# EXHIBIT 21

# Industrial Policy Implementation: Empirical Evidence from China's Shipbuilding Industry *

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March 2021

### Abstract

In this paper we study the role of industrial policy in shaping the evolution of a global industry. We assess the long-term performance of different policy instruments, which include production subsidies, investment subsidies, entry subsidies, and consolidation policies. To do so, we examine a recent industrial policy in China aiming to propel the country's shipbuilding industry to the largest globally. Using firm-level data and a dynamic model of firm entry, exit, investment, and production, we find that (i) the policy boosted China's domestic investment, entry, and international market share dramatically, but delivered low returns and led to fragmentation, idleness, as well as depressed world ship prices; (ii) the effectiveness of different policy instruments is mixed: production and investment subsidies can be justified by market share considerations, while entry subsidies are wasteful; (iii) counter-cyclical policies and firm-targeting can substantially reduce distortions. Our results highlight the critical role of firm heterogeneity, business cycles and firms' cost structure in policy design.

**Keywords:** Industrial policy, China, Investment, Dynamics, Shipbuilding

# 1 Introduction

Industrial policy has been widely used in both developed and developing countries. Examples include the U.S. and Europe after World War II, Japan in the 1950s and 1960s (Johnson, 1982; Ito, 1992), South Korea and Taiwan in the 1960s and 1970s (Amsden, 1989; Lane, 2019), China, India, Brazil, and other developing countries more recently (Stiglitz and Lin, 2013). It was once considered 'outdated' in developed countries but is now back in spotlight in Europe and the U.S..[1] Designing and implementing industrial policies is a complicated task. Governments seeking to promote the growth of selected sectors have a wide range of policy tools at their disposal, including subsidies on output, provision of loans at below-market interest rates, preferential tax policies, tariff and non-tariff barriers, and so on. They must also choose the timing of policy interventions and whether to target selected firms within an industry. As Rodrik (2010) puts it, "The real question about industrial policy is not whether it should be practiced, but how."

China's shipbuilding industry provides a great illustration of the challenges associated with designing effective industrial policies. At the turn of the century, China's nascent shipbuilding industry accounted for less than 10% of world production. During the 11th (2006-2010) and 12th (2011-2015) National Five-Year Plans, shipbuilding was dubbed a pillar industry in need of special oversight and consequently received numerous policy interventions. Within a few years, China overtook Japan and South Korea to become the world's leading ship producer in terms of output. However, this impressive output growth was achieved via a massive entry wave of new firms, which exacerbated industry fragmentation and led to low capacity utilization.[2] Plummeting ship prices during the aftermath of the financial crisis threatened the survival of many firms in the industry and prompted the government to place a moratorium on the entry of new firms. In addition, policy support was shifted towards selected firms on the "White List" in an effort to promote industry consolidation.

The example of shipbuilding, which echoes patterns observed in other industries (steel, solar panels, auto, etc.), highlights the complexity in implementing industrial policies and the difficulties that are associated with empirically evaluating past experiences. Not only do we need to carefully observe and identify policies that are implemented, which are often opaque, but we also need to properly account for the role of industry dynamics, business cycles and firm heterogeneity. As a result, relative to the large theoretical literature on industrial policy and its popularity in practice,

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[1]See *The Economist* 2019: https://www.economist.com/europe/2019/02/21/how-china-has-pushed-germany-to-rethink-industrial-policy.

[2]This pattern is not unique to the shipbuilding industry. In many other industries that received government support in the 1990s and 2000s, such as steel, auto, and solar panels, sector growth can also be characterized by the proliferation of small firms and an overall fragmented industry structure (Figure 1). This is in contrast to the experience of other countries. For example, South Korea's industrial policy of promoting heavy industries in the late 1970s mainly targeted large business conglomerates or the "chaebol" (Fukagawa, 1997).

empirical analysis is much more limited (see Lane (2020) for an excellent review.)

In this paper, we use shipbuilding as a case study to address two questions of interest. First, how did China's industrial policy affect the evolution of both the domestic and global industry? Second, what is the relative performance (in terms of welfare considerations) of different policy instruments, which include production subsidies (e.g., subsidized material inputs, export credits, buyer financing), investment subsidies (e.g., low-interest long-term loans, expedited capital depreciation), entry subsidies (e.g., below-market-rate land prices), and consolidation policies (White Lists)?

A critical challenge in our analysis is the lack of information on the nature and magnitude of government subsidies. This is not specific to our analysis. As documented in a large literature (Bruce, 1990; Young, 2000; Anderson and Van Wincoop, 2004; Poncet, 2005; Kalouptsidi, 2018; Barwick et al., 2020; Bai and Liu, 2019), industrial subsidies are often purposefully covert and notoriously difficult to detect and measure. To overcome this challenge, we thus adopt the approach in the existing literature and recover the magnitude of subsidies by estimating the cost structure of the industry before and after the policies were implemented.

Specifically, we develop a structural model of the industry that incorporates dynamics and firm heterogeneity, both of which are essential for determining the long-term implications of industrial policy. In each period, firms engage in Cournot competition: they choose production output subject to convex production costs and charge a markup. Then they decide whether or not to exit and how much to invest conditional on staying. Investment increases firm capital, which in turn reduces future production costs. Potential entrants make entry decisions based on their expected lifetime profitability, as well as the cost of entry. China's industrial policy affects all of these decisions by lowering the relevant costs.

We next estimate the model using data on firm-level output, capital, and characteristics, as well as ship market prices. The main primitives of interest are production costs, investment costs, entry costs, exit scrap values, as well as the demand for ships. Estimates for industrial subsidies are obtained via changes in firm costs upon the introduction of different policies. Our empirical strategy departs from the literature on firm dynamic decisions in two ways. First, we estimate the fixed costs of production from accounting data to accommodate periods in the latter part of our sample when idling capacity and zero production plagued the industry. Second, we allow for continuous investment under unobserved cost shocks and adjustment costs, in light of heterogeneous investment across firms with similar attributes.[3] Once the key parameters are uncovered, we evaluate the long-term implications of China's industrial policy in counterfactual analysis, simulating the global shipbuilding industry over time and turning on and off different policy instruments as needed.

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[3]Ryan (2012) is another example with continuous investment and heterogeneous shocks. Unlike our setting, he formulates investment as following an S-s rule.

Our analysis delivers four sets of main findings. First, like many other policies unleashed by China's central government in the past few decades, the scale of the industrial policy in the shipbuilding industry is massive, compared to the size of the industry. Our estimates suggest that the policy support from 2006 to 2013 boosted China's domestic investment and entry by 140% and 120%, respectively, and increased its world market share by over 40%. Importantly, nearly three-quarters of this expansion occurred via business stealing from rival countries (Japan and South Korea). However, relative to its magnitude, the policy generated negligible profits to domestic producers and modest gains to worldwide consumer surplus. In the long run, the gross rate of return of the adopted policy mix, as measured by the lifetime profit gains of domestic firms divided by the magnitude of the policy, is only 18%. The policy attracted a large number of inefficient producers and exacerbated the extent of excess capacity. In addition, fixed costs contributed to the low returns, due to the volatile nature of the industry.

Second, the effectiveness of different policy instruments is mixed. Production and investment subsidies can be justified on the grounds of revenue considerations, but entry subsidies are wasteful and lead to increased industry fragmentation and idleness. This is because entry subsidies attract small and inefficient firms; in contrast, production and investment subsidies favor large and efficient firms that benefit from economies of scale. As expected, production subsidies are more effective at achieving output targets, while investment subsidies facilitate higher capital formation over the long run. In addition, distortions are convex so that the rate of return deteriorates when multiple policies interact.

Third, our analysis suggests that the efficacy of industrial policy is significantly affected by the presence of boom and bust cycles, as well as by heterogeneity in firm efficiency, both of which are notable features of the shipbuilding industry. A counter-cyclical policy would have out-performed the pro-cyclical policy that was adopted by a large margin. Indeed, their effectiveness at raising long-term industry profit differs by nearly twofold, which is primarily driven by two factors: a composition effect (more low-cost firms operate in a bust compared to a boom) and the much more costly expansion during booms (due to convex production and investment costs).

Fourth, we examine the consolidation policy adopted in the aftermath of the financial crisis, whereby the government implemented a moratorium on entry and issued a "White List" of firms that are prioritized for government support. This strategy was adopted in several industries to curb excess capacity and create national champions that can compete globally.[4] Consistent with the evidence discussed above, we find that targeting low-cost firms significantly reduces distortions. As a result, the industrial policy's return improved over time: it was low in earlier years when output expansion was primarily fueled by entry of inefficient firms, and increased considerably as the government shifted support to more efficient firms and used the White List to channel subsidies. That

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[4]See https://www.wsj.com/articles/SB10001424127887324624404578257351843112188.

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said, the government's White List was sub-optimal and favored state-owned enterprises (SOEs) at the expense of the most efficient firms.

Finally, we examine the possible rationales for adopting the policy. As firms in our model have market power, which distorts market output, strategic trade considerations may provide an incentive for the policy maker to intervene. Nonetheless, simulation results suggest that strategic trade benefits are small, as the extent of market power is limited. In addition, we find no evidence of industry-wide learning-by-doing (Marshallian externalities), another common rationale for industrial policy.

While our paper uses a partial equilibrium framework to assess the policies, we also examine spillovers to the rest of the economy. We find limited evidence that the shipbuilding industry generates significant spillovers to other domestic sectors (e.g., steel production, ship owning, or the labor market). However, the substantial increase in the global fleet ensuing from China's increase in ship production did lower freight costs and increase China's imports and exports. Our (back of the envelope) calculations indicate that the policy (which averaged $11.3bn annually between 2006 and 2013) lowered freight rates by 6% and boosted China's trade volume by 5% ($144 bn annually). That said, evaluating the welfare gains of the associated increase in trade volume requires a general equilibrium trade model and falls beyond the scope of this paper. Finally, non-economic arguments, such as national security, military considerations, and the desire to be world number one (Grossman, 1990) could also be relevant in the design of this policy. Regardless of the motivation, our analysis estimates the policy's costs and assesses the relative efficacy of different policy instruments.

**Related Literature**  There is a large theoretical literature on industrial policy (Hirschman, 1958; Baldwin, 1969; Krueger, 1990; Krugman, 1991; Harrison and Rodriguez-Clare, 2010; Stiglitz et al., 2013; Itskhoki and Moll, 2019). The earlier empirical literature on industrial policy mostly focuses on describing what happens to the benefiting industries (or countries) with regards to output, revenue, and growth rates (Baldwin and Krugman, 1988; Head, 1994; Luzio and Greenstein, 1995; Irwin, 2000; Hansen et al., 2003), while recent studies recognize the importance of measuring the impact on productivity and cross-sector spillovers (Aghion et al., 2015; Lane, 2019; Liu, 2019). A related literature analyzes trade policies, in particular export subsidies (Das et al., 2007), R&D subsidies (Hall and Van Reenen, 2000; Bloom et al., 2002; Wilson, 2009), place-based policies targeting disadvantaged geographical areas (Neumark and Simpson, 2015; Criscuolo et al., 2019), and environmental subsidies (Yi et al. 2015; Aldy et al. 2018).

Much of the existing literature focuses on whether industrial policy should be implemented at all and which sectors should be targeted. Our analysis, by contrast, examines the design of industrial policy within a sector, a question that has received much less attention in prior work. To

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the best of our knowledge, our paper provides the first structural analysis of a large-scale industrial policy using firm-level data that studies policy design and evaluates the performance of different policy instruments. The key features of our analysis are rich firm heterogeneity and market power, real business cycles and firm dynamics, and a variety of policy instruments in an important industry. We illustrate that how industrial policy is implemented can radically affect the dynamic evolution of an industry. At the same time, different policy instruments may entail very different returns.

Our paper also contributes to the growing literature studying how China's industrial development has been shaped by a variety of policy interventions, including consolidation policies (Rubens, 2021), R&D tax incentives (Chen et al., forthcoming), and value-added (VAT) tax reforms that stimulated firm investment (Liu and Mao, 2019; Chen et al., 2019; Bai and Liu, 2019). In addition, our study builds on an emerging literature on the shipbuilding industry (Thompson, 2001, 2007; Hanlon, 2018). Kalouptsidi (2018) is closely related to our paper and detects evidence of production subsidies for a subset of bulk carriers (Handysize). We examine the design, implementation, and efficacy of China's overall industrial policy and its impact on the global shipbuilding industry.

Methodologically, we build on the literature on dynamic estimation, including Bajari et al. (2007); Ackerberg et al. (2007); Pakes et al. (2007); Xu (2008); Aw et al. (2011); Ryan (2012); Collard-Wexler (2013); Sweeting (2013); Barwick and Pathak (2015); Fowlie et al. (2016), as well as the macro literature on firm investment (Abel and Eberly, 1994; Cooper and Haltiwanger, 2006). Complementing the macro literature that focuses on inaction (zero investment) and adjustment costs, our approach can rationalize different investments chosen by observably similar firms, while at the same time accommodate inaction and adjustment costs. Our analysis of firm investment builds on Ackerberg et al. (2007) and provides one of the first empirical applications of this model with continuous investment. This approach can be used in a variety of settings where heterogeneity in investment is an important consideration.

The rest of the paper is organized as follows. Section 2 provides an overview of China's shipbuilding industry and discusses the relevant industrial policy and our datasets. Section 3 presents the model. Sections 4 and 5 describe the estimation strategy and empirical results. Section 6 quantifies the policy impact on industry evolution and evaluates the performance of different policy instruments. Section 7 evaluates traditional rationales for industrial policy. Section 8 concludes.

## 2   Industry Background and Data

### 2.1   Industry Background

Shipbuilding is a classic target of industrial policy, as it is often seen as a strategic industry for both commercial and military purposes. During the late 1800s and early 1900s, Europe was the

dominant ship producer (especially the UK). After World War II, Japan subsidized shipbuilding along with several other industries to rebuild its industrial base and became the world's leader in ship production. South Korea went through the same phase in the 1970s and 1980s. In the 2000s, China followed Japan and South Korea and supported the shipbuilding industry via a broad set of policy instruments.

The scope of national policies issued in China in the 2000s, especially after 2005, to support its domestic shipbuilding industry is unprecedented. In 2002, when former Premier Zhu inspected the China State Shipbuilding Corporation (CSSC), one of the two largest shipbuilding conglomerates in China, he pointed out that "China hopes to become the world's largest shipbuilding country (in terms of output) [...] by 2015." Soon after, the central government issued the 2003 *National Marine Economic Development Plan* and proposed constructing three shipbuilding bases centered at the Bohai Sea area (Liaoning, Shandong, and Hebei), the East Sea area (Shanghai, Jiangsu, and Zhejiang), and the South Sea area (Guangdong).

The most important initiative was the 11th National Five-Year Economic Plan (2006-2010) which dubbed shipbuilding as a strategic industry. Since then, the shipbuilding industry, together with the marine equipment industry and the ship-repair industry, has received numerous supportive policies. Zhejiang was the first province that identified shipbuilding as a provincial pillar industry. Jiangsu is the close second, and set up dedicated banks to provide shipyards with favorable financing terms. In the 11th (2006-2010) and 12th (2011-2015) Five-Year plans, shipbuilding was identified as a pillar, or strategic industry by twelve and sixteen provinces, respectively. Besides these Five-Year Plans, the central government issued a series of policy documents with specific production and capacity quotas. For example, as part of the 2006 *Medium and Long Term Development Plan of Shipbuilding Industry*, the government set an annual production goal of 15 million deadweight tons (DWT) to be achieved by 2010, and 22 million DWT by 2015. Both goals were met several years in advance. Table A1 in the Appendix documents major national policies issued during our sample period.

The government adopted interventions that affected firms along several dimensions. We group policies that supported the Chinese shipbuilding industry into three categories: production, investment, and entry subsidies. Production subsidies lower the cost of producing ships. For instance, the government-buttressed domestic steel industry provides cheap steel, which is an important input for shipbuilding. Besides subsidized input materials, export credits (Collins and Grubb, 2008) and buyer financing in the form of collateral loans provided by local banks constitute other important components of production subsidies.[5] To help attract buyers, shipyards have traditionally offered loans and various financial services to facilitate purchasing payment. Investment subsidies take the

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[5]Until 2016, the Chinese government provided a range of subsidies for exporters, including reduced corporate income taxes, refund of the value-added-tax, etc. Shipbuilding companies benefit from export subsidies since most of their products are traded internationally.

form of low-interest long-term loans and other favorable credit terms that reduce the cost of investment, as well as preferential tax policies that allow for accelerated capital depreciation.[6] Finally, shortened processing time and simplified licensing procedures, as well as heavily subsidized land prices along the coastal regions, greatly lower the cost of entry for potential shipyards.

In response to the 2008 economic crisis that led to a sharp decline in global ship prices and in an effort to curb excess capacity and industry fragmentation, the government unvealed the 2009 *Plan on Adjusting and Revitalizing the Shipbuilding Industry* that resulted in an immediate moratorium on entry with increased investment subsidies to existing firms. This marked an important shift in China's industrial policy in the shipbuilding sector, where government support moved toward facilitating consolidation and creating large successful firms that can compete against international conglomerates. The most crucial policy for achieving consolidation objectives was the *Shipbuilding Industry Standard and Conditions* (2013), which instructed the government to periodically announce a list of selected firms that "meet the industry standard" and thus receive priority in subsidies and bank financing.[7] The so called "White List" included sixty firms in 2014 upon announcement.

In this paper, we focus on the production of three ship types: dry bulk carriers, tankers, and containerships, which account for more than 90% of world orders in tons in our sample period. Dry bulk carriers transport homogeneous and unpacked goods, such as iron ore, grain, coal, steel, etc., for individual shippers on non-scheduled routes. Tankers carry chemicals, crude oil, and other oil products. Containerships carry containerized cargos from different shippers in regular port-to-port itineraries. As these types of ships carry entirely different commodities, they are not substitutable; we thus treat them as operating in separate markets.

Shipbuilding worldwide is concentrated in China, Japan, and South Korea, which collectively account for over 90% of the world production. We limit our empirical analysis to shipyards in these three countries.

## 2.2 Data

Our empirical analysis draws on a number of datasets. The first dataset comes from Clarksons and contains quarterly information on all shipyards worldwide that produce ships for ocean transport between the first quarter of 1998 and the first quarter of 2014. We observe each yard's orders, deliveries, and backlog (which are undelivered orders that are under construction) measured in Compensated Gross Tons (CGT), for all major ship types, including bulk carriers, tankers, and

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[6]China implemented a value-added tax reform in 2009 that might have stimulated investment (Chen et al., 2019). This policy has limited impact on shipbuilding firms in our sample which are already exempt from value-added tax via exports subsidies.

[7]In practice, favorable financing terms and capital market access are often limited to firms on the White List post 2014.

containerships. CGT, which is a widely used measure of size in the industry, takes into consideration production complexities of different ships and is comparable across types.

The second data source is the annual database compiled by the National Bureau of Statistics (NBS) on Chinese manufacturing firms. For each shipyard and year, we observe its location (province and city) and ownership status (state-owned enterprises (SOEs), privately owned, or joint ventures with foreign investors). We differentiate SOEs that are part of China State Shipbuilding Corporation (CSSC) and China Shipbuilding Industry Corporation (CSIC), the two largest shipbuilding conglomerates in China, from other SOEs. We link firms over time and construct their real capital stock and investment following the procedure described by Brandt et al. (2012).[8]

In addition to these firm-level variables, we collect a number of aggregate variables for the shipbuilding industry, including quarterly global prices per CGT for each of the three ship types.[9] The steel ship plate price is employed as a cost shifter, as steel is a major input in shipbuilding. We merge all datasets to obtain a quarterly panel of Chinese, South Korean, and Japanese shipyards ranging from 1998 to 2013.

