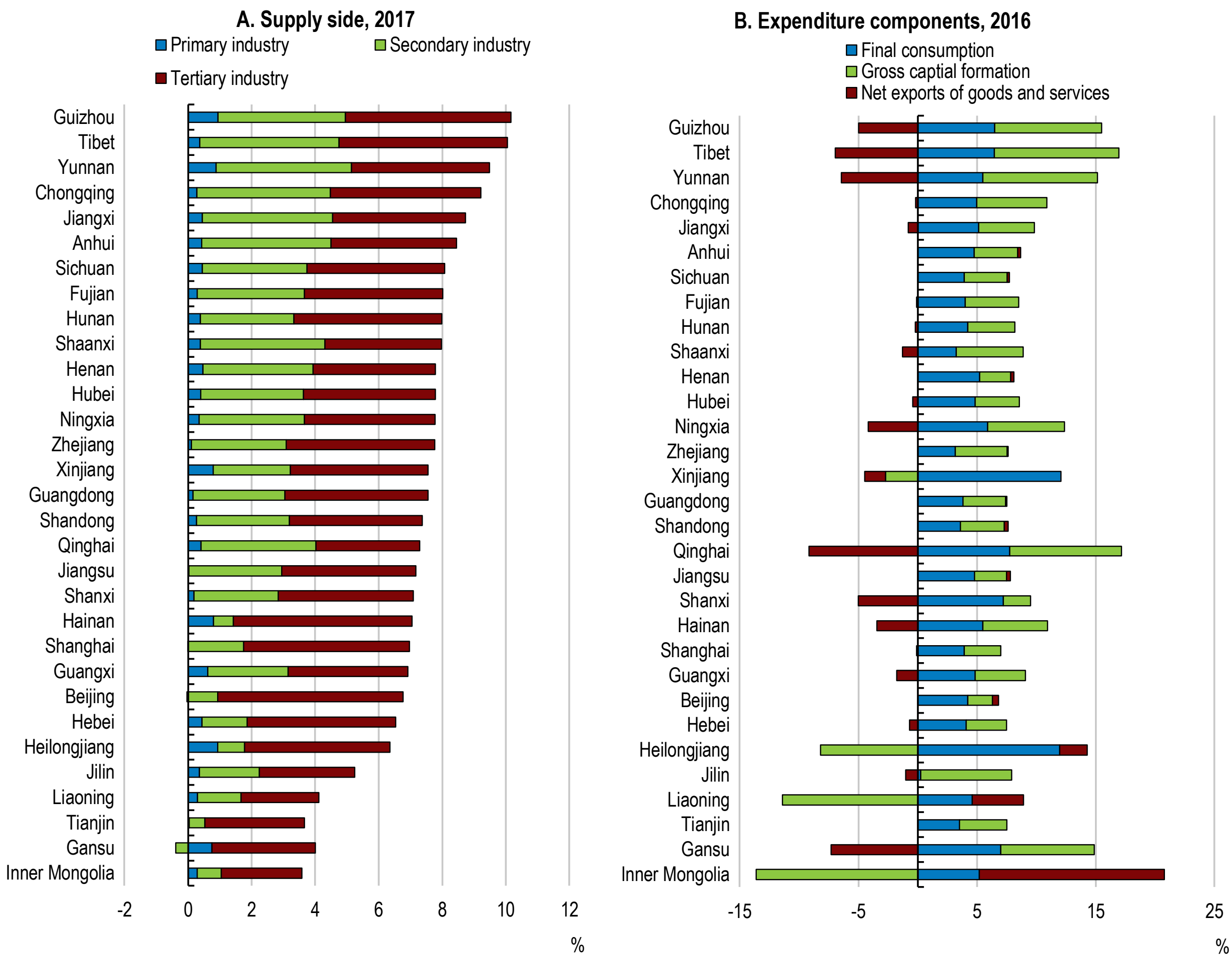
Not surprisingly, the drivers of growth also vary across provinces (Figure A.1.24). Although the tertiary sector is the major driver of growth in most provinces, as is at the national level, many -- mainly Western and Central -- provinces still rely on industry to a large extent (Figure A.1.24). On the demand side, consumption has become the major driver of growth in most provinces, though many -- again mainly in the West -- rely on investment to a greater extent (Figure A.1.24). This is related to the lower capital stocks in those provinces and shows that investment can be an important way of reducing regional disparities. In general, provinces with lower per capita income registered higher investment growth rates over the past years. Highly-investment-dependent provinces, however, experienced a sharper growth slowdown, in general (Li et al., 2018). Rapid investment growth was to a large extent driven by real estate investment in provinces at the two ends of the regional income distribution: in Shanghai, Guangdong and Zhejiang at one and in Tibet, Guizhou and Hainan at the other end. Decline in manufacturing investment was a main reason for negative fixed asset investment growth in North-eastern industrial rustbelt provinces of Heilongjiang and Liaoning and in coal-rich Shanxi.

Figure A.1.24. The drivers of growth vary widely across provinces

Contribution of supply and demand-side components to growth



Note: For Hubei Province, the supply-side statistics were used to recalculate the expenditure components using the contribution shares.
Source: Yearbooks, provincial statistics bureaux.

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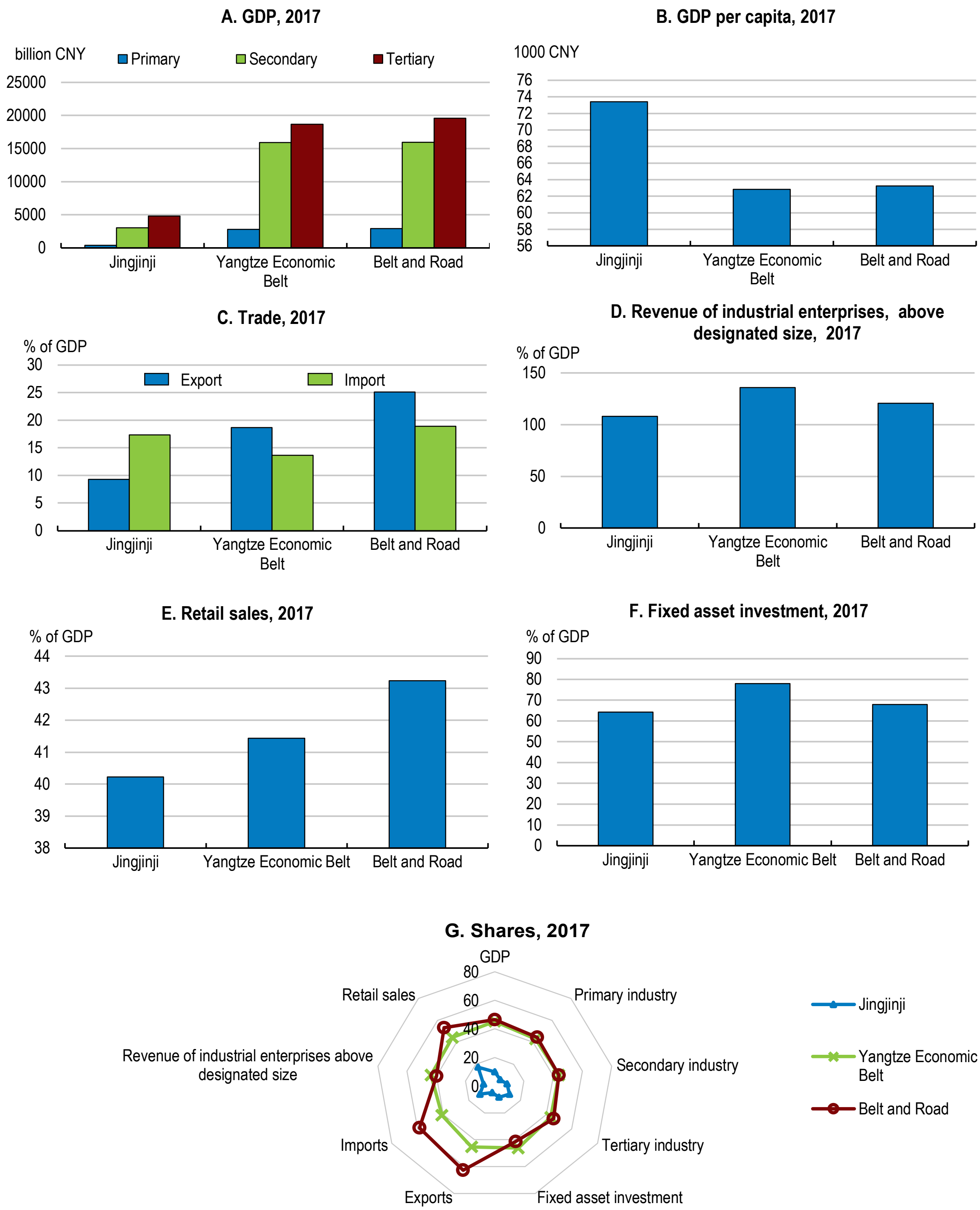
Notwithstanding the greatly varying natural endowments, regional disparities in per capita incomes have become pronounced only in the past couple of decades. At the time of China's reform and opening up, more emphasis was on growth and efficiency and regional inequalities got less attention. As disparities increased, however, the government started to deploy a wide array of tools designed to enhance regional development. Overall inequalities have decreased recently, including between regions and within provinces, though the gap widened across provinces based on nighttime light data imagery (Wu et al., 2018).