## 2.3   Descriptive Evidence and Summary Statistics

Similar to many other manufacturing industries in China, the shipbuilding industry experienced exponential growth since the mid 2000s. China became the largest shipbuilding country in terms of deadweight tons in 2009, overtaking South Korea and Japan. Figure 2 plots China's rapid ascent into global influence from 1998 to 2013. At the same time, a massive entry wave of new shipyards occurred along China's coastal area.[10] Figure 3 plots the total number of new shipyards by year for China, Japan, and South Korea. The number of entrants is modest for Japan (1.4 per year) and South Korea (1.2 per year), partly due to a lack of greenfield sites to build new shipyards. In contrast, the number of new shipyards in China registered a historic record and exceeded 30 per year during the boom years when the entry subsidy was in place. Entry dropped to 15 in 2009 and became minimal within a couple of years of the implementation of the 2009 entry moratorium, as

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[8]One limitation of the NBS database is that data for 2010 are missing. This prevents us from constructing the firm-level investment in either 2009 or 2010, since investment is imputed from changes in the capital stock.

[9]We experiment with two price indices, real RMB/CGT vs. USD/CGT, and obtain nearly identical results, suggesting that exchange rate fluctuations are not first-order in our analysis. Note that all monetary values reported in this paper are discounted and deflated to the 2006 RMB. The conversion rate for this period was 6.88 RMB for 1 U.S. dollar.

[10]The entry year for a shipyard is defined as the first year it takes an order or the first year it delivers minus two years to account for the time it takes to build a ship, whichever is earlier. As an additional measure of firm entry, we extracted the registration information (date and business scope) for 90% of Chinese firms from the Trade and Industry Bureau database. The overall entry pattern is similar across these two measures: entry peaked in 2005-2007 and became minimal post 2009. We use the entry year from the Clarkson's database in our main analysis, as the registration data suffer from several limitations. First, it is difficult to identify firms whose core business is shipbuilding from the registration data alone, as firms often register with a wide business scope. In addition, some firms switch from ship repairs and marine equipment to shipbuilding years after their official registration.

part of the *Plan on Adjusting and Revitalizing the Shipbuilding Industry*.[11]

The rise in entry was accompanied by a large and unprecedented increase in capital expansion (Figure 4). The year of 2006 alone witnessed a steep four-fold increase in investment. The capital expansion was universal across both entrants and incumbents and among firms with different ownership status. For example, entrants account for 43% of the aggregate investment from 2006 to 2011, with the remaining 57% implemented by incumbents. Private firms, joint ventures, and SOEs account for 25%, 36%, and 38% of total investment, respectively. In addition, the capital expansion was spread out across provinces, though Jiangsu accounted for a disproportionate share of 40% of the aggregate investment between 2006 and 2011.

The rapid rise in China's production, entry, and investment coincided with the introduction of China's industrial policy for the shipbuilding industry. The global shipbuilding industry went through a boom in the mid-2000s, roughly concurrent with China's initial expansion. As Figure 5 shows, ship prices began rising around 2003 and peaked in 2008, before collapsing in the aftermath of the financial crisis and remaining stagnant from 2009 to 2013. China's production and investment, on the other hand, continued to expand well after the financial crisis.

Table 1 contains summary statistics on key variables of interest. There are a large number of firms, with 266 Chinese shipyards, 108 Japanese shipyards, and 46 Korean shipyards. Industry concentration is low, with a world HHI that varies from 230 to 720 during the sample period.

An important feature of ship production is that shipyards take new orders infrequently, about 23% of the quarters for bulkers and less frequently for tankers and containerships. From 2009 onwards, during a prolonged period of low ship prices, the frequency with which yards took new orders was significantly lower. This lumpiness in ship orders that rendered Chinese shipyards increasingly vulnerable to long periods of inaction during the recession, is a key feature of the industry that informs our modeling choices in Section 3.

Finally, about 52% of firms in our sample produce one ship type, a pattern that holds across countries. The fraction of ships that produce all three ship types is higher in South Korea (28%) and Japan (16%) and lower in China (14%). If a shipyard never takes orders for a certain ship type throughout our sample, it is assumed not to produce this ship type.

## 3   Model

In this section, we introduce a dynamic model of firm entry, exit, and capital investment. In each period, incumbent firms engage in Cournot competition by choosing statically how much to produce. Then they choose whether or not to exit, and conditional on staying, how much to invest. A

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[11]No new applications were processed post 2009, but projects already approved were allowed to be completed. In addition, firms registered prior to 2009 but engaged in repairs and marine engineering could 'enter' and produce ships post 2009. Both account for the entry (though at a far reduced rate) past 2009.

pool of potential entrants make one-shot entry decisions based on their expected discounted stream of profits, as well as the cost of entry. At the end of the period, entry, exit, and investment decisions are implemented and the state evolves to the next period.

Time is discrete and is a quarter. In period $t$, there are $j = 1, ..., J_t$ firms in the world that produce ships. There are $m = 1, ..., M$ types of ships, such as dry bulk carriers, tankers, and containerships. Ships within a type are homogeneous.

**Ship Demand**    The aggregate inverse demand for ship type $m$ at time $t$ is given by the function,

$$P_{mt} = P(Q_{mt}, d_{mt}) \tag{1}$$

for $m = 1, ..., M$, where $P_{mt}$ is the market price of ship type $m$ in period $t$, $Q_{mt}$ is the total tonnage of type $m$ demanded, and $d_{mt}$ are demand shifters, such as freight rates and aggregate indicators of economic activity.

**Ship Production**    Firm $j$ produces $q_{jmt}$ tons at cost:

$$C\left(q_{jmt}, s_{jmt}, \omega_{jmt}\right) = c_0 + c_m\left(q_{jmt}, s_{jmt}, \omega_{jmt}\right)$$

where $c_0$ is a fixed cost that is incurred even when shipyards have zero production. Fixed costs are often abstracted away in empirical studies, but in later periods of our sample when the aggregate demand for new ships plummeted and many shipyards reported prolonged periods with zero production, fixed costs constitute a substantial fraction of overall costs and should thus not be omitted. They capture wages and compensation for managers, capital maintenance, land usage, etc.

The second term, $c_m(q_{jmt}, s_{jmt}, \omega_{jmt})$, is the variable production cost. We use $s_{jmt}$ to denote firm characteristics (e.g. capital, backlog, age, location, ownership status), as well as aggregate cost shifters that affect all shipyards (e.g. government subsidies, steel prices). In addition, production costs depend on a private shock $\omega_{jmt}$: the larger $\omega_{jmt}$ is, the less productive the firm is.

Firms engage in Cournot competition. They choose how many tons of ship type $m$ to produce in each period, $q_{jmt}$, to maximize their profits, taking as given the production decisions of rival firms. If the optimal production tonnage for type $m$, $q_{jmt}^*$, is positive, it satisfies the following first order condition:

$$P_{mt} + q_{jmt}\frac{\partial P(Q_{mt}, d_{mt})}{\partial q_{jmt}} = MC_m\left(q_{jmt}^*, s_{jmt}, \omega_{jmt}\right) \tag{2}$$

where $MC_m\left(q_{jmt}, s_{jmt}, \omega_{jmt}\right)$ is the marginal cost of production of type $m$. Note that firms are able to charge a markup equal to $q_{jmt}\frac{\partial P(Q_{mt}, d_{mt})}{\partial q_{jmt}}$ (in absolute value), thus distorting the market output levels.

**Firm Profit**   Let $s_{jt} = \{\{s_{i1t}, ..., s_{iMt}\}_{i=1,...,j,...,J}\}$ denote firm $j$'s state variable at time t, which is the union of its own observed state variables across ship types, as well as the states of its rivals. Let $\omega_{jt} = \{\omega_{j1t}, ..., \omega_{jMt}\}$ denote the union of cost shocks across ship types (that firms observe but econometricians do not). Firm $j$'s total expected profit from all types, before the cost shocks are realized, is given by:

$$\pi(s_{jt}) = \mathbb{E} \sum_{m=1}^{M} \pi_m(s_{jt}, \omega_{jmt})$$

where $\pi_m(s_{jt}, \omega_{jmt})$ is firm $j$'s profit from producing ship type $m$,[12] and $\mathbb{E}$ integrates out $\omega_{jt}$.

Finally, in each period, the prevailing ship price, $P_{mt}$, equates aggregate demand and supply, where the aggregate supply is the sum of $q_{jmt}^*$ defined in (2).

**Investment and Exit**   Once firms make their optimal production choice, they observe a private scrap (sell-off) value, $\phi_{jt}$, that is distributed i.i.d. with distribution $F_\phi$ and decide whether to remain in operation or exit. If a firm chooses to exit, it receives the scrap value. If it remains active, it observes a firm-specific random investment cost shock, $v_{jt}$, that is distributed i.i.d. with distribution $F_v$, and chooses investment $i_{jt}$ at cost $C^i(i_{jt}, v_{jt})$. The amount invested $i_{jt}$ is added to the firm's capital stock next period, which in turn affects its future production costs.

The value function for incumbent firm $j$ is:

$$V(s_{jt}, \phi_{jt}) = \pi(s_{jt}) + \max \left\{ \phi_{jt}, \mathbb{E}_{v_{jt}} \left( \max_i \left( -C^i(i, v_{jt}) + \beta \mathbb{E} \left[ V(s_{jt+1}) | s_{jt}, i \right] \right) \right) \right\} \quad (3)$$

$$= \pi(s_{jt}) + \max \left\{ \phi_{jt}, CV(s_{jt}) \right\}$$

$$CV(s_{jt}) \equiv \mathbb{E}_{v_{jt}} \left( -C^i(i^*, v_{jt}) + \beta \mathbb{E} \left[ V(s_{jt+1}) | s_{jt}, i^* \right] \right) \quad (4)$$

where $CV(s_{jt})$ denotes the continuation value, which includes the expected cost of optimal investment and the discounted future stream of profits. Note that, $\mathbb{E}_{v_{jt}}$ is the expectation with respect to the random investment cost shock $v_{jt}$ and $i^*$ denotes the optimal investment policy $i^* = i^*(s_{jt}, v_{jt})$.

The optimal exit policy is of the threshold form: the firm exits the market if the drawn scrap value $\phi_{jt}$ is higher than its continuation value $CV(s_{jt})$. Since the scrap value is random, the firm exits with probability, $p^x(s_{jt})$, defined by,

$$p^x(s_{jt}) \equiv \Pr\left(\phi_{jt} > CV(s_{jt})\right) = 1 - F_\phi\left(CV(s_{jt})\right) \quad (5)$$

where $F_\phi$ is the distribution of $\phi_{jt}$.

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[12]We take firms' product types as given and do not explicitly model firms' choices of which ship type to produce.

Conditional on staying, firm $j$ observes its investment shock, $v_{jt}$. Its optimal investment $i^* = i^*(s_{jt}, v_{jt})$, which is non-negative, satisfies the first-order condition:

$$\beta \frac{\partial \mathbb{E}\left[V(s_{jt+1})|s_{jt}, i^*\right]}{\partial i} \leq \frac{\partial C^i(i^*, v_{jt})}{\partial i} \tag{6}$$

with equality if and only if the optimal investment is strictly positive, $i^*(s_{jt}, v_{jt}) > 0$. When the investment costs are prohibitively high or the expected benefit too low, firms opt for no investment. Capital depreciates at rate $\delta$ that is common to all firms.

We assume that the cost of investment, $C^i(i_{jt}, v_{jt})$, has the following form:

$$C^i(i_{jt}, v_{jt}) = c_1 i_{jt} + c_2 i_{jt}^2 + c_3 v_{jt} i_{jt} + c_4 T_t i_{jt} \tag{7}$$

This (quadratic) specification borrows from the macro literature on investment costs (e.g. Cooper and Haltiwanger 2006) with two important differences. First, investment costs depend on the unobserved marginal cost shock $v_{jt}$. Much of the existing literature has focused on the lumpy nature of investment (inaction) and adjustment costs, but has not modeled heterogeneous investment decisions among observationally similar firms.[13] In practice, many factors affect firms' investment decisions. Some firms have political connections that grant them favorable access to the capital market (Magnolfi and Roncoroni, 2018). Others might be experienced at sourcing from equipment suppliers at low costs. We accommodate heterogeneous investment decisions among similar firms by introducing $v_{jt}$ that shifts the marginal cost of investment across firms. Note that $v_{jt}$ can also explain inaction: firms with unfavorably large $v_{jt}$ will choose not to invest. Once we control for $v_{jt}$, additional adjustment costs, such as $\frac{i_{jt}^2}{k_{jt}}$ and/or a (random) fixed cost, contribute little to the model fit.[14] A second difference from the literature is that we allow government policies $T_t$ to directly affect the marginal cost of investment.

**Entry** In each period $t$, $\bar{N}$ potential entrants observe the payoff relevant state variables and their private i.i.d. entry cost $\kappa_{jt}$ before making a one-time entry decision. The entry cost is drawn from a distribution $F_\kappa$ that is shifted by the government policy. If potential entrant $j$ decides not to enter, it vanishes with a payoff of zero.[15] If $j$ enters, it pays the entry cost and continues as an incumbent next period. In addition, the entrant is assumed to be endowed with a random initial capital stock

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[13]Notable exceptions include Ryan (2012) that models firm investment decisions as following an S-s rule and Collard-Wexler (2013) that analyzes discrete investment.

[14]The estimated fixed cost of investment, once included, is economically small. Fixed costs are associated with an inaction region where firms will not make investments smaller than a threshold. The larger the fixed cost, the larger the inaction region. Firms do make small investments in our data, which is inconsistent with a large fixed cost.

[15]Here we follow the bulk of the empirical literature on industry dynamics (Ericson and Pakes, 1995), where the entry decision involves a simple comparison between the value from entering the market and the random entry cost.

that is realized the following period once the firm becomes an incumbent and begins operation.

Potential entrant $j$ solves,

$$\max\left\{0, -\kappa_{jt} + \mathbb{E}\left[-C^i(k_{jt+1}) + \beta\mathbb{E}\left[V(s_{jt+1})|s_{jt}\right]\right]\right\}$$

where $\kappa_{jt}$ is the entry cost, $k_{jt+1}$ is entrant $j$'s initial capital stock in period $t+1$ after paying a cost of $C^i(k_{jt+1})$. The expectation is taken over entrant $j$'s information set at time $t$, which includes all aggregate state variables.

Similar to the exit decision, the optimal entry policy is of the optimal threshold form: a potential entrant enters the market if the entry cost $\kappa_{jt}$ drawn is lower than the value of entering, i.e.

$$\kappa_{jt} \leq VE(s_{jt}) \equiv \mathbb{E}\left[-C^i(k_{jt+1}) + \beta\mathbb{E}\left[V(s_{jt+1})|s_{jt}\right]\right]$$

Since $\kappa_{jt}$ is random, the potential entrant enters with probability, $p^e_{jt}$, defined by,

$$p^e_{jt} \equiv \Pr\left(\kappa_{jt} \leq VE(s_{jt})\right) = F_\kappa\left(VE(s_{jt})\right) \tag{8}$$

**Equilibrium**    A Markov-Perfect Equilibrium of this model consists of policies, $\{q_{jmt}\}_{m=1}^M$, $i^*(s_{jt}, v_{jt})$, $p^x(s_{jt})$, $p^e_{jt}$, value function $V(s_{jt})$ and prices $P_{mt}$, such that the production quantity satisfies (2) and maximizes the period profit, the investment policy satisfies (6), the exit policy satisfies (5), the entry policy satisfies (8), and ship prices clear the market each period so that aggregate demand equals aggregate supply. Moreover, the incumbent's value function satisfies (3) and firms employ the above policies to form expectations.[16]

**Industrial Policy**    Industrial policies affect the costs of production, investment, and entry and are thus part of the payoff relevant state variables, $s_{jt}$. We assume that these policies are unexpected and perceived as permanent by all shipyards once they are in place. This is consistent with the empirical patterns documented in Section 2.3, where the spike in entry and investment coincides remarkably well with the timing of these policies. We assume that the equilibrium before and after the policy is stationary and that thus the value functions are not indexed by $t$.

**Discussion**    We close this section with a brief discussion on our assumptions. We assume that ships are homogeneous within a type conditioning on size. To substantiate this assumption, we explore a sub-sample of new ship purchase contracts with detailed price information and ship attributes. Ship type, ship size in CGT, and quarter dummies explain most of the price variation: the $R^2$ of a hedonic price regression when these are the only regressors is 0.93 for bulkers, 0.94

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[16]Existence of equilibrium follows from Ericson and Pakes (1995) and Doraszelski and Satterthwaite (2010).

for tankers, and 0.75 for containerships. Ship and shipyard characteristics (age, country, number of docks and berths, etc.) have limited explanatory power: including shipyard fixed effects in the hedonic regressions adds little to the fit except for containerships where the $R^2$ increases moderately. On the ship buyer side (shipowners), monopsony power is not a first-order issue as the concentration among shipowners is low.[17]

We assume away dynamic considerations in production. In practice, producing a ship takes time and the production decision is in general dynamic: production today affects the backlog tomorrow, which affects tomorrow's operation costs and therefore production decisions. However, as documented in Kalouptsidi (2018), cost function estimates under static and dynamic assumptions are similar, especially the estimates that reflect the impact of policy interventions on firms' production costs. This is partly because the amount of drastic production expansion seen in practice cannot be explained by inter-temporal considerations that arise with dynamic production. We allow backlogs to affect the marginal cost of production, which proxies for dynamic considerations in a reduced-form manner.

We assume that cost shocks $\omega_{jmt}$ are i.i.d. There are several reasons for this choice. First, $\omega_{jmt}$ is estimated to be only moderately persistent, with a serial autocorrelation of 0.28 for bulkers, 0.27 for tankers, and 0.39 for containerships. Second, while it is straightforward to estimate the persistence of these shocks using observed quantity choices (see Section 4.1), incorporating a persistent time-varying unobserved state variable in a dynamic model raises considerable modeling and estimation challenges. For the same reason, the investment cost shocks $\nu_{jt}$ are assumed i.i.d. Given that aggregate investment increased by more than four-fold within a year upon the announcement of the 11th National Five-Year Plan (Figure 4) and that all firms expanded regardless of their efficiency level, firm-specific persistent investment shocks are unlikely a first-order contributing factor to the boom of the capital expansion observed in our sample.

Last, we follow the literature standard (Ryan, 2012) and assume that government policies are perceived as permanent by all firms. Relaxing this assumption and estimating firms' expectations and adaptation to a changing environment is a difficult but important topic for future research (Doraszelski et al., 2018; Jeon, 2018). One (imperfect) approach to proxy for a dynamic policy environment is to use lower discount rates so that future profits are less relevant for today's decisions. We test for the robustness of our results with different discount rates.

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[17]The containership segment may be concentrated among the operators, but they lease containerships from a large number of shipowning firms.

# 4 Estimation Strategy

In this section, we present the empirical approach undertaken to uncover model parameters. The key primitives of interest are: the world demand function for new ships, the shipyard production cost function, the investment cost function, the distribution of scrap values, and the distribution of entry costs. We estimate the heterogeneous production cost function for shipyards in all countries, but only analyze dynamic decisions (entry, exit, and investment) for Chinese shipyards. This is because aggregate data suggest that entry, exit, and capacity expansion are limited in Japan and South Korea (OECD, 2015, 2016), and because we do not have firm-level data on dynamic decisions for shipyards outside China.

This section is self-contained and the reader may omit it and proceed to the results section if desired. Section 4.1 discusses estimation of the static parameters (demand and production costs). Sections 4.2.1 and 4.2.2 present the first and second stage of estimating dynamic parameters respectively (investment cost, scrap values, as well as entry costs).

## 4.1 Estimation of Static Parameters

**Demand** The demand curve (1) for ship type $m$ is parameterized as follows:

$$Q_{mt} = \alpha_{0m} + \alpha_{pm}P_{mt} + d'_{mt}\alpha_{dm} + \varepsilon^d_{mt} \tag{9}$$

The demand shifters $d_{mt}$ include freight rates, the total backlog of type $m$, and some other type-specific variables. Demand for new ships is higher when demand for shipping services is high, reflected in higher freight rates.[18] Conversely, a large backlog implies that more ships will be delivered in the near future, which reduces demand for new ships today. We also control for aggregate indicators of economic activity relevant for each ship type we consider: the wheat price and Chinese iron ore imports for bulk carriers; Middle Eastern refinery production for oil tankers; and world car trade for containerships. In some specifications, we allow for time trends as well. Finally, we allow the price elasticity to change before and after 2006, the main policy year.