Annex B. The three initiatives

The three strategies cover a very diverse set of regions, with Jingjinji being the smallest in terms of economic weight, but the wealthiest in terms of per capita incomes (Figure B.1.25). The Yangtze Economic Belt and the Belt and Road's domestic dimension are quite similar both in terms of size of the economies and per capita incomes. These two regions are also more open in terms of their export shares to GDP than Jingjinji (Figure B.1.25). The Yangtze Belt invests slightly more and its large enterprises earn more than in the other two regions (Figure B.1.25).

Figure B.1.25. The three strategies cover a diverse set of regions



Note: Jingjinji comprises Beijing, Hebei and Tianjin, the Yangtze Economic Belt Anhui, Chongqing, Guizhou, Hubei, Hunan, Jiangsu, Jiangxi, Shanghai, Sichuan and Yunnan and the Belt and Road Chongqing, Fujian, Gansu, Guangdong, Guangxi, Hainan, Heilongjiang, Inner Mongolia, Jilin, Liaoning, Ningxia, Qinghai, Shaanxi, Shanghai, Tibet, Xinjiang, Yunnan and Zhejiang. Fixed asset investment also includes the purchase of fixed assets.
Source: OECD calculations based on the China Statistical Abstract (2018) and CEIC database.

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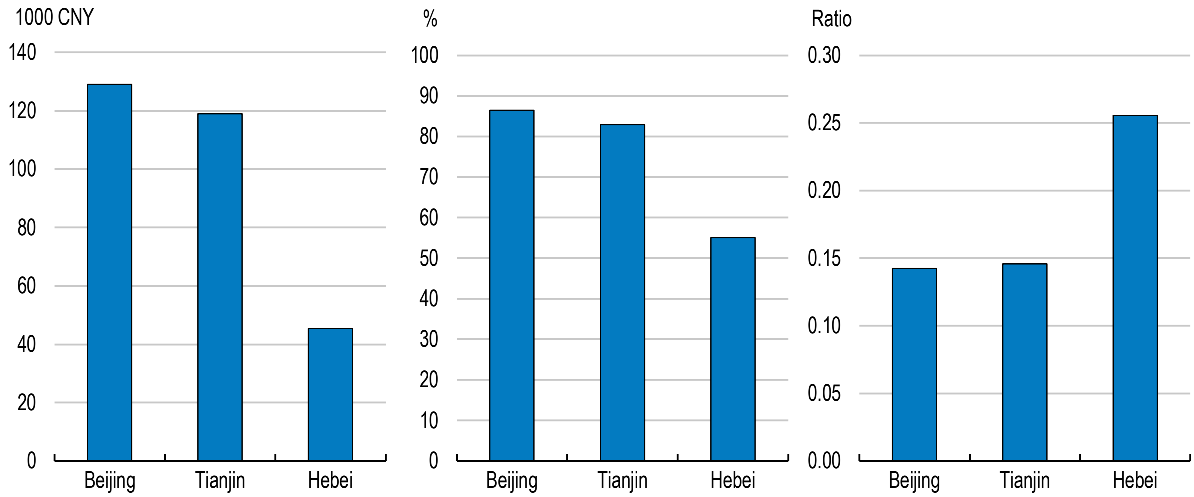
The Belt and Road Initiative is mostly known to the world as a multi-country initiative to upgrade the infrastructure network, but in fact its scope goes much beyond infrastructure investment and it has an important domestic dimension. Many of the 18 provinces that were designated as Belt-and-Road provinces, are in the Western and Northeastern part of China and lag behind more developed provinces. The Initiative has already brought prosperity to many border cities and towns in those provinces through enhanced trade and investment under its aegis. Those provinces, mainly along the western and northern borders will also be major beneficiaries of tightening integration with Belt and Road countries through harmonisation of various policy areas including disaster reduction strategies, ecological conservation, environmental protection and innovation.

In the Jingjinji region, Beijing, Tianjin and Hebei Province differ significantly (Figure B.1.26). Improved integration and coordinated planning within this region can help exploit relative advantages (e.g. high productivity levels in Beijing and low labour costs in Hebei) and deal with relative disadvantages (such as congestion and high housing prices in Beijing). The biggest single project, which has emerged so far as part of this initiative, is the new city of Xiong'an to be built in Hebei Province, 100 kilometers from Beijing. According to the plan, many major institutions will move there from Beijing, including government institutions, banks, hospitals, universities and business headquarters. Overall, this new city is expected to house around 2-3 million people. This ambitious attempt aims to lower congestion in Beijing and to create a new technology and financial hub, while also decreasing regional disparities by moving high-productivity industries and high earners to a less wealthy province. This move can have further knock-on effects as similar public service standards will be provided as in Beijing, which should further attract high-level service providers such as teachers and doctors, which could further decrease regional disparities. Xiong'an, as the other New Areas, is supposed to attract private investment through public-private partnerships. Amid the current deleveraging and financial tightening, however, private investors may first want to be sure they earn profits and therefore may take a wait-and-see approach. In a further attempt to reduce congestion in central Beijing and to shift some economic activities outside of the center, several municipal-level agencies are being moved to Tongzhou, a district of Beijing. With the move of those civil servants with high demand for quality education, preparatory schools and other child-oriented facilities, a vibrant private sector is expected to emerge there providing those services.

Figure B.1.26. Jingjinji is a diverse region

GDP per capita, rate of urbanisation and youth dependency ratios, 2017



Note: The youth dependency ratio refers to the population aged 0-14 years divided by the population aged 15-64 years.
Source: CEIC database.

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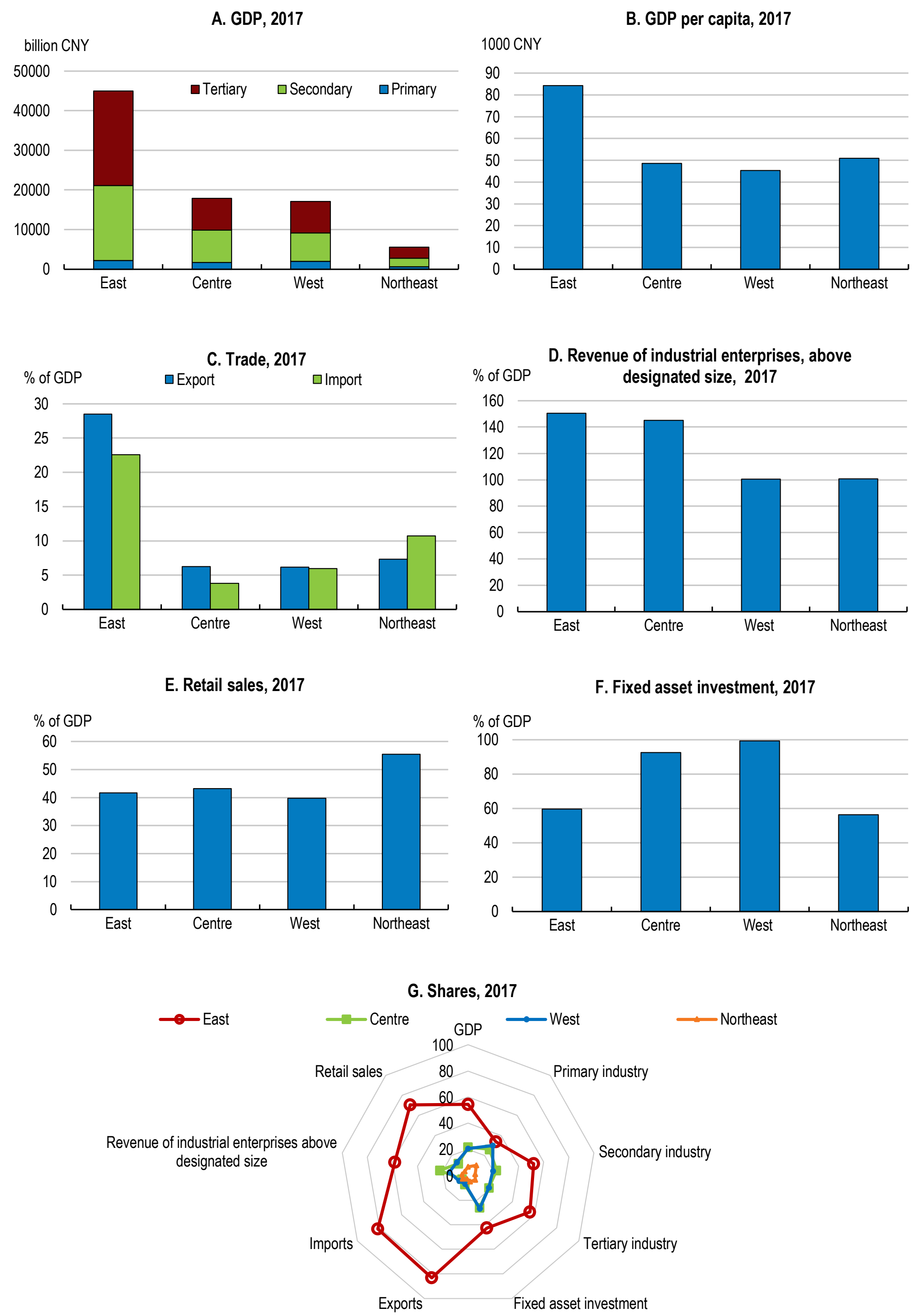
However, other than the Xiong'an project, there are indications that thus far the benefits of the increased integration approach have been limited and focused on relatively small-scale projects. Indeed, improved cross-provincial coordination is challenging since even within provinces there are many coordination difficulties between prefectures and counties. In order for these programmes to yield significant benefits, it should deal with large-scale projects such as integrated infrastructure development. The central government may need to assume a greater role to ensure coordination.