Prices are instrumented by steel prices and steel production.[19] Steel is a major input in shipbuilding and contributes to 13% of the costs (Stopford, 2009). The identification assumption is that steel prices and steel production are uncorrelated with new ship demand shocks $\varepsilon^d_{mt}$. This is a plausible assumption because only a modest portion of global steel production is used in shipbuilding

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[18]The freight rate measures are the Baltic Exchange Freight Index for bulk shipping, the Baltic Exchange Clean Tanker Index for tankers, and the Containership Timecharter Rate Index for containerships.

[19]Other potential instruments include the aggregate number of shipyards, $J_t$, and the aggregate capital stock. These cost-side instruments shift the industry supply curve and are determined in period $t-1$, before demand shocks in period $t$ are realized. Results are robust with or without these additional IVs.

and an increase in ship demand ($\varepsilon_{mt}^d > 0$) is unlikely to have much impact on steel prices.[20] As there is a single global market for each ship type, the demand curves are estimated from time series variation.

**Production Costs**  We parameterize the marginal cost function for type $m$, $MC_m\left(q_{jmt}, s_{jmt}, \omega_{jmt}\right)$, as follows:

$$MC_m(q_{jmt}, s_{jmt}, \omega_{jmt}) = \beta_{0m} + s_{jmt}\beta_{sm} + \beta_{qm}q_{jmt} + \omega_{jmt}$$

where $q_{jmt}$ denotes tons of ship type $m$ produced by firm $j$ in period $t$. Because of time to build, there are differences between orders placed, deliveries and production in a given period. We use orders as a measure of $q_{jmt}$, because the number of tons ordered is the relevant quantity decision made by the firm and responds to observed ship prices. In addition, our data source reports orders and deliveries instead of production and it is not straightforward to infer production from orders.

Cost shifters $s_{jmt}$ include firm $j$'s capital and its backlog of all ship types. Capital stock accumulates through investment over time and reduces production costs via economies of scale. Backlogs capture learning by doing, economies of scale, and possibly capacity constraints. In addition, $s_{jmt}$ contains shipyard $j$'s age and ownership status, nationality and region (for Chinese firms), a dummy for large firms, the steel price, as well as polynomial terms of these state variables.[21] Lastly, $s_{jmt}$ includes dummies for the policy intervention between 2006 and 2008 and then from 2009 onwards. The production cost shock $\omega_{jmt}$ is assumed to be normally distributed with mean zero and variance $\sigma_{\omega m}^2$. The parameters characterizing shipyards' production costs are $\theta^q \equiv \left\{\beta_{0m}, \beta_{sm}, \beta_{qm}, \sigma_{\omega m}\right\}_{m=1}^M$. We estimate these parameters via a Tobit model:

$$L = \prod_{m=1}^M \prod_{q_{jmt}=0} Pr(q_{jmt} = 0 | s_{jt}; \theta^q) \prod_{q_{jmt}>0} f_q(q_{jmt} | s_{jt}; \theta^q)$$

Note that $\theta^q$ is consistently estimated even when $\omega_{jmt}$ is correlated over time, despite the fact that this likelihood function assumes (erroneously) that $\omega_{jmt}$ is i.i.d. (Robinson, 1982).[22] To obtain the standard errors allowing for autocorrelation in $\omega_{jmt}$, we use 500 block bootstraps.

A firm's production decisions provide no information on the fixed cost $c_0$ (costs of land usage, capital maintenance, etc.), since the firm incurs this regardless of whether it produces. Unlike most

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[20]Internationally traded steel accounts for less than 8% of the volume of goods transported by dry bulk carriers (UNC-TAD, 2018). Thus, changes in the steel price that affect the amount of steel transported by sea are unlikely to directly affect demand for dry bulk carriers.

[21]Large firms are defined as firms that account for top 90% of aggregate industry revenue from ship production during our sample period. Fifty-five Chinese shipyards are large. Adding this variable (on top of capital and other firm attributes) helps to capture unobserved differences across firms, like management skills, political connections, etc. and improves the fit of our model.

[22]Intuitively this is similar to how the OLS estimator in the standard linear regression model continues to be consistent (though not efficient) when the errors are non i.i.d.

empirical studies where fixed costs are assumed away, we take advantage of the accounting cost data to calibrate $c_0$, as firms report costs incurred even during periods when the production facility is idle. Details on this calibration procedure are reported in Appendix B.1. Restricting the fixed cost to zero may bias the counterfactual analyses (Aguirregabiria and Suzuki, 2014; Kalouptsidi et al., 2021); we discuss this issue further in Section 6.1.

## 4.2 Estimation of Dynamic Parameters

We use observed firm investment decisions, entry and exit to estimate dynamic parameters. An important complication is that firms' optimal choices depend on the value function (as well unobserved cost shocks for investment), which is unknown. To tackle this challenge, we follow the tradition of Hotz and Miller (1993) and Bajari et al. (2007) (henceforth BBL) and estimate the parameters in two stages. In the first stage, we flexibly estimate investment and exit policy functions, as well as the transition process of state variables from the data. Then, we use these estimates to obtain a flexible approximation of the value function. We approximate the value function by a set of B-spline basis functions of state variables, following Sweeting (2013) and Barwick and Pathak (2015). In the second stage, we formulate the likelihood of the observed investment and exit and recover the dynamic parameters of interest. Appendix B contains additional details.

### 4.2.1 First Stage

**Exit Policy Function**   Estimating the exit policy function can be done via a number of different approaches (linear probability models, logit or probit, local polynomial regressions, etc.). Here, we perform a probit regression, though results are robust across different specifications:

$$Pr(\chi_{jt} = 1 | s_{jt}) = \Phi(h(s_{jt}))$$

where $\chi_{jt}$ equals 1 if firm $j$ exits in period $t$, $h(s_{jt})$ is a flexible polynomial of the states, and $\Phi$ is the normal distribution. We denote the first-stage estimate of the exit probability by $\hat{p}^x(s_{jt})$.

**Investment Policy Function**   The optimal investment policy function $i_{jt}^*(s_{jt}, \nu_{jt})$ is implicitly defined by the first order condition in equation (6). Our goal is to flexibly estimate $i_{jt}^*(s_{jt}, \nu_{jt})$. Under reasonable assumptions, one can show that the optimal investment is monotonically decreasing in $\nu_{jt}$: firms with more favorable (smaller) cost shocks invest more, all else equal.[23] As a result, conditioning on $s_{jt}$, the j$^{th}$ quantile of $\nu_{jt}$ corresponds to the $(100 - j^{th})$ quantile of $i_{jt}$ in the data. As

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[23]One sufficient condition for monotonicity is that the value function has increasing differences in investment and the negative of the investment shock.

shown in Bajari et al. (2007), we can recover the optimal investment policy function $i_{jt}^*(s_{jt}, \nu_{jt})$ as follows:

$$F(i|s_{jt}) = Pr(i_{jt}^* \leq i|s_{jt}) = Pr(\nu_{jt} \geq i^{*-1}(s_{jt}, i)|s_{jt}) = Pr(\nu_{jt} \geq \nu|s_{jt})$$
$$= 1 - F_\nu(\nu|s_{jt})$$

which implies $\quad i^*|s_{jt} = F^{-1}\big(1 - F_\nu(\nu|s_{jt})\big)$ \hfill (10)

where $F(i|s_{jt})$ denotes the empirical distribution of investment given the state variables and $F_\nu$ is the distribution of $\nu$. The data requirement for estimating this conditional distribution non-parametrically increases dramatically with the number of state variables. We make the simplifying assumption that the investment cost shock $\nu_{jt}$ is independent of observed state variables $s_{jt}$ and is additive:

$$i_{jt}^* = h_1(s_{jt}) + h_2(\nu_{jt})$$

where both $h_1(s_{jt})$ and $h_2(\nu_{jt})$ are unknown functions to be estimated. Moreover, since the distribution of $\nu_{jt}$ cannot be separately identified from $h_2(\nu_{jt})$ non-parametrically, we assume that $\nu_{jt}$ is distributed standard normal. We first flexibly regress observed investment on the state variables to obtain an estimate of $h_1(s_{jt})$. Then we treat $i_{jt}^* - \hat{h}_1(s_{jt})$ as the relevant data and estimate function $h_2(\cdot)$ using equation (10).

We do not incorporate divestment in our analysis. Compared to the massive investment undertaken by Chinese shipyards, divestment is much less common and an order of magnitude smaller.[24] Modeling the level of divestment introduces a kink in the cost function and makes the value function non-differentiable, which raises considerable computational challenges.

**State Space**    The state variable $s_{jt}$ is a high-dimensional object because of the large number of firms in the industry. To reduce the computational burden, we assume that firms do not keep track of the state variables of every rival. Instead, they use industry-level prices as sufficient statistics. As discussed in section 5.1, our estimates suggest that the extent of market power is limited. This approach is similar in spirit to the oblivious equilibrium concept by Weintraub et al. (2008) and Benkard et al. (2015) that approximates the Markov Perfect Equilibrium in industries with many firms, as well as Ifrach and Weintraub (2017). These techniques have been utilized in a series of empirical papers, including Huang et al. (2015), Sweeting (2015), Gerarden (2017), Jeon (2018)

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[24]The aggregate divestment is about 12% of the aggregate positive investment in the industry. We also drop 5% outliers with investment exceeding RMB 250 million or capital stocks exceeding RMB 4 billion. In addition, we perform two robustness checks on estimates of the investment policy function that formally address non-negative investment: Tobit and the Censored Least Absolute Deviation estimator (CLAD). Appendix B.2 provides more details.

and Chen and Xu (2018).

In addition, we utilize the fact that a number of state variables enter the firm's marginal cost linearly and collapse them into a one-dimensional index, $\bar{s}_{jt} = -s_{jmt}\hat{\beta}_{sm}$, using the estimated production cost coefficients. This index measures firms' observed cost efficiency: a higher $\bar{s}_{jt}$ is associated with a lower marginal cost and a higher variable profit. Appendix B.3 provides more details.

**State Transition Process**   Some state variables, such as the province and ownership status, are fixed over time. The transition process for age is deterministic. Capital ($k_{jt}$) depreciates at a common rate $\delta$: $k_{jt+1} = (1-\delta)k_{jt} + i_{jt}$. We calibrate $\delta$ to 2.3% quarterly (Brandt et al., 2012), reflecting China's high interest rates over our sample period. Backlog in period $t+1$ is determined by orders and deliveries in period $t$. We assume backlog at time $t+1$ satisfies an AR(1) process: $b_{jm,t+1} = (1-\delta_{bm})b_{jmt} + q_{jmt}$, and calibrate $\delta_{bm}$ based on average deliveries.[25]

The equilibrium price for each ship type is a complicated object, determined by the aggregate demand and supply. Following other work in the literature (e.g. Aguirregabiria and Nevo 2013), we model ship prices as an AR(1) process. The introduction of government policies presents a permanent and unanticipated shock to the industry, which can potentially affect the evolution of prices. To capture this, we allow the AR(1) process to differ before and after 2006 when the policies came into effect.

**Value Function Approximation**   Armed with estimates of the policy functions and state transitions, we now turn to the value function. We assume that the scrap value $\phi_{jt}$ is distributed exponentially with parameter $1/\sigma_\phi$ and obtain the ex ante value function (i.e. prior to the realization of $\phi_{jt}$) as follows:

$$
\begin{aligned}
V(s_{jt}) \equiv \mathbb{E}_\phi V\left(s_{jt}, \phi_{jt}\right) &= \mathbb{E}_\phi\left[\pi(s_{jt}) + \max\left\{\phi_{jt}, CV(s_{jt})\right\}\right] \\
&= \pi(s_{jt}) + p^x(s_{jt})\mathbb{E}\left(\phi_{jt} | \phi_{jt} > CV\left(s_{jt}\right)\right) + \left(1 - p^x(s_{jt})\right)CV(s_{jt}) \\
&= \pi(s_{jt}) + p^x(s_{jt})\sigma_\phi + CV(s_{jt})
\end{aligned}
\tag{11}
$$

where we use the fact that $\mathbb{E}(\phi | \phi > CV) = \sigma_\phi + CV$, as shown in Pakes et al. (2007). $\pi_{jt}(s_{jt})$ and $p^x(s_{jt})$ denote firms' static profit and exit probability, respectively, and $CV(s_{jt})$ denotes the firm's continuation value as defined in equation (4).

The ex-ante value function in our context is smooth and can be approximated arbitrarily well by B-spline basis functions of state variables, so that $V(s_{jt}) = \sum_{l=1}^L \gamma_l u_l(s_{jt})$, where $\{u_l(s_{jt})\}_{l=1}^L$ are

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[25]Backlog's quarterly depreciation rate , $\delta_{bm}$, equals 6.8% for bulk carriers, 6.3% for tankers, and 6.2% for containerships.

basis functions and $\{\gamma_l\}_{l=1}^{L}$ are coefficients to be estimated. This approach has several advantages. First, it avoids discretization and approximation errors therein when the state space is large. Second, replacing an unknown function with a finite set of unknown parameters substantially reduces the computational burden.[26] Third, the accuracy of the value function approximation can be controlled via appropriate choices of basis functions and is directly benchmarked by the violation of the Bellman equation (11). Appendix B.3 provides more details on the value function approximation and describes how we construct the state space and estimate $\{\gamma_l\}_{l=1}^{L}$.

### 4.2.2 Second Stage

**Investment and Exit**  We estimate the dynamic parameters $\theta^i \equiv \{\sigma_\phi, c_1, c_2, c_3, c_4\}$ via MLE, where the sample likelihood includes both the likelihood for exit decisions and the likelihood for investment decisions. The log-likelihood for exit is:

$$\sum_{j,t} \log(f(\chi_{jt})) = \sum_{j,t} \left[ (1 - \chi_{jt}) \log(1 - e^{-\frac{CV(s_{jt};\gamma)}{\sigma_\phi}}) - \chi_{jt} \frac{CV(s_{jt};\gamma)}{\sigma_\phi} \right]$$

where $\chi_{jt} = 1$ if firm $j$ exits in period $t$.

Optimal investment $i_{jt}^* = i^*(s_{jt}, v_{jt})$ is defined by the first order condition in (6). By construction, when $i^*(s_{jt}, v_{jt})$ is positive, it is strictly monotonic in $v_{jt}$. Assuming it is also differentiable, the likelihood of investment can be written as follows:[27]

$$g(i_{jt}) = \begin{cases} \frac{f_v(v_{jt})}{|i'(v_{jt})|} & \text{if } i^*(s_{jt}, v_{jt}) > 0 \\ Pr\left( \left[ \beta \frac{\partial \mathbb{E}(V(s_{jt+1};\gamma)|s_{jt},i)}{\partial i} - \frac{\partial C^i(i,v_{jt})}{\partial i} \right]_{i=0} \leq 0 \right) & \text{if } i^*(s_{jt}, v_{jt}) \leq 0 \end{cases}$$

where in the first row, $f_v(v_{jt})$ is the density of cost shock $v_{jt}$ and $|i'(v_{jt})|$ is the absolute value of the derivative of $i^*(s_{jt}, v_{jt})$ with respect to $v_{jt}$.

Since the scrap value $\phi_{jt}$ and investment shock $v_{jt}$ are assumed independent, the joint log-likelihood for exit and investment decisions is the sum of the two respective log-likelihoods. We maximize the sample log likelihood subject to the constraint that the Bellman equation (11) is

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[26]Another popular approach to calculate the value function is via forward simulation. The computational burden of our approach is comparable to forward simulation when the policy function is linear in parameters.

[27]The necessary condition for differentiability is that the value function is twice differentiable in investment, which holds since the value function is approximated by smooth spline basis functions.

satisfied (see Appendix B.3 for details):

$$\max_{\theta^i} L = \sum_{j,t} log(f(\chi_{jt}; \theta^i)) + \sum_{j,t} log(g(i_{jt}; \theta^i))$$ (12)

$$\text{s.t.} \quad V(s_{jt}; \theta^i) = \pi(s_{jt}) + p^x(s_{jt})\sigma_\phi + CV(s_{jt}; \theta^i)$$

**Entry Cost Parameters**   Estimating the distribution of entry costs is straightforward once the investment cost and scrap value parameters are known. A potential entrant enters if their value of entry exceeds the random entry cost:

$$\kappa_{jt}(T_t) \leq VE(s_{jt}) \equiv \mathbb{E}\left[-C^i(k_{jt+1}) + \beta \mathbb{E}\left[V(s_{jt+1})|s_{jt}\right]\right]$$

Upon entry, an entrant is endowed with a capital that is drawn from the observed distribution of initial capital stocks. The cost of the initial capital equals $C^i(k_{t+1}) = c_1 k_{t+1} + c_4 T_t k_{t+1}$, which is the same as the cost of investment, except that there are no adjustment costs. We first construct the value of entry $VE(s_{jt})$ plugging in dynamic parameter estimates and then estimate the mean entry costs using the observed entry decisions via MLE.

# 5   Results

This section follows closely the sequence in Section 4. Section 5.1 presents results on static parameters (demand and production costs). Section 5.2 discusses policy functions and state transition process. Section 5.3 reports dynamic parameter estimates (investment cost, scrap values, as well as entry costs). Section 5.4 evaluates robustness.

## 5.1   Static Parameters

**Demand**   Table C2 in the Appendix reports estimates of the demand curve (9). Demand becomes less elastic post 2006. According to our preferred specification (Column 2), the price elasticity prior to 2006 was 1.8 for bulk carriers and tankers, and 3.4 for containerships. It fell to 0.3 for bulk carriers, 0.6 for tankers, and 1.7 for containerships post 2006.[28] As expected, demand is also responsive to backlog (which affects the future competition that shipowners face): a 1% increase in the backlog leads to a 1% decrease in the quantity of new ships demanded. The remaining variables have the expected sign.

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[28]Demand elasticity for new ships, which are durable goods, is driven by complicated dynamic considerations that include the composition of existing fleet, the expected number of new ships to be delivered in the near future, and beliefs about future freight rates and fuel costs. Hence, it could either increase or decrease post 2006.

**Production Costs**   Table 2 shows the estimated marginal cost parameters for Chinese yards for each ship type (standard errors are computed from 500 block bootstrap simulations). The key parameters that characterize the curvature of production cost is type specific (the coefficients on quantity, capital, backlog, and steel price), but coefficients on subsidy dummies and shipyard attributes are restricted to be the same across ship types, to reduce the number of parameters. There are intuitive reasons for these restrictions. For example, the benefit of scale economies from holding a large backlog, the return to capital (which proxies for capacity), and input intensity are likely to be different across ship types. On the other hand, the effect of subsidies on production costs is probably similar across types, as subsidies are not earmarked for a particular ship type and firms can produce different kinds of ships depending on prevailing market conditions.

As China's policies came into effect in 2006 and underwent major changes in 2009, we allow production subsidies to be different between 2006-2008 and from 2009 onwards. The production subsidy is estimated to be 2,100 RMB/CGT between 2006-2008, which is 14-18% of the average price. The subsidy from 2009 onwards is smaller, at 1,220 RMB/CGT. Though our estimation method, sample period, and industry coverage are different from those in Kalouptsidi (2018), the estimated production subsidy is of a similar magnitude (with ours being slightly smaller), which is reassuring.

The parameter $\beta_q$ captures the increase in marginal cost (in 1000 RMB/CGT) from taking an additional order of 100,000 CGT. The larger $\beta_q$ is, the more convex the cost function is, and the less responsive supply is to price changes. On average, a 10% price increase causes bulk carrier production to increase by 22%, tanker production by 27%, and containership production by 20%. Higher capital is associated with a lower marginal cost of production, though at a diminishing rate (the coefficient on capital squared is positive). Increasing capital by RMB 100 million for an average firm with a capital of RMB 400 million reduces marginal cost of production by 2.7% for bulkers, 2.2% for tankers, and 2.2% for containerships. To put these numbers into context, the average firm's per-period profits would decline by 19% if its capital stock were halved.

Moreover, we find evidence of economies of scale in production with respect to backlog: it is cheaper to produce multiple ships at the same time. The effect of backlog on marginal cost is sizable: increasing backlog by 100,000 CGT reduces marginal cost of production by 13% to 30% on average across ship types. As backlogs continue to increase, capacity constraints begin to bind and drive up marginal costs, as reflected in the positive coefficient (though much smaller in magnitude) on backlog squared.

Firms located in Jiangsu, Liaoning, and Zhejiang provinces (the major shipbuilding regions in China) have lower marginal costs, by 20-26% for Jiangsu, 14-18% for Liaoning, and 11-14% for Zhejiang. As shipyards age, their marginal cost increases by about 1% each year. The (additional) effect of ownership is limited and statistically insignificant. Increases in steel price raise marginal

cost for all types, as expected.

Our results indicate that market power distortions are limited. The markup, $q_{jmt} \frac{\partial P(Q_{mt}, d_{mt})}{\partial q_{jmt}}$ (in absolute value), is on average 1.35% of price for bulk carriers, 0.35% of price for tankers and 0.23% of price for containerships. As a result, firms' production decisions are not far from setting marginal cost equal to the market price, suggesting that the industry is close to competitive.

Finally, the fixed cost calibrated from accounting data equals RMB 15 million per quarter, equivalent to 12% of the industry profit on average. Hence, setting it to zero, as is commonly done in the literature, would significantly overestimate per-period profits accruing to firms.

## 5.2 Dynamic Parameters: First Stage

**Investment Policy Function** Table C7 in the Appendix reports estimates for the investment policy function using OLS, Tobit with $h_2(v)$ normally distributed, and the Censored Least Absolute Deviation estimator (CLAD) that does not impose a distributional assumption on the cost shock and estimates $h_2(v)$ non-parametrically. Our preferred specification is OLS, which delivers the highest model fit. Investment increases in ship prices and decreases in steel price. Firms with higher $\bar{s}_{jt}$ (i.e., more productive) invest more all else equal. As expected, coefficients for both the 2006-08 and 2009+ policy dummies are positive. Moreover, investment is hump-shaped with respect to capital: it initially increases in capital stock, reaches a peak when capital is between RMB 1-1.5 billion, and then falls.

**Exit Policy Function** We estimate the exit policy function via a probit regression. Table C8 in the Appendix presents two sets of estimates using linear terms of all states as well as capital squared, with and without region fixed effects. Firms with higher $\bar{s}_{jt}$ are less likely to exit, which is intuitive as $\bar{s}_{jt}$ is a measure of firm profitability. Exit probabilities are lower when subsidies are in place.

## 5.3 Dynamic Parameters: Second Stage

**Investment and Exit** Table 3 reports investment cost estimates. Following the empirical literature on investment (Cooper and Haltiwanger, 2006), we assume that the unit investment cost is equal to one ($c_1 = 1$).[29] Between 2006-2008, the subsidy was 0.27 RMB per RMB of investment, implying that 27% of the per-unit cost of investment (excluding adjustment costs) is subsidized. Post 2009, the subsidy jumps to 0.46 RMB per RMB of investment, which helps rationalize the elevated investment post the financial crisis with plummeting ship prices. In addition, the increase in subsidies post 2009 is consistent with the government policy change that shifted the focus towards consolidating the industry and supporting existing firms.

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[29]Monte Carlo evidence indicates that it is difficult to identify all cost parameters in equation (7).

The coefficient on quadratic investment, $c_2$, is both economically and statistically significant. On average, adjustment costs account for 28% of total investment costs and exceed 50% for large investments over RMB 50 million. The large estimate of $c_3$ reflects the importance of firm-level unobserved investment shocks. Finally, average scrap value is estimated to be RMB 0.98 billion. This is significantly lower than the estimated value of a firm, $V(s_{jt})$, which is around three to four billion RMB, as exit is a rare event and occurs in only 1% of the observations.

Figure C1 in the Appendix plots the distribution of the observed and simulated investment. These two distributions are reasonably similar, though actual investment has a longer tail of large investments and fewer medium-sized ones. Table C10 in the Appendix compares the actual number of exits with the model's estimates. Firm exits are low-probability events and in general difficult to predict (Goldfarb and Xiao, 2016). Our model roughly matches the sample mean but under-predicts the number of exits post 2006.

**Entry Cost Estimates** The number of entrants is quite different across provinces, with Zhejiang having the highest number of entrants during our sample period at 95, and the three provinces – Liaoning, Jiangsu, Zhejiang – collectively accounting for 70% of new shipyards. Hence, we estimate the entry cost separately for Liaoning, Jiangsu, Zhejiang, and the rest of China.[30] We also allow the entry cost to differ across policy periods. Table 4 reports estimates for $\kappa_{jt}$, the mean entry costs, for period before 2006, between 2006 and 2008, and post 2009 respectively. In light of the unprecedented entry boom from 2006 to 2008, it is not surprising that we find substantial entry subsidies, with the fraction of entry costs that is subsidized varying from 51% in Liaoning to 64% in Jiangsu. Entry costs increased substantially in 2009 when the entry moratorium was put in place. Conditional on entering, the average entry cost paid is RMB 2.5 billion, close to a shipyard's accounting value.[31] Our estimated number of entrants is reasonably close to the actual number of entrants in each policy period (Table C11 in the Appendix).

## 5.4 Robustness

The baseline specification estimates production costs separately for each country. Table C4 in the Appendix displays parameter estimates pooling shipyards from all three countries, which amounts to a differences-in-differences estimator. As we do not observe capital for Japanese and South Korean shipyards, we set their capital stock to zero and add country dummies. Results are qualitatively similar to the baseline, though the 2006-08 subsidy is somewhat larger. We prefer the

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[30]Entry subsidies are assumed to begin in 2004 for Zhejiang, when it identified shipbuilding as a pillar industry, and in 2006 for all other provinces. The observed entry peaked earlier in Zhejiang than the rest of the country.

[31]The average entry cost conditional on entering is given by $\mathbb{E}(\kappa_{jt}|\kappa_{jt} \leq VE(s_{jt}))$. See http://www.jiemian.com/article/1483665.html and http://www.wuhu.com.cn/compay_mod_file/news_detail.php?cart=3&id=595 for news articles that report the book value of shipyards.

baseline specification, which allows more flexibility in capturing production differences across countries and delivers a more conservative estimate of the subsidy magnitude.[32]

Next, we explore whether there is evidence of learning-by-doing among Chinese shipyards (Benkard, 2004). We examine both within-firm and industry-wide learning-by-doing by allowing the marginal cost of production to depend on a firm's past production, as well as the industry cumulative past production. The results are illustrated in Table C5 in the Appendix. Despite the potential upward bias in the estimated spillover effects in the absence of suitable instruments, our estimates suggest no evidence of learning-by-doing: marginal costs tend to *increase* rather than decrease in past production. This is consistent with industry reports that the technology for producing ships, especially bulk carriers and tankers, has been around for decades and is mature. Incorporating a time trend or excluding new shipyards that entered after the policy announcement (which might have newer and better technologies) leads to similar results (see Table C6 in the Appendix). We have also estimated production subsidies separately for each region. They are higher in Jiangsu and Liaoning than in Zhejiang and the rest of China, although the differences are statistically insignificant.

While in principle the estimated production costs depend on demand elasticity for new ships, in our setting they are robust to demand elasticity largely because markups are modest. For example, assuming the pre-2006 demand elasticity to be the same as the post-2006 demand elasticity only moderately increases the average markup from 1.35% of the average price to 1.42% for bulk carriers and has little impact on cost estimates.

A common challenge in estimating entry costs is that the number of potential entrants $\bar{N}$ is inherently unobserved. Our baseline assumes that the number of potential entrants in a region in any quarter is twice the maximum number of observed entrants in that region, following the literature (Seim, 2006). We have estimated the entry cost under alternative assumptions (e.g. the maximum number of entrants ever observed, or a large number such as 20 and 40). While a higher number of potential entrants leads to a higher estimate $\kappa_{jt}$, the estimated entry cost paid upon entering and entry subsidies are remarkably robust as they are determined by the actual number of entrants and the value of entry (which is estimated using observed ship prices and firm production). Finally, our main specification assumes an annual discount rate of 0.08, reflecting the high interest rates in China (averaging 6% from 1996 to 2018). Results are reasonably robust to different discount factors and exhibit intuitive patterns.[33]

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[32]Using cost estimates that pool data from all three countries leads to qualitatively similar counterfactual results.

[33]For example, using a discount rate of 0.05, investment subsidy in 2006-2008 changes from 0.27 to 0.25 and subsidy post-2009 changes from 0.46 to 0.4. Intuitively, the higher the discount rate, the less firms value future profits, and the bigger investment subsidies are to rationalize observed jumps in investment.

# 6  Evaluation of China's Industrial Policy in Shipbuilding

Like other countries that use industrial policies to promote specific sectors (Krugman et al., 1983; Lane, 2019), China adopted a variety of policy instruments to boost the shipbuilding industry's output, including production, entry and investment subsidies. Moreover, the policy implementation underwent significant changes over time. Early on, subsidies were widely accessible to all firms. In latter years, the government shifted support towards SOEs and established firms (the White List), while curbing entry of new firms.

In this section, we evaluate the long-term implications of China's industrial policy. Our goal is to assess the relative performance of different policy instruments, taking into account the critical role played by firm heterogeneity, dynamics and business cycles. Specifically, we address the following questions: (i) which policy instruments are the most effective among production, investment and entry subsidies; (ii) how should industrial policy be designed in the presence of industry fluctuations and business cycles; (iii) what are the consequences of targeting subsidies towards selected firms through consolidation policies such as the White List?

Evaluating the industrial policy's long-term impact necessitates simulating the world shipbuilding industry for a long period of time, as both entry and investment have dynamic consequences – the accumulated capital remains productive and new firms often continue operation long after the policy ends.[34] Our simulation begins in 2006, when the Chinese government started subsidizing its domestic industry, and ends in 2050, a period long enough to evaluate a policy's dynamic impacts, though results are similar if the simulation ends in 2099 or between 2050 and 2099. In each counterfactual scenario, we turn on and off the subsidies as needed, and report the industry average over 50 independent simulations (results are nearly identical with 100 simulations.) Chinese firms make production, investment, exit and entry decisions. Japanese and South Korean firms choose production. Equilibrium prices are determined by the intersection of the industry demand and supply curves. All monetary values reported in this paper are discounted and deflated to the 2006 RMB. Appendix D.1 contains more details on implementation.

Section 6.1 quantifies how the policy affected the actual evolution of the domestic and global industry between 2006 and 2013. Section 6.2 assesses the long-term performance of different policy instruments and discusses various aspects of policy design, such as the timing of subsidies and targeting. Section 6.3 evaluates the consolidation policy.

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[34]Production subsidies also have dynamic consequences through backlogs that affect future costs of production, though these effects disappear within a few years when backlogs are converted to deliveries.

## 6.1 Impact on Industry Evolution

Perhaps not surprisingly, the Chinese government's subsidies had a significant impact on the evolution of every outcome of interest: China's market share, total ship production, ship prices, entry and exit, investment, profits, industry concentration and capital utilization.

Total (discounted) subsidies handed out to Chinese shipbuilders between 2006 and 2013 were close to RMB 624 billion ($91 billion), which can be broken down into entry subsidies (RMB 431 billion), production subsidies (RMB 156 billion) and investment subsidies (RMB 37 billion).[35] These subsidies are massive in comparison to the size of the domestic industry, whose revenue was around RMB 1360 billion during the same period.

Government support increased China's world market share during 2006-13 by 42%. The ascent in market share is most pronounced for bulk carriers, since a large fraction of new shipbuilders produce bulk carriers and the cost advantage enjoyed by Japanese and South Korean firms is narrower for such ships.

In absolute terms, only 30% of China's increased production translated into higher world industry output. The remaining 70% constitutes business-stealing, whereby Chinese production expanded at the expense of competing firms in other countries. As a consequence of Chinese subsidies, South Korea's world market share decreased from 48% to 39% and Japan's world market share from 23% to 20% during 2006-2013, with profits earned by shipyards in these two countries falling by RMB 144 billion. Despite Chinese shipyards' rising market share, their gross-profit gains during this period are a modest RMB 153 billion, as the output expansion was largely fueled by the entry of inefficient firms.[36]

The rising global supply induced by the subsidies led to a substantial reduction in global ship prices: the price of bulk carriers, oil tankers, and containerships fell by 9.9%, 10.1%, and 4.3% from 2006 to 2008, respectively (Table D12). The price effect is the most significant for bulk carriers, because Chinese shipyards account for a bigger market share and demand for bulk carriers is less elastic. As the impact of past subsidies accumulates over time through the slow increase in the world fleet, the price drop became more pronounced post 2009 and reached 16.8% for bulk carriers, 14.8% for tankers, and 4.2% for containerships. Lower ship prices benefited world shipowners by RMB 290 billion, though only a small proportion of these gains accrues to Chinese shipowners as they account for a small fraction of the world fleet.[37]

Figure 6 illustrates the striking effect of subsidies on investment, which skyrocketed post 2006.

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[35]While entry subsidies are large in magnitude, they are consistent with a back-of-the-envelope calculation: entry subsidies induced the entry of 80 additional firms and each firm is worth a few billion RMB.

[36]Gross profit equals to revenue minus production costs. Net profit equals to gross profit plus the scrap value upon exiting, minus the costs of investment and entry. We discuss changes in long-term net profit in detail in Section 6.2.

[37]According to Clarkson World Shipyard Monitor, orders by Chinese shipowners have been growing but still account for under 10% of world orders in 2010-2013.

Total investment during 2006-2013 is RMB 80 billion with subsidies, compared to RMB 33 billion without subsidies. Figure 7 compares the number of Chinese firms by year with and without subsidies. Government support more than doubled the entry rate: 143 firms enter with subsidies vs. 64 without subsidies from 2006 to 2013. It also depressed exit (38 firms exit vs. 43).

Finally, the policy led to increased fragmentation. Entry subsidies induce entry of small inefficient firms. Production and investment subsidies boost firms' variable profit and retain unprofitable firms that should have exited. China's domestic Herfindahl-Hirschman index (HHI) plummeted from 1,200 in 2004 to less than 500 in 2013 with a significantly lower 4-firm concentration ratio (Figure D2 in the Appendix). Despite a sizable increase in China's overall production, capacity utilization was much lower, particularly when demand was low post 2009. If China had not subsidized the shipbuilding industry, the ratio of production to capital (which proxies for capacity utilization) would have been 19% higher during the 2009-2013 recession.

## 6.2  Long-term Performance of Policy Instruments

In this section, we turn to policy design. We assess the long-term performance of different policy instruments and search for general lessons that can be applied in other contexts. Since China's domestic consumer surplus is modest compared to the industry profit as discussed earlier, we focus on industry outcomes, such as output and profits, in our discussion below.[38]

We carry out five counterfactual exercises with different subsidies in place: all subsidies (as in the data), only production subsidies, only investment subsidies, only entry subsidies, and no subsidies. When simulating the industry beyond 2013, we assume that the 2013 policy environment is propagated to the end of our simulation period unless noted otherwise. For example, in the scenario with all subsidies, entry subsidies run from 2006 to 2008, whereas production and investment subsidies run from 2006 to the end.

The results are summarized in Table 5, which reports the discounted sums of long-term industry revenue and profit for Chinese shipyards, as well as the magnitude of different subsidies. The last two rows, "ΔRevenue/Subsidy" and "ΔNet Profit/Subsidy", constitute different measures of policy effectiveness. "ΔRevenue" is the revenue difference between the scenario with subsidies and the scenario without subsidies. The ratio between increased revenue and subsidy cost reflects a policy's effectiveness on promoting industry revenue. This is of interest, as China's official government documents explicitly state production targets for the domestic shipbuilding industry. "ΔNet Profit" is the difference in net profit which equals revenue plus the scrap value upon exiting, minus the costs of production, investment, and entry. "ΔNet Profit/Subsidy" measures the gross rate of return. A rate lower than 100% indicates that the cost of subsidies exceeds the net benefits to the domestic

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[38]Incorporating benefits in consumer surplus enjoyed by Chinese shipowners increases the gross rate of return from 18% to 24%.

industry.[39]

**Comparison of Different Policy Instruments**    When all subsidies are in place, the policy mix is highly ineffective, as reflected by the rate of return being merely 18%. When each policy is in place in isolation, the return is 50% for production subsidies, 74% for investment subsidies, and 32% for entry subsidies, respectively. We thus find that entry subsidies are substantially less effective than production and investment subsidies (more on that below). In addition, the distortions induced by multiple subsidies are convex: i.e. the combination of all policies yields a considerably lower return compared to each policy in isolation. Entry subsidies lower the entry threshold and thus attract inefficient entrants. With the introduction of production and investment subsidies, the number of firms in operation is further inflated due to subsidized revenue. This drives down the rate of return and makes the subsidies more distortionary in per-dollar terms.

An important factor contributing to the low returns are fixed costs. Firms incur fixed costs to stay in business even when they receive no orders from buyers. In volatile industries with cycles of booms and busts, this tends to be a common occurrence: firms are willing to suffer temporary losses and stay idle in expectation of higher demand in the future (hysterisis). If fixed costs were zero, the rate of return on subsidies would increase from 18% to 25%.

We now turn to the performance of each type of subsidy in isolation. If industry revenue is the object of interest, both production and investment subsidies are effective. A one RMB increase in either subsidy raises the industry's revenue by RMB 1.5. This might justify the popularity of these subsidies in China, since quantity and revenue targets are often linked to local officials' promotions (Jin et al., 2005). Investment subsidies appear less distortionary than production subsidies (74% vs. 50%). Investment subsidies lead to a higher level of capital formation and facilitate long-term industry growth, while production subsidies have a more immediate impact on output.[40]

Entry subsidies are the least effective policy instrument among the three by a large margin. They predominantly attract small and high-cost firms that would not find it profitable to enter in the absence of subsidies. The large number of additional entrants contributes little to industry profits, while it exacerbates excess supply and reduces ship prices. In contrast, the take-up rate for production and investment subsidies is much higher among firms that are more efficient, receive more orders (higher backlogs), and are more likely to invest. For example, 82% of production subsidies and 68% of investment subsidies is allocated to firms that are more efficient than the median firm, whereas only 49% of entry subsidies goes to more efficient firms.[41]    In addition,

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[39]The discussion below does not take into consideration the cost to finance these subsidies. Estimates from Ballard et al. (1985) suggest that collecting one dollar of government revenue costs 17 to 56 cents in the U.S. Including the cost to finance subsidies will further drive down the rates of return.

[40]We carry out a more systematic comparison of production and investment subsidies in the Appendix (Table D13).

[41]Appendix D.4 uses a simple static model to illustrate that the rate of return is higher when taken up by efficient firms. Firms in our empirical analysis make four decisions each period: entry, production, investment, and exit. Compared

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production and investment subsidies increase backlogs and capital stocks that lead to economies of scale and drive down both current and future production costs.

**Business Cycles and Industrial Policy**   Like many other manufacturing industries, cycles of booms and busts are a fundamental feature of shipbuilding. The macro and public finance literature that explores optimal fiscal policies over the business cycle generally recommends counter-cyclical fiscal policies, in order to smooth out intertemporal consumption (Barro, 1979), reduce the efficiency costs of business cycle fluctuations (Gali et al., 2007), and increase long-term investment by lowering volatility (Aghion et al., 2014). It is less well-understood, however, how industrial policy should be designed in the presence of industry fluctuations.

To explore whether the effectiveness of subsidies varies over the business cycle, we carry out two counterfactual simulations. The first simulation subsidizes production and investment during the 2006-08 boom, while the second simulation subsidizes production and investment during the 2009-13 bust. All subsidies are discontinued afterwards. The subsidy rates are calibrated so that government spending is identical in both scenarios.

Strikingly, subsidizing firms during the boom leads to a net return of only 38%, whereas subsidizing firms during the downturn leads to a much higher return of 70%, as shown in Table 6. What explains this large difference?