The Yangtze River Economic Belt is the third region of the three major strategies and spreads across 11 provinces including Shanghai, Jiangsu, Anhui and Zhejiang. It covers 21% of the country's territory and represents over 40% of the population and output. It includes some of the richest and some of the poorest provinces. Thus, relative advantages within the region can create significant benefits here as well. The initiative aims to enhance regional cooperation and sharing of information as well as inter-connectedness through various transportation projects. Since it only started in 2014 it is early to assess its effectiveness, but due to the size of the area and the number of provinces and cities involved, it is fair to assume that strong central government involvement will be needed to ensure effective cooperation between all parties.

Annex C. The four mega-regions

The three programmes of Western Development, Northeastern Revitalisation and Taking off by the Centre cover the vast majority of China's territory, as well as most of the population. The much greater economic weight and significantly higher per capita income in the East of the country (Figure C.1.27) -- resulting from the opening up and reforms -- prompted the central government to adopt those programmes aimed at helping catching up of the other three regions.

Figure C.1.27. The East is bigger, wealthier and more open than the other regions



Note: The Centre includes Anhui, Henan, Hubei, Hunan, Jiangxi and Shanxi; the East Beijing, Fujian, Guangdong, Hainan, Hebei, Jiangsu, Shandong, Shanghai, Tianjin and Zhejiang; the Northeast Heilongjiang, Jilin and Liaoning and the West Chongqing, Gansu, Guangxi, Guizhou, Inner Mongolia, Ningxia, Qinghai, Shaanxi, Sichuan, Tibet, Xinjiang and Yunnan. Fixed asset investment also includes the purchase of fixed assets.

Source: OECD calculations based on the China Statistical Abstract (2018) and CEIC database.

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China's growth continues to slow, but it is still high by international standards and contributes about a quarter of global growth. The growth model based on capital accumulation has led to misallocation of capital and excess capacity in a number of industries as well as falling investment efficiency, dictating a slower pace for investment. The reining in of shadow banking, an important source of financing for local infrastructure projects and for the private sector, weighs further on investment. Investment has been financed by debt, fuelled by interest subsidies and implicit guarantees for state-owned enterprises and other public entities. Slower growth implies lower enterprise profits and lower ability to service their debt, which has been accumulated primarily by state-owned enterprises and has reached unsustainable levels. Slowing growth and swiftly enacted tax cuts also imply lower fiscal resources to make growth more inclusive. In the medium term, productivity gains and more inclusive policies could sustain growth. Local protectionism increases transaction costs and hinders competition and restrictions on the hukou and the fragmented pension system limit labour mobility.

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