There are two main contributing factors: convex production and investment costs, and firm composition. In booming periods, the industry is operating close to full capacity. Further expansion is costly and entails utilization of high-cost resources. Firms that are already producing and investing may choose to engage in more rapid expansion than is optimal, incurring large adjustment costs. During a bust, on the other hand, the industry operates well below capacity and many production facilities remain idle. Subsidies mobilize underutilized facilities, resulting in smaller distortions. The second contributing factor is the changing firm composition over the business cycle. Subsidies during a boom attract a higher fraction of inefficient firms, which pushes down the rate of return. As an illustration, Figure 8 plots the average marginal cost index over time for both scenarios. Marginal costs are higher when subsidies are distributed during the boom than during the bust, as expected.

Despite the benefits of a counter-cyclical policy, the actual policy mix was overwhelmingly pro-cyclical: 90% of total subsidies was handed out between 2006 and 2008 vs. 10% between 2009 and 2013. This echoes a more general finding in the literature showing that developing countries typically use pro-cyclical fiscal policies (Frankel et al., 2014), due to budget constraints, political considerations, etc. (Tornell and Lane, 1999; Barseghyan et al., 2013).

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to efficient firms, inefficient firms are more likely to be distorted in all these four margins with subsidies. Efficient firms also enjoy considerable economies of scale as a result of larger backlogs and capital stocks relative to inefficient firms, which further widens the wedge in efficiency.

## 6.3 Consolidation Policies

To facilitate consolidation and create large firms that can compete against international conglomerates, China implemented *Shipbuilding Industry Standard and Conditions* in 2013 and periodically announces a list of firms that meet the industry standard, the so called "White List". This section evaluates whether and to what extent the consolidation policy improves the return of subsidies, as well as the government's choices of firms on the White List.

**Gains from Targeting**   The first official White List consisted of 56 firms.[42] In our counterfactual exercise, we rank firms based on their expected variable profits ($E[\pi_{jt}]$) in 2013, select 56 firms with the highest profitability to form the "optimal White List," and simulate the industry from 2014 to 2050. These firms receive production and investment subsidies, while other firms receive no subsidies post 2013. We compare this policy to the one that subsidizes all firms after 2013, as well as the scenario with no subsidies.

As shown in Table D14 in the Appendix, directing subsidies towards the best set of firms (the optimal White List) generates *considerable* gains. The net rate of return for targeted production and investment subsidies is 71%, whereas the return is 37% when all firms are subsidized. This pattern holds across both measures of policy effectiveness (revenue and net profit), due to several reasons. First, subsidizing all firms encourages sub-optimal entry, while the White List policy only subsidizes existing firms and does not distort entry. Second, firms on the White List are more productive and less prone to sub-optimal decisions than the average firm, both of which lead to less distortion.

**China's White List**   While subsidies are less distortionary when targeted towards efficient firms, it is unclear a priori whether the government chose the right set of firms. Information asymmetries and regulatory capture might bias the process in favor of interest groups or "sunset sectors" (Lane, 2019).

To examine the performance of China's actual White List, we discontinue all subsidies post 2013 and examine post-2013 profit for firms on the actual White List and firms on our optimal White List as constructed above. Note that our selection criterion is short-run profitability. Thus this is a weak test: if the government chose firms with the highest long-term profitability, then their selection should do at least as well as the set of firms we choose.

As shown in Figure D3 in the Appendix, industry profits are lower with the actual White List (the dashed blue line) than our optimal White List (the solid red line). The difference in industry profits and revenue in the long run (the discounted sum from 2014 to 2050) is 12% and 8%. Out

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[42]Four out of sixty firms on the 2014 official White List cannot be matched to our datasets. Hence we focus on the remaining fifty-six firms.

of the 56 firms chosen by the government, only 31 firms appear in our White List. There appears a bias in favor of SOEs: 65% of firms selected by the government are SOEs, while 55% of our selected firms are SOEs.

**Summary**  Our results shed light on how industrial policy should be carried out. The literature often points to the wide divergence between East Asia, where industrial policy is regarded as successful, and Latin America, where the import-substitution policies were less effective and abandoned in the 1980s. In East Asian countries, such as Japan and Taiwan, policy support was conditioned on performance with non-performing firms penalized by the withdrawal of support. In contrast, the policies implemented in Latin America did not have effective mechanisms to weed out non-performing beneficiaries (Rodrik (2009)).[43]

Our analysis illustrates that similar mechanisms are at work in China's modern-day industrial policy in the shipbuilding industry. The policy's return was low in earlier years when output expansion was primarily fueled by the entry of inefficient firms, but increased considerably over time as the government shifted support to more efficient firms and used 'performance-based' criteria (the White List) to channel subsidies. This kind of targeted policy design is substantially more successful than open-ended policies that subsidize all firms.

# 7   Rationales for Industrial Policy

We now assess traditional arguments in favor of industrial policy and evaluate the extent to which the policy in the shipbuilding industry is effective in achieving these objectives. In the presence of market power, there are in principle strategic trade benefits from subsidizing industries that compete with foreign firms (Dixit, 1984; Krugman, 1986; Eaton and Grossman, 1986; Brander, 1995). For these considerations to be relevant, a necessary condition is the existence of substantial market power and thus 'rent on the table' that when shifted from foreign to domestic firms outweighs the cost of subsidies. To investigate this, we carry out a counterfactual simulation where firms are price takers in the product market, which eliminates any strategic trade motives behind industrial policy. As Table D15 in the Appendix illustrates, the overall return of subsidies with perfect competition is lower than our baseline estimates, but the gap is modest (14% vs. 18%). The difference is mainly driven by production subsidies becoming less effective when firms are price takers (their return drops from 50% to 38%). These results suggest that market power considerations in the shipbuilding industry cannot justify the strategic trade arguments, consistent with results in Section 5.1 that markups are low.

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[43]Lack of policy evaluations in Latin American countries is a significant hindrance to this debate (Peres, 2013).

Another justification for subsidies is the presence of positive externalities (such as industry-wide learning-by-doing), in which case each firm produces less than socially optimal. As discussed in Section 5.1, there is no evidence of significant spillover effects in this industry, corroborating industry reports that much of the production by Chinese shipyards occurs in product sectors with mature technologies, where the scope for learning is limited.[44]

Industrial policies are often argued on the ground of labor market consequences: subsidies could have welfare benefits if they increase employment or offset distortions that lead to depressed employment. Even in the grand scheme of things, total employment in shipbuilding and related industries (ship repairs, marine equipment, etc.) accounts for less than 0.1% of national employment, suggesting that any potential labor market benefits would be modest.

There are potential spillovers to upstream sectors, as intermediate inputs from other sectors account for 63% of the value of ships produced and steel alone contributes to 13%. One might argue that shipbuilding subsidies are partially designed to boost demand for steel, a strategic sector that has been subject to many policy interventions. However, steel used in shipbuilding accounts for less than 1.5% of total steel produced (China's 2012 Input-Output Table). Similarly for other primary inputs used in ship production. Looking at downstream sectors, three-quarters of the output from this industry is used for final consumption. However, more than 80% of ships produced is exported, which limits the share of benefits from subsidies that is captured domestically.

One rationale that might help justify China's shipbuilding subsidies relates to the role of ships in international trade: a larger worldwide fleet reduces transportation costs (freight rates). As China is the world's biggest exporter and the (close) second largest importer, transport cost reductions can lead to substantial increases in trade volume. If Chinese exporters and importers face trade barriers or other frictions, the associated welfare considerations could justify subsidizing the shipbuilding sector.

To evaluate this argument, we carry out a back-of-the-envelope calculation of the subsidies' impact on China's trade volume in Appendix D.3. To do so, we first assess changes in freight rates resulting from the increased global fleet. We find that subsidies reduced bulk carrier freight rates by 6.1% and containership freight rates by 2% between 2006 and 2013. Using trade elasticities with respect to transport prices from the literature (Brancaccio et al., 2020; Jeon, 2018), we estimate that the industrial policy raised China's annual trade volume by 4.9% ($144 bn) between 2006 and 2013. The effect is sizeable compared to other major trade-related policies in recent decades. For instance, Ianchovichina and Martin (2004) estimate that China's accession to WTO led to a 40% increase in its trade volume. The increase in trade volume was also large relative to the size of the subsidies (which averaged $11.3 bn annually between 2006 and 2013); however, calculating the

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[44]There might be technological 'catching-up' and learning among Chinese shipyards for producing the latest generation ships (e.g. large containerships or LNG's), where most of the patents and 'know-how' are possessed by Japanese and South Korean firms. Unfortunately, there are few orders of these ships and we cannot directly test this.

welfare gains associated with the increased trade volume falls beyond the scope of this paper.[45]

Finally, other considerations, including national security and military implications, as well as the desire to be the world leader in heavy-manufacturing industries (as stated in various government documents), might also be relevant in motivating these policies. Regardless of the motivation, our analysis evaluates various policy design considerations and the relative efficacy of different instruments that can be used as guidance for future polices.

# 8 Conclusion

Industrial policy, which until recently was considered old-fashioned, has reemerged in many regions around the world, including the EU and the US. Despite the strong interest from policy makers and economists alike, few studies have used firm-level data to examine the relative efficacy of different designs, as well as the long term implications of industrial policies.

We conduct such an analysis of China's industrial policy in the shipbuilding industry, using firm-level data and a dynamic model of firms' entry and exit, production and investment decisions. While subsidies significantly boosted China's world market share and buttressed China's ascent into global influence, they also exacerbated industry fragmentation and led to increased capacity idleness. The policy initially exhibited a low rate of return, though things improved as the government shifted away from subsidizing all firms and adopted policies that better targeted efficient firms. An important insight from the setup we study is that firm heterogeneity, the nature of business cycles, firms' cost structure, and the choice of policy instruments could all significantly alter policy efficacy and are important considerations for a more effective policy design.

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[45]To do so would require overlaying our framework within a general equilibrium trade model.

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**Table 1:** Summary Statistics

| Variable | Obs | Mean | S.D. | Min | Max |
|---|---|---|---|---|---|
| **All Observations (including zero orders)** | | | | | |
| Bulk carrier orders (1000 CGT) | 10,101 | 17.1 | 51.9 | 0.0 | 968.2 |
| Tanker orders (1000 CGT) | 10,583 | 9.6 | 46.2 | 0.0 | 1119.0 |
| Containership orders (1000 CGT) | 4,813 | 18.9 | 93.9 | 0.0 | 1644.1 |
| **Observations With Positive Orders** | | | | | |
| Bulk carrier orders (1000 CGT) | 2,316 | 74.6 | 86.5 | 3.9 | 968.2 |
| Tanker orders (1000 CGT) | 1,436 | 70.4 | 107.1 | 0.05 | 1,119.0 |
| Containership orders (1000 CGT) | 625 | 145.3 | 222.7 | 2.3 | 1,644.1 |
| **Other Variables** | | | | | |
| Bulk carrier backlog (1000 CGT) | 10,101 | 171.4 | 329.3 | 0.0 | 2830.5 |
| Tanker backlog (1000 CGT) | 10,583 | 98.5 | 315.1 | 0.0 | 3840.8 |
| Containership backlog (1000 CGT) | 4,813 | 206.6 | 670.5 | 0.0 | 7362.8 |
| Investment (mill RMB) | 4,386 | 18.5 | 88.9 | -240.5 | 1,770.7 |
| Capital (mill RMB) | 6,157 | 392.0 | 806.9 | 0.3 | 8,203.3 |

*Note:* Summary statistics for shipyards in China, Japan, and South Korea. Investment and capital are limited to Chinese yards.

**Table 2:** Cost Function Estimates

| Type-specific | Bulk carrier | | Tanker | | Containership | |
|---|---|---|---|---|---|---|
| | Coefficient | T-stat | Coefficient | T-stat | Coefficient | T-stat |
| $\beta_q$ | 7.29 | 7.59 | 14.13 | 5.10 | 10.58 | 5.01 |
| $\sigma_\omega$ | 9.58 | 8.93 | 16.27 | 6.91 | 13.77 | 5.14 |
| Constant (1000 RMB/CGT) | 20.37 | 14.05 | 39.71 | 8.78 | 34.92 | 7.27 |
| Steel Price (1000 RMB/Ton) | 1.68 | 6.85 | 1.14 | 2.83 | 0.66 | 1.50 |
| Capital (bill RMB) | -2.67 | -2.85 | -2.89 | -1.74 | -2.44 | -1.93 |
| Capital$^2$ | 0.20 | 0.80 | 0.07 | 0.24 | 0.06 | 0.28 |
| Backlog | -1.80 | -5.03 | -5.02 | -4.97 | -3.30 | -3.19 |
| Backlog$^2$ | 0.08 | 3.94 | 0.26 | 3.44 | 0.20 | 1.94 |
| Backlog of Other Types | 0.13 | 0.86 | 0.38 | 1.57 | 0.53 | 2.61 |
| **Common** | | | | | | |
| 2006-2008 | -2.10 | -3.01 | | | | |
| 2009+ | -1.22 | -1.78 | | | | |
| Large firms | -4.32 | -6.54 | | | | |
| Jiangsu | -2.96 | -4.61 | | | | |
| Zhejiang | -1.62 | -2.80 | | | | |
| Liaoning | -2.10 | -2.01 | | | | |
| CSSC/CSIC | -0.86 | -1.17 | | | | |
| Private | 0.16 | 0.30 | | | | |
| Foreign JV | -0.86 | -1.41 | | | | |
| Age | 0.21 | 3.22 | | | | |
| N | 4886 | | 4977 | | 2504 | |

*Note:* Standard errors bootstrapped using 500 bootstrap samples.

**Table 3:** Estimates of Investment Cost and Scrap Value Parameters

|  | Coeff. | T-stat |
|---|---|---|
| $\sigma_\phi$ | 0.98 | 12.32 |
| $c_1$ | 1.00 | |
| $c_2$ | 29.54 | 14.49 |
| $c_3$ | 2.07 | 9.67 |
| $c4_{2006-08}$ | -0.27 | -1.70 |
| $c4_{2009+}$ | -0.46 | -3.27 |
| $N$ | 4286 | |

*Note:* Standard errors bootstrapped using 200 block bootstrap samples.

**Table 4:** Entry Cost Distribution (Mean), Billion RMB

|  | $\kappa_{pre}$ | $\kappa_{post,06}$ | % of pre costs | $\kappa_{post,09+}$ | % of pre costs |
|---|---|---|---|---|---|
| Jiangsu | 86 | 31 | 36% | 91 | 106% |
| Zhejiang | 133 | 54 | 41% | 264 | 199% |
| Liaoning | 82 | 40 | 49% | - | - |
| Other | 38 | 15 | 38% | 61 | 160% |

*Note:* $\kappa_{pre}$: mean of the entry cost distribution prior to 2004 for Zhejiang, and prior to 2006 for Jiangsu, Liaoning and Other regions. $\kappa_{post,06}$: mean of the entry cost distribution between 2004 and 2008 for Zhejiang, between 2006 and 2008 for Jiangsu, Liaoning and Other regions. $\kappa_{post,09+}$: mean of the entry cost distribution from 2009 onwards. The number of potential entrants, $\bar{N}$, is assumed to equal twice the maximum number of potential entrants ever observed in a region.

**Table 5:** Comparison of Policy Instruments

| | All subsidies | Production subsidy | Investment subsidy | Entry subsidy | Remove all subsidies |
|---|---|---|---|---|---|
| Lifetime Revenue 2006- | 2361 | 2154 | 1873 | 1961 | 1810 |
| Lifetime Net Profit 2006- | 1085 | 1061 | 981 | 1023 | 950 |
| Production Subsidy | 262 | 225 | 0 | 0 | 0 |
| Investment Subsidy | 77 | 0 | 42 | 0 | 0 |
| Entry Subsidy | 431 | 0 | 0 | 231 | 0 |
| Δ Revenue/Subsidy | 72% | 153% | 153% | 66% | |
| Δ Net Profit/Subsidy | 18% | 50% | 74% | 32% | |

*Note:* Revenue, net profit, and subsidy are discounted sums for Chinese shipyards from 2006 to 2050, averaged across simulations. For example, "Lifetime Revenue (Net Profit) 2006-" refers to the discounted sum of revenue (net profit) earned by Chinese firms from 2006 to 2050. "Net Profit": Revenue-Production Cost-Investment Cost+Scrap Value-Entry Cost. "ΔRevenue/Subsidy": the discounted sum of revenue in the column scenario minus the discounted sum of revenue with no subsidies, divided by the discounted sum of subsidies. "ΔNet Profit/Subsidy" equals the discounted sum of net profits in the column scenario minus the discounted sum of net profits with no subsidies, divided by the discounted sum of subsidies. Government policy in 2013 carries onward till the end of the simulation period (2050) in all columns. In Column "All subsidies", firms receive production and investment subsidy (as estimated in the baseline) in all periods, but entry subsidy terminates in 2009. In Column "Production subsidy", we maintain the same production subsidy as in the baseline, but shut down entry and investment subsidies. Columns "Investment subsidy" and "Entry subsidy" are similar.

**Table 6:** Pro-cyclical vs. Counter-cyclical Industrial Policy

| | Subsidize during boom | Subsidize during recession |
|---|---|---|
| Lifetime Revenue 2006- | 1880 | 1872 |
| Lifetime Profits 2006- | 961 | 975 |
| Production Subsidy | 29 | 29 |
| Investment Subsidy | 13 | 14 |
| Δ Revenue/Subsidy | 189% | 168% |
| Δ Net Profit/Subsidy | 38% | 70% |

*Note:* In Column "Subsidize during boom," the government only subsidizes production and investment during the boom of 2006-08. In Column "Subsidize during recession," the government subsidizes during the recession of 2009-13, but offers no subsidy before 2009 or after 2013. The subsidy rates during the 2006-08 boom are adjusted downwards to match the amount handed out during the recession. No entry subsidy is offered in either scenario. All rows are defined as in Table 5.

**Figure 1:** Output and Industry Concentration in Selected Industries

**Total output: Bill RMB**
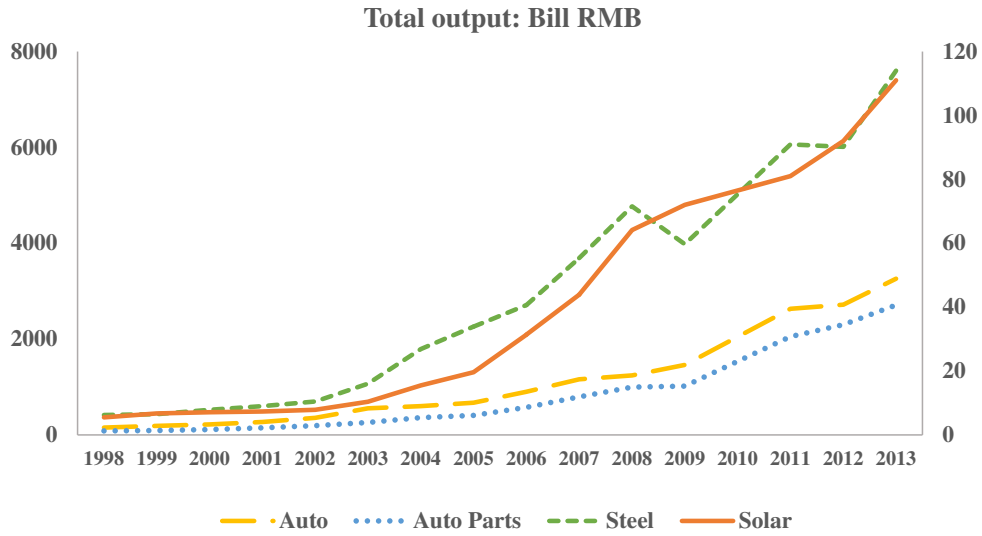


*Source*: China's National Bureau of Statistics. The output of the auto, auto parts and steel industries are plotted on the left vertical axis, while the output of the solar industry is plotted on the right vertical axis.

**Output HHI**
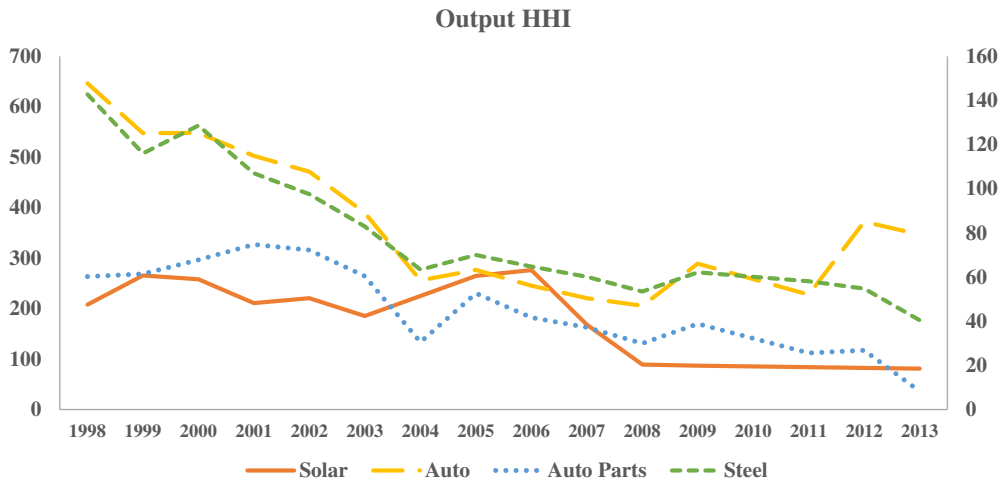


*Source*: China's National Bureau of Statistics. The HHI of the auto and solar industries are plotted on the left vertical axis, while the HHI of the auto parts and steel industries are plotted on the right vertical axis.

**Figure 2:** China's Market Share Expansion
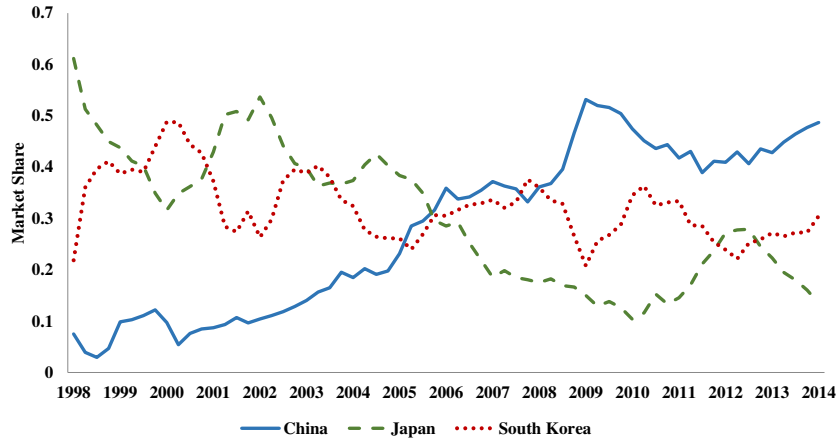


*Source*: Clarkson Research. Market shares computed from quarterly ship orders.

**Figure 3:** Entry of New Shipyards
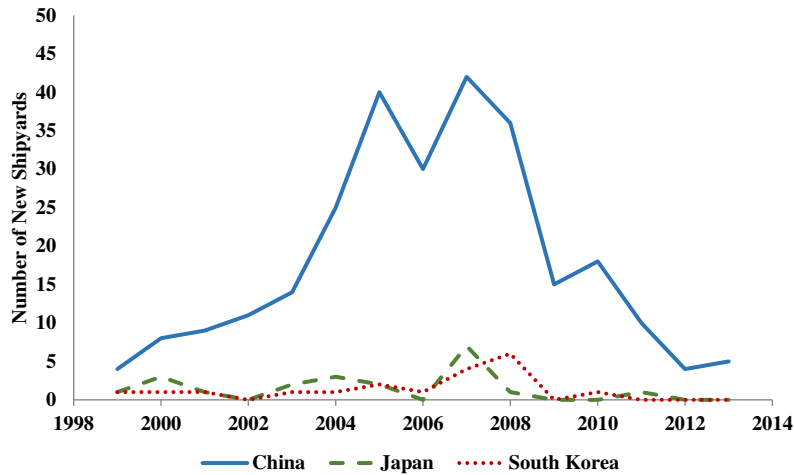


*Source*: Clarksons Research. Number of new shipyards each year.

**Figure 4:** Investment by Chinese Shipyards
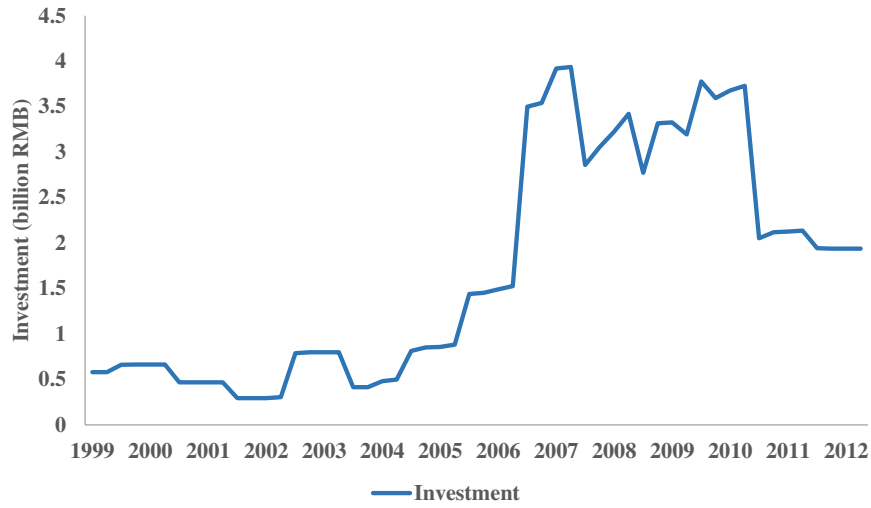


*Source*: China's National Bureau of Statistics. Industry aggregate quarterly investment.
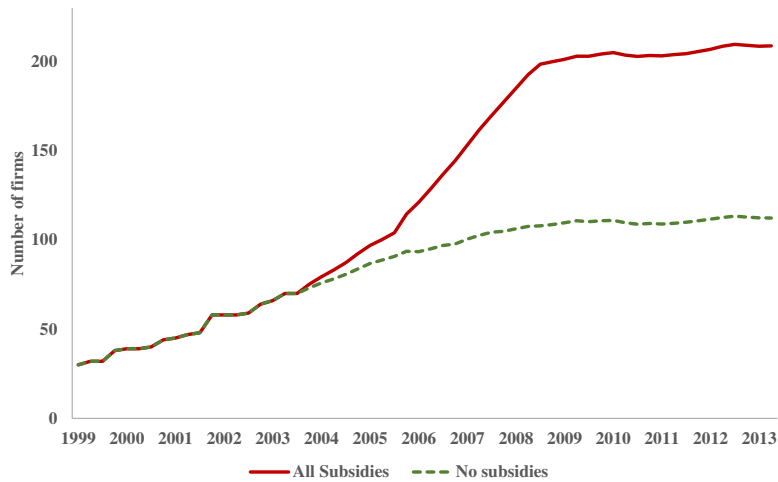
**Figure 5:** Ship Prices
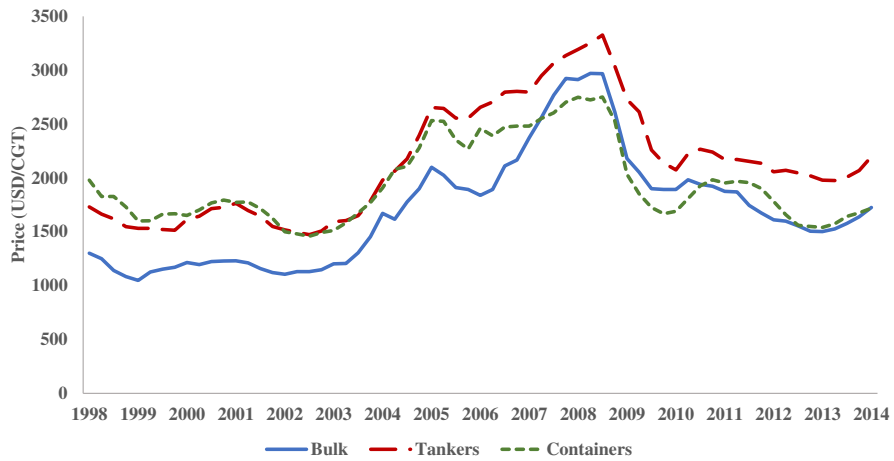


*Source*: Clarksons Research. Average price in USD/CGT.

**Figure 6:** Investment, with/without Subsidies
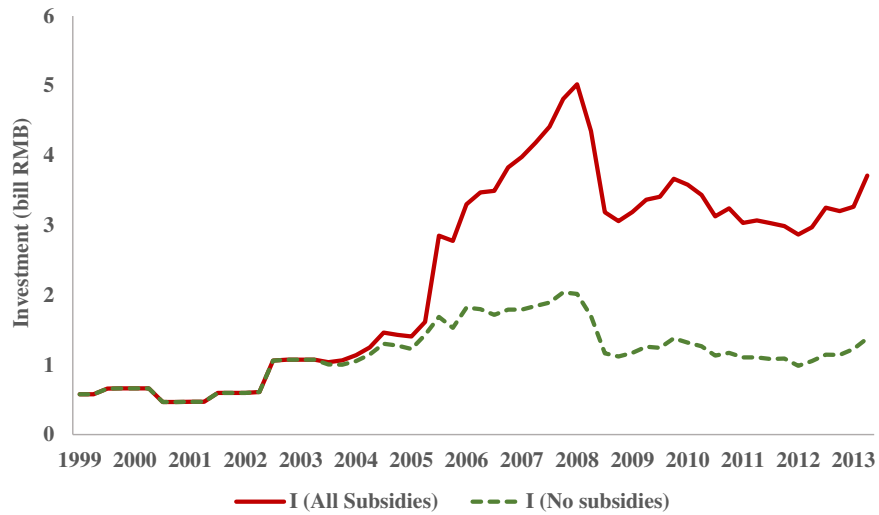


*Note*: Total investment in the case of all subsidies as observed in the data (solid red line) and counterfactual investment with no subsidies (dashed green line).

**Figure 7:** Number of Firms, With And Without Subsidies



*Note*: Total number of firms in the case of all subsidies as observed in the data (solid red line) and counterfactual number of firms with no subsidies (dashed green line).

**Figure 8:** Marginal Cost Index With Subsidies During the Boom vs. Subsidies During the Bust
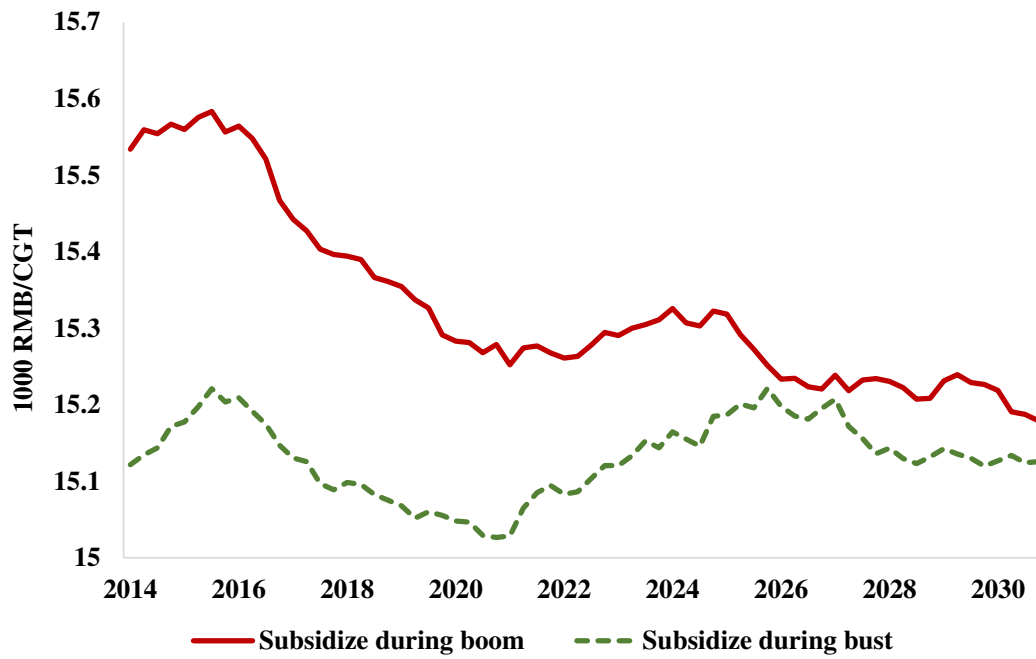


*Note*: The marginal cost index is defined as the portion of marginal cost determined by the firm's capital stock, backlog and other firm-level characteristics (such as age, size and ownership status). The above graph plots the average marginal cost index when subsidies are distributed during a boom (solid red line) vs. during a bust (dashed green line).

# Online Appendix for "China's Industrial Policy: an Empirical Evaluation"

Appendix A provides some additional background on China's industrial policy for the shipbuilding sector. Appendix B discusses additional steps of the estimation procedure, including the calibration of the fixed production cost, the estimation of investment policy functions and the value function approximation. Appendix C describes estimation results not included in the main text, including demand estimates, production cost estimates, robustness analysis, first-stage policy function estimates, estimates of the state transition process, and overall model fit. Finally, Appendix D describes how we implement the counterfactual analyses and presents some additional results relating to the counterfactual simulations.

# A    Additional Background on Industrial Policies in China

Table A1 documents major national policies issued that were relevant for the shipbuilding sector. The most important initiative was the 11th National Five-Year Economic Plan (2006-2010) which dubbed shipbuilding as a strategic industry. The central government also issued a series of policy documents with specific production and capacity quotas. For example, as part of the 2006 *Medium and Long Term Development Plan of the Shipbuilding Industry*, the government set an annual production goal of 15 million deadweight tons (DWT) to be achieved by 2010, and 22 million DWT by 2015.

In the aftermath of the 2008 economic crisis that led to a sharp decline in global ship prices, the government promoted consolidation policies. The *Plan on Adjusting and Revitalizing the Shipbuilding Industry*, implemented in 2009, resulted in an immediate moratorium on entry with increased investment subsidies to existing firms. The most crucial policy for achieving consolidation objectives was the *Shipbuilding Industry Standard and Conditions* (2013), which instructed the government to periodically announce a list of selected firms that "meet the industry standard" and thus receive priority in subsidies and bank financing.[46] The so called "White List" included sixty firms in 2014 upon announcement.

The 12th Five-Year Plan for the Development of Shipbuilding Industry (2011-2015) set a number of targets for achieving increased industrial concentration, including 70% of the country's shipbuilding to be carried out by the top ten domestic firms, and at least five Chinese firms to be included in the world's top ten largest firms.

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[46]In practice, favorable financing terms and capital market access are often limited to firms on the White List post 2014.

**Table A1:** Shipbuilding National Industrial Policies

| Year | Shipbuilding National Industrial Policies | Plan Period |
|------|-------------------------------------------|-------------|
| 2003 | National Marine Economic Development Plan | 2001-2010 |
| 2006 | The 11th Five-Year Plan for National Economic and Social Development | 2006-2010 |
| 2006 | The Medium and Long Term Development Plan of Shipbuilding Industry | 2006-2015 |
| 2007 | The 11th Five-Year Plan for the Development of Shipbuilding Industry | 2006-2010 |
| 2007 | The 11th Five-Year Plan for the Development of Shipbuilding Technology | 2006-2010 |
| 2007 | 11th Five-Year Plan for the Development of Ship Equipment Industry | 2006-2010 |
| 2007 | Guideline for Comprehensive Establishment of Modern Shipbuilding (2006-2010) | 2006-2010 |
| 2007 | Shipbuilding Operation Standards | 2007- |
| 2009 | Plan on the Adjusting and Revitalizing the Shipbuilding Industry | 2009-2011 |
| 2010 | The 12th Five-Year Plan for National Economic and Social Development | 2011-2015 |
| 2012 | The 12th Five-Year Plan for the Development of the Shipbuilding Industry | 2011-2015 |
| 2013 | Plan on Accelerating Structural Adjustment and Promoting Transformation and Upgrading of the Shipbuilding Industry | 2013-2015 |
| 2013 | Shipbuilding Industry Standard and Conditions | 2013- |

# B  Estimation Details

## B.1  Calibrating the Fixed Cost

The National Bureau of Statistics (NBS) data include information on operating costs, which allows us to calibrate the fixed cost of production. A firm's total production cost is equal to:

$$C_{jt} = c_0 + C(q_{jt})$$

where $C(q_{jt})$ is the variable cost of taking $q_{it}$ orders that is estimated from the Clarkson data, as discussed in Section 4.1.

Some shipyards both produce ships and carry out repairs. We follow the standard assumption in the production literature that the cost share of ship production is the same as its revenue share and obtain the accounting operating cost of ship production as:

$$\hat{C}_{jt} = C_{jt}^{NBS} * (R_j^{Clarkson}/R_j^{NBS})$$

where $C_{jt}^{NBS}$ denotes the accounting operating costs, which include the costs of both ship production and ship repairs. $R_j^{Clarkson} = \sum_t R_j^{Clarkson}$ denotes shipyard $j$'s lifetime revenue from building new ships that is reported in Clarkson, and $R_j^{NBS} = \sum_t R_{jt}^{NBS}$ denotes its lifetime revenue in NBS.

We use two approaches to estimate the fixed cost $c_0$; both deliver similar results. The first

approach uses the quarters with zero production (so that the variable production cost is zero) and the accounting costs $\hat{C}_{jt}$ (after adjusting for repairs) in the same periods to infer the fixed cost. The second approach uses the difference between a shipyard's average operating costs and the average estimated variable cost of production:

$$c_0 = \frac{1}{T} \sum_t [\hat{C}_{jt} - C(q_{jt})]$$

## B.2 Estimating the Investment Policy Function

Our baseline estimator of the investment policy function does not account for the fact that investment is non-negative. To address this issue, we perform two robustness checks. The first is a Tobit model that assumes $h_2(v_{jt})$ is normally distributed. The second approach assumes that the median of $h_2(v_{jt})$ is zero and estimates $h_1(s_{jt})$ using the Censored Least Absolute Deviation estimator (CLAD) that was first proposed by Powell (1984) and later extended by Chernozhukov and Hong (2002). In this note, we describe how we implement the second approach based on the CLAD estimator.

The investment policy function is assumed to be additive in the observed state variables and the unobserved investment cost shock:

$$I_{jt}^* = h_1(s_{jt}) + h_2(v_{jt})$$
$$I_{jt} = max(I_{jt}^*, 0)$$

where the second equation states explicitly that investment is non-negative. Powell (1984) showed that we can recover $h_1(s)$ through the Censored Least Absolute Deviations estimator (CLAD) while normalizing the median of $h_2(v_{jt})$ to 0. Once we obtain the CLAD estimate $\hat{h}_1(s)$, we treat $I_{jt} - \hat{h}_1(s_{jt})$ as data with the goal of estimating $h_2(v_{jt})$ with the truncated data:

$$\tilde{i}_{jt} \equiv I_{jt} - \hat{h}_1(s_{jt}) = max(h_2(v_{jt}), -\hat{h}_1(s_{jt})), \text{ or}$$
$$\tilde{i}_{jt} = max(h_2(v_{jt}), \bar{h}_{jt})$$

where in the second equation we use $\bar{h}_{jt}$ to denote $-\hat{h}_1(s_{jt})$.

Note that the level of truncation $\bar{h}_{jt}$ varies across observations. We use the observed probability of truncation (zero or negative investment) to back out the level of the investment shock that induces truncation, conditioning on the observed state variables (let $\Phi$ denote the CDF of a standard

3

normal):

$$Pr(\tilde{i}_{jt} > \bar{h}_{jt} | \bar{h}_{jt}) = Pr(h_2(v_{jt}) > \bar{h}_{jt}) = Pr(v_{jt} < h_2^{-1}(\bar{h}_{jt})) = Pr(v_{jt} < \tilde{v}_{jt})$$
$$= \Phi(\bar{v}_{jt}), \text{or}$$
$$\bar{v}_{jt} = \Phi^{-1}\big(Pr(\tilde{i}_{jt} > \bar{h}_{jt} | \bar{h}_{jt})\big)$$

where $Pr(\tilde{i}_{jt} > \bar{h}_{jt} | \bar{h}_{jt})$ can be estimated either via kernel methods, or by approximating the cutoff value $\bar{v}(\bar{h}_{jt})$ using a flexible function of $\bar{h}_{jt}$ and carrying out a probit regression.

To estimate $h_2(v_{jt})$, we categorize all the uncensored observations (where $\tilde{i}_{jt} > \bar{h}_{jt}$) into distinct bins. Specifically, suppose the thresholds are $\{\bar{h}_1, \bar{h}_2, ... \bar{h}_{R+1}\}$. Then any uncensored observation $\tilde{i} \in (\bar{h}_r, \bar{h}_{r+1}]$ is placed in bin $r$. We carry out the BBL inversion separately for each bin. In particular, if $i^* = max(h_2(v^*), \bar{h}_{jt})$ for some arbitrary $v^*$, where $i^*$ lies in bin $r$, then the following expression must hold:

$$F(i^* | i^* \in (\bar{h}_r, \bar{h}_{r+1}]) = Pr(\tilde{i} \le i^* | i^* \in (\bar{h}_r, \bar{h}_{r+1}))$$
$$= Pr(v \ge v^* | \bar{v}_{r+1} < v < \bar{v}_r)$$
$$= \frac{\Phi(\bar{v}_r) - \Phi(v^*)}{\Phi(\bar{v}_r) - \Phi(\bar{v}_{r+1})}$$

In other words,

$$i^* = F^{-1}\left( \frac{\Phi(\bar{v}_r) - \Phi(v^*)}{\Phi(\bar{v}_r) - \Phi(\bar{v}_{r+1})} \right) \text{ for } \bar{v}_{r+1} < v^* < \bar{v}_r$$

It is easy to verify that this estimator nests the uncensored example as a special case and allows us to better address censoring by increasing the number of bins. Monte Carlo simulations suggest that a small number of bins (e.g. five) can lead to surprisingly well-behaved estimates with minimal bias in the estimated function $h_2(v)$.

As shown in Section C.3 of the Appendix, Tobit and CLAD deliver similar estimates of the investment policy function as OLS, though OLS outperforms both Tobit and CLAD in terms of the overall sample fitness.

## B.3 Value Function Approximation

As discussed in the main text, we approximate the value function $V(s_{jt})$ via B-spline basis functions $V(s_{jt}) = \sum_{l=1}^{L} \gamma_l^0 u_l(s_{jt})$ and impose the Bellman equation as a constraint when estimating the parameters governing investment costs and scrap value.[47] We now discuss how we approximate the value functions.

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[47]We refer interested readers to supplemental material in Barwick and Pathak (2015) and Kalouptsidi (2018) for Monte Carlo evidence on the performance of value function approximations.

**Constructing Basis Functions**   In our model, firm value functions are in principle a function of a large number of state variables. However, several state variables enter the shipyard's payoff as a single index $s_{jmt}\beta_{sm}$ in the marginal cost of production (B1), including the shipyard's region, ownership, size, age, and backlog.

$$MC_m(q_{jmt}, s_{jmt}, \omega_{jmt}) = \beta_{0m} + s_{jmt}\beta_{sm} + \beta_{qm}q_{jmt} + \omega_{jmt} \tag{B1}$$

As such, instead of keeping track of each state separately, we collapse them into a single-dimensional state using the estimated coefficients:

$$\bar{s}_{jt} = -\sum_m s_{jmt}\beta_{sm}$$

We use $\bar{s}_{jt}$ as a measure of a firm's observed cost efficiency: a higher $\bar{s}_{jt}$ is associated with a lower marginal cost and a higher variable profit. Our approach of collapsing firm-level state variables into a single index is similar in spirit to Hendel and Nevo (2006) and Nevo and Rossi (2008) that use the "inclusive value" to capture the impact of changing product attributes on future profits. We further assume that $\bar{s}_{jt}$ evolves via a simple rule $\bar{s}_{jt+1} = \alpha_0 + \alpha_1\bar{s}_{jt}$, which almost perfectly forecasts $\bar{s}_{jt+1}$ in period $t$ since all but one of the variables in $\bar{s}_{jt}$ are deterministic.

Therefore, the state variables in the dynamic estimation are the capital stock, the price for each ship type, the steel price, and $\bar{s}_{jt}$ (which subsumes the remaining firm characteristics); as well as two policy dummies for the periods 2006-08 and post 2009, respectively. The basis functions are flexible third-order B-splines (i.e. quadratic piecewise polynomials). Given our focus on investment, we use two knots (and have experimented with more knots) in forming the B-splines for capital. The total number of basis functions is 44.

**Estimating Approximating Coefficients**   We search for $\{\gamma_l\}_{l=1}^{L}$ that minimize the violation of the Bellman equation (11) given the dynamic parameters:

$$\{\gamma_l\}_{l=1}^{L} = \arg\min_{\gamma_l} \left\| V(s_{jt};\gamma) - \pi(s_{jt}) - \hat{p}^x(s_{jt})\sigma_\phi - CV(s_{jt};\gamma) \right\|_2 \tag{B2}$$

where $\hat{p}^x(s_{jt})$ and $\hat{i}^*(s_{jt}, v_{jt})$ are the estimated first-stage exit and investment policy functions, respectively, $CV(s_{jt};\gamma) = \mathbb{E}_{v_{jt}}\left\{-C^i(\hat{i}^*(s_{jt}, v_{jt})) + \beta\mathbb{E}[V(s_{jt+1};\gamma)|s_{jt}, \hat{i}_{jt}^*]\right\}$ is the continuation value evaluated at these estimated policy functions, and $\|.\|_2$ is the $L^2$ norm.

Equation (B2) is imposed as a constraint in the estimation of dynamic parameters. Specifically, for each guess of the dynamic parameters, we solve for $\{\gamma_l\}_{l=1}^{L}$ that satisfy equation (B2), and use the estimated $\{\hat{\gamma}_l\}_{l=1}^{L}$ to construct the sample log likelihood in equation (12).

Recovering the approximating coefficients $\gamma$ requires specifying the set of state values on which to evaluate the Bellman constraint. We construct a sample that ensures sufficient variation in each of

the state variables. First, we include all the $N$ states observed in the sample. Second, we randomly draw $N_{add}$ additional states to span the full range of the state variables. The coefficients $\gamma$ are recovered using these $N + N_{add}$ states.[48] This approach is similar to Sweeting (2013).

These additional states are instrumental in getting a good approximation of the value function, for two reasons. First, some states (for example, ship prices and the steel price) are highly correlated in the data, which makes it challenging to separately identify the coefficients on basis functions formed from these state variables if we only use the observed states. Second, some regions of the state space have a limited number of observations. Both of these problems can be mitigated by adding randomly drawn states, which avoids multicollinearity between states and ensures sufficient data points across all regions of the state space.

# C   Additional Estimation Results

## C.1   Demand Estimates

Table C2 reports estimates of the demand curve (9). Given the limited number of observations for each ship type, we restrict the price coefficient post-2006 and the coefficient on backlog to be the same across types in order to improve the precision of the estimates. We use GMM and estimate equation (9) jointly across the three types. Column (1) presents the simplest specification where the only demand shifter is the type-specific freight rate. Column (2) adds type-specific demand shifters. Column (3) further controls for a time trend, while Column (4) allows the time trend to differ before and after 2006. In all specifications, we allow for a different price coefficient before and after 2006 to capture changes in the slope of the demand curve after the introduction of Chinese subsidies. Adding demand shifters improves the fit, though time trends appear to matter little. As such we use Column (2) as our preferred specification.

## C.2   Production Cost Estimates: Robustness

This section carries out a robustness analysis for production cost estimates.

First, we estimate production costs assuming the firms are price-takers rather than Cournot competitors. Table C3 shows that the estimated coefficients remain quantitatively similar. We then explore how our estimates of ship production costs change when we pool data from China, Japan and South Korea. As the capital stock is unobserved for firms in Japan and South Korea, we set these shipyards' capital to zero and add country dummies. The results are illustrated in Table C4. The key coefficients are generally similar to those in the baseline. The subsidy is estimated to be higher in the 2006-08 period but somewhat lower in the 2009+ period.

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[48]In our empirical analysis, $N = 4,286$ and $N_{add} = 80,000$. Using larger values of $N_{add}$ leads to very similar estimates of the approximating coefficients.

**Table C2:** Demand Estimates

| Dependent variable: | (1) Orders | (2) Orders | (3) Orders | (4) Orders |
|---|---|---|---|---|
| Price (bulk carriers) | -2.34*** | -1.67*** | -2.07*** | -2.12*** |
| | (0.77) | (0.64) | (0.69) | (0.75) |
| Price (tankers) | -2.66*** | -1.46* | -1.80** | -1.76** |
| | (0.60) | (0.88) | (0.78) | (0.89) |
| Price (containerships) | -4.85*** | -2.44*** | -3.39*** | -3.39*** |
| | (0.91) | (0.85) | (1.01) | (0.99) |
| Price*Post2006 | 1.34*** | 1.00*** | 1.15*** | 1.34** |
| | (0.18) | (0.14) | (0.15) | (0.55) |
| Backlog (log) | 0.34 | -1.00*** | -0.78** | -0.81** |
| | (0.25) | (0.33) | (0.38) | (0.37) |
| Freight rate (bulk carriers) | 2.84*** | 3.27*** | 3.35*** | 3.33*** |
| | (0.45) | (0.56) | (0.57) | (0.56) |
| Freight rate (tankers) | 4.04*** | 3.24*** | 2.94*** | 2.91*** |
| | (0.70) | (0.68) | (0.65) | (0.65) |
| Freight rate (containerships) | 6.45*** | 4.47*** | 4.69*** | 4.60*** |
| | (0.87) | (0.73) | (0.77) | (0.75) |
| US Wheat price | | -0.12 | -0.10 | -0.12 |
| | | (0.48) | (0.48) | (0.49) |
| Iron ore imports, China | | 2.62*** | 2.93*** | 3.01*** |
| | | (0.90) | (0.89) | (0.92) |
| Middle East refinery production | | 1.37 | 1.84* | 1.66* |
| | | (1.05) | (0.97) | (0.99) |
| World car trade | | 1.32*** | 2.08*** | 2.05*** |
| | | (0.44) | (0.49) | (0.49) |
| Trend | | | -0.026** | -0.020 |
| | | | (0.011) | (0.019) |
| Trend*Post2006 | | | | -0.0026 |
| | | | | (0.0076) |
| $R^2$, bulk carriers | 0.68 | 0.71 | 0.71 | 0.71 |
| $R^2$, tankers | 0.26 | 0.33 | 0.35 | 0.36 |
| $R^2$, containerships | 0.44 | 0.52 | 0.51 | 0.51 |

*Note:* the number of observations equals 64 for bulk carriers and containerships and 61 for tankers. The freight rate is the Baltic Exchange Freight Index for bulk carriers, Baltic Exchange Clean Tanker Index for tankers, and the Containership Timecharter Rate Index for containerships. The demand shifters include the US wheat price and total Chinese iron ore imports for bulk carriers, Middle East refinery production for tankers, and world car trade for containerships. We instrument ship prices using steel production and the steel ship plate price. Parameters are estimated using GMM.

Next, we examine evidence of learning-by-doing by shipyards. First, we evaluate within-firm learning-by-doing by allowing a firm's marginal cost to depend on its cumulative past production. As shown in Table C5, a larger past production leads to higher marginal costs, which is inconsistent with there being within-firm learning-by-doing. Second, we allow a firm's marginal cost to depend on the industry cumulative output, as a crude test of industry-wide learning-by-doing (where firms learn from each other). Without instrumenting for the industry cumulative output, this exercise is likely to over-estimate spillover effects: if there are common unobserved shocks that raise the output of all firms, the model will attribute it to positive spillover effects. Despite this, we find limited evidence for spillover effects, as shown in the third panel of Table C5. Marginal costs increase with the cumulative industry production for tankers and containerships and only modestly decrease for bulk carriers, though the latter coefficient is statistically insignificant and small in magnitude.

Table C6 reports results from additional robustness exercises. First, we allow for a time trend in the cost function. This captures changes in the production technology over time. The time trend is estimated to be very small in magnitude and has little effect on other estimated cost parameters. Second, we repeat the analysis on a sub-sample that excludes Chinese yards that entered after the policies were announced (which might have newer technology). The results are robust and broadly similar to other specifications.

**Table C3:** Cost Function Estimates: Perfect Competition vs. Cournot Competition

| | Bulk carrier | | Tanker | | Containership | |
|---|---|---|---|---|---|---|
| | Coefficient | T-stat | Coefficient | T-stat | Coefficient | T-stat |
| **Cournot** | | | | | | |
| Capital (bill RMB) | -2.67 | -2.85 | -2.89 | -1.74 | -2.44 | -1.93 |
| Backlog | -1.80 | -5.03 | -5.02 | -4.97 | -3.30 | -3.19 |
| 2006-2008 | -2.10 | -3.01 | | | | |
| 2009+ | -1.22 | -1.78 | | | | |
| **Perfect competition** | | | | | | |
| Capital (bill RMB) | -2.43 | -2.96 | -2.61 | -1.80 | -2.19 | -2.01 |
| Backlog | -1.56 | -5.29 | -4.44 | -5.04 | -2.88 | -3.34 |
| 2006-2008 | -1.51 | -2.62 | | | | |
| 2009+ | -1.38 | -2.37 | | | | |
| N | 4886 | | 4977 | | 2504 | |

*Note:* The first panel reports the baseline cost function estimates from Table 2, which assumes that firms compete in quantities. The second panel reports the cost estimates assuming perfect competition. The table reports estimates for key coefficients. Full tables are available upon request. Standard errors bootstrapped using 500 bootstrap samples.

**Table C4:** Cost Function Estimates, Pooling Data Across China/Japan/South Korea

| | Bulk carrier | | Tanker | | Containership | |
|---|---|---|---|---|---|---|
| | Coefficient | T-stat | Coefficient | T-stat | Coefficient | T-stat |
| **Chinese yards** | | | | | | |
| Capital (bill RMB) | -2.67 | -2.85 | -2.89 | -1.74 | -2.44 | -1.93 |
| Backlog | -1.80 | -5.03 | -5.02 | -4.97 | -3.30 | -3.19 |
| 2006-2008 | -2.10 | -3.01 | | | | |
| 2009+ | -1.22 | -1.78 | | | | |
| N | 4886 | | 4977 | | 2504 | |
| **Chinese/Japanese/Korean yards** | | | | | | |
| Capital (bill RMB) | -3.33 | -2.98 | -2.47 | -1.53 | -1.57 | -1.28 |
| Backlog | -2.45 | -6.14 | -5.45 | -6.05 | -3.58 | -4.27 |
| China 2006-2008 | -3.60 | -4.85 | | | | |
| China 2009+ | -0.70 | -1.02 | | | | |
| N | 10013 | | 10429 | | 4661 | |

*Note:* The first panel reports the baseline cost function estimates from Table 2, which only uses data on Chinese yards. In the second panel, we pool together Chinese/Japanese/Korean yards. To account for missing capital stock for non-Chinese yards, we set the capital variable to zero for Japanese and Korean yards and add country dummies. Backlog coefficients differ by country. Backlog coefficients for Japan and Korea are not reported to save space and are available upon request. Standard errors bootstrapped using 500 bootstrap samples.

**Table C5:** Cost Function Estimates: Learning

| Type-specific | Bulk carrier | | Tanker | | Containership | |
|---|---|---|---|---|---|---|
| | Coefficient | T-stat | Coefficient | T-stat | Coefficient | T-stat |
| **Baseline specification** | | | | | | |
| Capital (bill RMB) | -3.33 | -2.98 | -2.47 | -1.53 | -1.57 | -1.28 |
| Backlog | -2.45 | -6.14 | -5.45 | -6.05 | -3.58 | -4.27 |
| **Allow for within-firm learning** | | | | | | |
| Capital (bill RMB) | -2.16 | -1.85 | -2.29 | -1.43 | -1.22 | -1.12 |
| Backlog | -1.67 | -4.78 | -5.30 | -5.09 | -1.13 | -1.40 |
| Cumulative Q | 0.08 | 4.12 | 0.10 | 5.22 | 0.02 | 3.60 |
| **Allow for within-firm and industry-wide learning** | | | | | | |
| Capital (bill RMB) | -2.48 | -2.14 | -4.80 | -1.66 | -2.81 | -1.26 |
| Backlog | -1.60 | -4.14 | -9.24 | -3.67 | -2.47 | -1.15 |
| Cumulative Q | 0.09 | 4.49 | 0.18 | 3.93 | 0.03 | 2.58 |
| Cumulative Q, China | -0.02 | -0.79 | 0.39 | 2.10 | 0.68 | 1.61 |

*Note:* The first panel repeats key coefficients from the second specification reported in Table C4 that pools together Chinese, Japanese and Korean yards. The second panel includes all regressors from the first panel, as well as each firm's cumulative past production. The third panel includes all regressors from the first panel, each firm's cumulative past production, and the country's cumulative past production. Standard errors bootstrapped using 500 bootstrap samples. All panels pool together Chinese/Japanese/Korean yards.

**Table C6:** Cost Function Estimates: Additional Robustness Checks

| | Bulk carrier | | Tanker | | Containership | |
|---|---|---|---|---|---|---|
| | Coefficient | T-stat | Coefficient | T-stat | Coefficient | T-stat |
| **Baseline specification** | | | | | | |
| Capital (bill RMB) | -3.33 | -2.98 | -2.47 | -1.53 | -1.57 | -1.28 |
| Backlog | -2.45 | -6.14 | -5.45 | -6.05 | -3.58 | -4.27 |
| China 2006-2008 | -3.60 | -4.85 | | | | |
| China 2009+ | -0.70 | -1.02 | | | | |
| **Add time trend** | | | | | | |
| Capital (bill RMB) | -3.40 | -2.93 | -2.51 | -1.57 | -1.60 | -1.23 |
| Backlog | -2.49 | -6.06 | -5.51 | -5.90 | -3.64 | -3.99 |
| China 2006-2008 | -3.76 | -4.48 | | | | |
| China 2009+ | -0.87 | -1.19 | | | | |
| Trend | 0.03 | 0.50 | | | | |
| **Existing yards** | | | | | | |
| Capital (bill RMB) | -3.98 | -3.04 | -3.26 | -1.39 | -0.48 | -0.35 |
| Backlog | -3.90 | -5.71 | -6.73 | -5.77 | -4.38 | -3.94 |
| China 2006-2008 | -3.01 | -3.03 | | | | |
| China 2009+ | -0.92 | -0.91 | | | | |

*Note:* The first panel repeats key coefficients from the second specification reported in Table C4 that pools together Chinese, Japanese and Korean yards. The second panel includes all regressors from the first panel, as well as a quarterly time trend. The third panel repeats the regression from the first panel on a sub-sample of shipyards where we exclude Chinese yards that entered after the policies were announced. Standard errors bootstrapped using 500 bootstrap samples. All panels pool together Chinese/Japanese/Korean yards.

## C.3   First-stage Policy Functions and State Transition Estimates

This section presents the first-stage estimates of investment and exit policy functions, as well as the state transition process. Table C7 reports the estimated investment policy function using OLS, Tobit, and CLAD. Table C8 reports the estimated exit policy function. Table C9 presents estimates of the transition process for the prices of bulk carriers, tankers, containerships, and steel.

**Table C7:** Estimates Of The Investment Policy Function

|  | (1) OLS | (2) Tobit | (3) CLAD |
|---|---|---|---|
| Constant | -0.066 | -12.2 | -31.9*** |
|  | (7.54) | (8.17) | (4.09) |
| B-spline 1 Capital | -69.7*** | -63.8*** | -69.6*** |
|  | (22.0) | (17.2) | (1.67) |
| B-spline 2 Capital | -74.7*** | -71.7*** | -68.2*** |
|  | (17.7) | (13.5) | (1.41) |
| 2006-08 | 6.42*** | 4.59** | 17.9*** |
|  | (1.60) | (2.32) | (0.74) |
| 2009+ | 2.70 | 3.79 | 3.55** |
|  | (2.20) | (3.03) | (1.80) |
| $\bar{s}_{jt}$ | 0.74*** | 0.87*** | 1.44*** |
|  | (0.11) | (0.087) | (0.040) |
| Bulk carrier price | 2.05*** | 1.97*** | 1.34*** |
|  | (0.46) | (0.57) | (0.30) |
| Tanker price | 0.48 | 1.89* | 0.81*** |
|  | (0.93) | (1.14) | (0.13) |
| Containership price | -1.25 | -1.49 | -0.55 |
|  | (0.87) | (1.06) | (0.34) |
| Steel price | -2.49*** | -4.44*** | -4.38*** |
|  | (0.53) | (0.61) | (0.19) |
| N | 4286 |  |  |
| $N(I>0)$ | 3301 |  |  |
| $N(I=0)$ | 985 |  |  |

*Note:* In Column (1), we carry out an OLS regression of investment ($I$) on basis functions of state variables, including both observations with $I > 0$ and $I = 0$. In (2), we estimate the policy function using a Tobit regression of $I$ on basis functions. In (3), we estimate the investment policy function using a censored least absolute deviations estimator. $\bar{s}_{jt}$ is a production-efficiency index that captures the effect of backlog, age, ownership, region, and size on a firm's per-period payoffs. Investment is measured in million RMB.

**Table C8:** Estimates of the Exit Policy Function

|  | (1) | | (2) | |
| --- | --- | --- | --- | --- |
|  | Coefficient | SE | Coefficient | SE |
| Constant | -0.57 | (0.97) | -0.56 | (1.02) |
| K | 0.05 | (0.35) | 0.54 | (0.43) |
| $K^2$ | -0.05 | (0.12) | -0.16 | (0.15) |
| 2006-2008 | -0.57 | (0.41) | -0.64 | (0.43) |
| 2009+ | -0.47 | (0.41) | -0.72 | (0.44) |
| $\bar{s}_{jt}$ | -0.01 | (0.01) | -0.04 | (0.02) |
| Bulk carrier price | 0.36 | (0.12) | 0.36 | (0.12) |
| Tanker price | -0.18 | (0.11) | -0.16 | (0.11) |
| Containership price | -0.22 | (0.10) | -0.25 | (0.11) |
| Steel price | -0.06 | (0.07) | -0.10 | (0.08) |
| Jiangsu |  |  | 0.77 | (0.24) |
| Zhejiang |  |  | 0.58 | (0.19) |
| Liaoning |  |  | 1.04 | (0.28) |
| N | 4605 | | 4605 | |
| Log-likelihood | -239.30 | | -229.74 | |
| Pseudo-R2 | 0.09 | | 0.12 | |

*Note:* We carry out a probit regression of a binary indicator of exit on basis functions of state variables. We restrict the estimation to 1999-2011, because firm exits in 2012 and 2013 are not reliably measured.

**Table C9:** AR(1) Estimates for State Transition Processes

|  | Bulk carriers | Tankers | Containerships | Steel |
| --- | --- | --- | --- | --- |
| Constant | 0.88 | 0.70 | 1.25 | -0.023 |
|  | (0.87) | (0.94) | (1.11) | (0.37) |
| Post | 3.44 | 3.63 | 1.80 | 2.32 |
|  | (2.28) | (3.43) | (3.33) | (1.01) |
| Price (t-1)*Pre | 0.86 | 0.92 | 0.88 | 0.89 |
|  | (0.12) | (0.086) | (0.090) | (0.19) |
| Price (t-1)*Post | 0.86 | 0.86 | 0.88 | 0.69 |
|  | (0.072) | (0.095) | (0.10) | (0.11) |
| Trend*Pre | 0.042 | 0.038 | 0.029 | 0.024 |
|  | (0.033) | (0.028) | (0.024) | (0.027) |
| Trend*Post | -0.058 | -0.054 | -0.040 | -0.022 |
|  | (0.027) | (0.041) | (0.040) | (0.013) |
| N | 57 | 57 | 57 | 57 |
| $R^2$ | 0.95 | 0.97 | 0.96 | 0.80 |

*Note:* The dependent variable is the price in quarter $t$. Standard errors in parenthesis. "Pre" refers to 2005Q4 or earlier. "Post" refers to 2006Q1 or later. The sample ranges from 1999 Q4 to 2013Q4.

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## C.4 Estimation of Dynamic Parameters: Model Fit

Table C10 compares the actual number of exits with model-predicted exits across 50 simulations. Firm exits are low-probability events and in general difficult to predict (Goldfarb and Xiao, 2016). Our model roughly matches the sample mean, though it under-predicts the number of exits post 2006. Table C11 compares the actual number of entrants with model-predicted number of entrants. Finally, Figure C1 plots both the distribution of actual investment as well as the distribution of model-predicted investment.These two distributions are reasonably similar, though actual investment has a long-tail of large investments and fewer medium-sized ones.

**Table C10:** Actual vs. Simulated Exit

|                 | 1999-2005 | 2006-2013 | Total |
|-----------------|-----------|-----------|-------|
| Actual exits    | 5         | 43        | 48    |
| Simulated exits | 9         | 32        | 41    |

*Note:* We simulate the model 50 times from 1999 to 2013 under the baseline and report the average number of exits across these simulations.

**Table C11:** Actual vs. Simulated Entrants

|                   | Pre | Post, Until 2008 | Post, 2009+ | Total |
|-------------------|-----|------------------|-------------|-------|
| Actual entries    | 83  | 122              | 39          | 244   |
| Simulated entries | 65  | 132              | 28          | 225   |

*Note:* "Pre"refers to the period prior to 2004 for Zhejiang, and prior to 2006 for Jiangsu, Liaoning and Other regions. "Post, Until 2008" refers to the period between 2004 and 2008 for Zhejiang and between 2006 and 2008 for Jiangsu, Liaoning and Other regions. "Post, 2009+" refers to the period from 2009 onwards. We simulate the model 50 times from 1999 to 2013 under the baseline and report the average number of entries across these simulations.

# D Counterfactual Exercises: Details

## D.1 Implementation of Counterfactual Analyses

Each counterfactual analysis involves two steps: first, solving for the new Bellman equation and policy functions, and second, simulating the industry forward until 2050. Here we briefly explain how to implement the first step through a fixed point algorithm:

1. Compute expected profits $\pi(s)$ at all states.

2. Start with an initial guess of the exit policy function $p^{0,x}(s)$ and investment policy function $i^0(s, v)$.

**Figure C1:** Simulated vs. Actual Investment
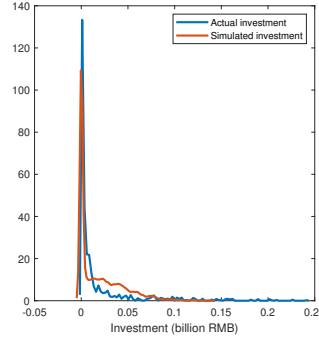


*Note*: For the model-predicted investment, we use the estimated parameters and value function, randomly draw $\nu$ for every observation, and plot the distribution of optimal investment predicted by the model.

3. Update the policy functions. At each iteration $j$:

- Solve for the value function coefficients $\gamma^{j+1}$ using the equation $V^{j+1}(s) = \pi(s) + p^{j,x}\sigma + CV^{j+1}(s)$.

- Update the investment policy function to $i^{j+1}(s,\nu)$ by solving the investment FOC, using $V^{j+1}$ and $CV^{j+1}$. As the value function is approximated by cubic B-splines, the investment policy function has an analytic solution.

- Update the exit policy function to $p^{j+1,x}$ using $V^{j+1}$ and $CV^{j+1}$.

- Check whether $||p^{j+1,x}(s) - p^{j,x}(s)|| < tol$ and $||i^{j+1}(s,\nu) - i^j(s,\nu)|| < tol$, where $tol$ is a pre-assigned tolerance level.

## D.2 Additional Counterfactual Results

Table D12 shows the effect of subsidies on ship prices. We show average prices for different ship types (bulk carriers, tankers and containerships), both for the 2006-08 period and the 2009-13 period.

**Table D12:** Impact of Subsidies on Ship Prices

|  | Bulk | Tanker | Container |
|---|---|---|---|
| Subsidies, 2006-08 | 16.4 | 20.7 | 17.4 |
| No subsidies, 2006-08 | 18.1 | 22.8 | 18.2 |
| % difference | 9.9% | 10.1% | 4.3% |
| Subsidies, 2009-13 | 8.8 | 6.4 | 9.0 |
| No Subsidies, 2009-13 | 10.2 | 7.3 | 9.4 |
| % difference | 16.8% | 14.8% | 4.2% |

*Note:* Prices in 1000 RMB/CGT

Figure D2 shows the HHI of the Chinese shipbuilding industry, both in the baseline scenario as well as in a scenario where firms do not receive any subsidies.

**Figure D2:** HHI For Chinese Shipbuilding, with And without Subsidies
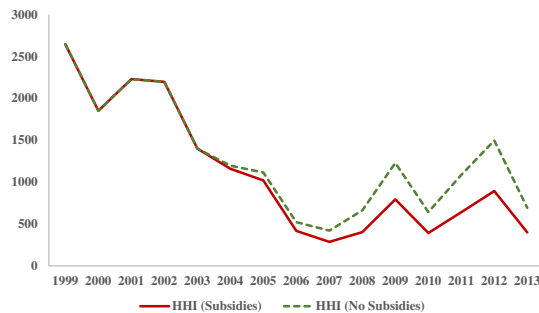


*Notes*: The HHI reported in the above figure is calculated using all Chinese yards in a given year. It measures the concentration of the Chinese domestic shipbuilding industry.

Table D13 presents the results from a counterfactual simulation comparing production and investment subsidies. The first column considers a scenario where firms receive only production subsidies at the baseline rate. In the third column, firms receive only investment subsidies. Investment subsidies appear less distortionary than production subsidies (74% vs. 50%).

However, this comparison is confounded by the larger magnitude of the production subsidies, as bigger subsidies are associated with more distortion. In the second column, we reduce the per-unit production subsidies by 75% to make the total amount of these two subsidies comparable. The return to investment subsidies remains higher, though the difference is smaller (74% vs 62%). Investment subsidies lead to a higher level of capital formation over the long run, which facilitates long-term industry growth, while production subsidies have a more immediate impact on output. Production subsidies are slightly more effective at increasing revenue: the increase in revenue per RMB of subsidy is 1.9 RMB for production subsidies, versus 1.5 RMB for investment subsidies. In

a similar vein, Aldy et al. (2018) find that wind farms claiming output subsidies produced 10-11% more power than wind farms claiming investment subsidies.

**Table D13:** Comparing Production and Investment Subsidies

|  | 100% Production Subsidy | 25% Production Subsidy | Investment Subsidy |
|---|---|---|---|
| Lifetime Revenue 2006- | 2154 | 1898 | 1873 |
| Lifetime Net Profit 2006- | 1061 | 978 | 981 |
| Production Subsidy | 225 | 47 | 0 |
| Investment Subsidy | 0 | 0 | 42 |
| Δ Revenue /Subsidy | 153% | 190% | 153% |
| Δ Net Profit/Subsidy | 50% | 62% | 74% |

*Note:* Revenue, net profit and subsidy are the discounted sum from 2006 to 2050, averaged across simulations. ΔRevenue/Subsidy and ΔNet Profit/Subsidy are defined as in Table 5. In scenario "100% Production Subsidy", we keep the production subsidy at the baseline estimate, but shut down entry and investment subsidies. In scenario "25% Production Subsidy", we set the per unit production subsidy to 25% of the baseline estimate to make the aggregate subsidy amount in the last two columns similar. In scenario "Investment Subsidy", we keep investment subsidy but shut down entry and production subsidies. In all scenarios, the 2013 government policy carries onward till the end of the simulation period (2050).

Table D14 shows the differential policy impact if the government were to only subsidize White List firms (2nd column), as opposed to subsidizing all firms in the industry after 2013 (1st column). We include the top 56 firms with highest profitability to form the White List. As a benchmark we also show industry revenues and profits if the government were to discontinue subsidies entirely after 2013.

Figure D3 compares the performance of two groups of firms: those on the actual White List and those on the optimal White List. To ease comparison, all other firms are forced to exit in 2013. We also discontinue subsidies post 2013. The solid red line plots profit for firms on the "optimal White List", while the dashed blue line plots profit for firms on the "actual White List." The difference in the long-term industry profits and revenue (the discounted sum from 2014 to 2050) between the optimal and the actual White List is 12% and 8%, respectively.

Finally, we analyze how the performance of policy instruments depends on the nature of competition. Table D15 illustrates counterfactual simulation results where we assume that firms take prices as given (perfect competition), instead of competing in quantities. Eliminating market-power considerations helps us evaluate the importance of the strategic trade argument in this setting. Relative to the benchmark results in Table 5, the overall return on subsidies is indeed lower under perfect competition, though the gap is modest. This is mainly driven by the fact that production subsidies are less effective when firms are price-takers (38% vs. 50%).

**Table D14:** Targeting Subsidies to White List Firms

|  | Subsidize all firms after 2013 | Subsidize White List firms after 2013 | No subsidies after 2013 |
|---|---|---|---|
| Lifetime Revenue 2014- | 922 | 882 | 793 |
| Lifetime Net Profit 2014- | 712 | 716 | 656 |
| Production Subsidy | 106 | 70 | 0 |
| Investment Subsidy | 40 | 13 | 0 |
| Entry Subsidy | 0 | 0 | 0 |
| Δ Revenue/Subsidy | 85% | 105% | |
| Δ Net Profit/Subsidy | 37% | 71% | |

*Note:* this table reports discounted sum of revenue, net profit and subsidy from 2014 to 2050, averaged across simulations. In column 1, all firms receive production and investment subsidies from 2014 to 2050; in column 2, only (optimal) White List firms receive subsidies; in column 3, no firms receive any subsidies. The White List includes 56 firms with the highest profitability in 2013.

**Figure D3:** Industry Profits Under Different White Lists
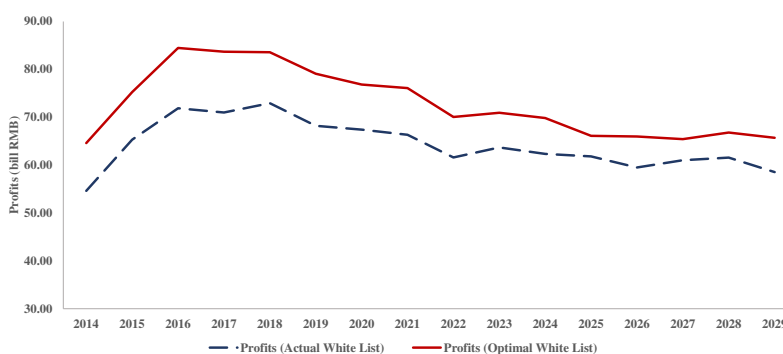


*Note:* in 2013, we keep firms on the White List, force all other firms to exit, and discontinue all subsidies. The solid red line plots profit for firms on the "optimal White List" from 2014 to 2029, while the dashed blue line plots profit for firms on the "actual White List" for the same period.

**Table D15:** Performance of Different Policy Instruments with Perfect Competition

|  | All Subsidies | Production subsidies | Investment subsidies | Entry subsidies | Remove all subsidies |
|---|---|---|---|---|---|
| Lifetime Revenue 2006- | 2253 | 2055 | 1786 | 1867 | 1716 |
| Lifetime Net Profits 2006- | 963 | 943 | 888 | 937 | 856 |
| Production subsidies | 267 | 227 | 0 | 0 | 0 |
| Investment subsidies | 78 | 0 | 42 | 0 | 0 |
| Entry subsidies | 412 | 0 | 0 | 217 | 0 |
| Δ Revenue/Subsidy | 71% | 150% | 166% | 70% | |
| Δ Net Profit/Subsidy | 14% | 38% | 74% | 37% | |

*Note:* We assume that firms are price-takers. Revenue, net profit and subsidy in the table refer to the discounted sum from 2006 to 2050, averaged across simulations. ΔRevenue/Subsidy and ΔNet Profit/Subsidy are defined as in Table 5.

## D.3 Impact of Industrial Policy on Freight Rate and Trade

China is the world's biggest exporter and the close second largest importer behind the USA in 2019. Given its fast growth in trade volume over the past couple of decades and its prominent role in global trade today, another reason to subsidize shipbuilding during the 2000s may have been to boost its imports and exports. Indeed, a larger worldwide fleet reduces transportation costs (or freight rates) and thus increases trade; if Chinese exporters and importers face entry barriers or other frictions, these subsidies may be justifiable.

To evaluate this argument, we first assess the extent to which industrial policy reduced freight rates. We then examine how changes in freight rates induced by the industrial policy have affected China's export and imports.

**Effect of Industrial Policy on Freight Rates**  As ships' lifetime discounted stream of profits depends on freight rates, and prices of new ships reflect their discounted future profits (the shipping industry is competitive), we use observed ship prices to invert freight rates. A ship's lifetime profit is equal to:

$$\Pi_t = \sum_t \beta^t (P_t^f Q_t^f - C(Q_t^f)) = \sum_t \beta^t (\bar{P}^f Q_t^f - C(Q_t^f)) \tag{D3}$$

where $P_t^f$ is the freight rate in period $t$, $\bar{P}^f$ is the average freight rate, $Q_t^f$ denotes the total number of voyages undertaken by the ship in period $t$, and $C(Q_t^f)$ is the operating cost. We obtain estimates of operating costs from UNCTAD (2012). We use the price of a ship to approximate its lifetime expected profit, invert equation (D3) and average over our sample period to obtain the long-term steady-state freight rate as a function of ship prices and operating costs. Since our counterfactuals have calculated changes in ship prices, we can use this to evaluate changes in freight rates.

We estimate that industrial policy caused the price of bulk carriers to fall by 13.2%, leading to a corresponding decline in bulk carrier freight rates of 6.1% (Table D16). Similarly, China's subsidies reduced containership prices by 4.3%, resulting in a 2% decrease in containership freight rates.

**Effect of Freight Rates on China's Exports and Imports**  Next, we evaluate how this reduction in freight rates affected China's exports and imports. The key determining factor is the trade elasticity with respect to shipping costs. Brancaccio et al. (2020) estimate a trade elasticity of -1 for bulk shipping, while Jeon (2018) estimates the elasticity to be -3.9 for container shipping. As there is no available data on the breakdown of China's trade volume by transport type, we assume that 70% of China's overall trade is seaborne, following UNCTAD (2012). Since China primarily imports raw materials and commodities that are typically transported in bulk carriers, while it exports manufactured goods that are usually transported in containerships, we assume that China's imports

use bulk carriers and that its exports use containerships. We ignore tankers due to the lack of the appropriate trade elasticity estimate, as well as the considerably smaller associated trade volume.

Table D16 presents the estimated impacts on China's trade volume. Subsidies had led to an annual increase in the amount of US$ 57 bn for China's imports and US$87 bn for China's exports between 2006 and 2013. The total effect of the subsidies on China's trade volume was therefore $144 bn annually. In contrast, the subsidies amounted to $11.3 bn annually during the same period. Whether or not the welfare gains associated with the increased trade volume could justify the cost of subsidies is an important question; however, answering this question requires a general equilibrium trade model and thus falls beyond the scope of this paper.

**Table D16:** Impact of Industrial Policy on Freight Rates and China's Trade Volume

| **Imports** | 2006-13 |
|---|---|
| % decrease in bulk carrier prices | 13.2% |
| % decrease in bulk carrier freight rate | 6.1% |
| Bulk trade elasticity | 1 |
| % change in seaborne imports | 6.1% |
| % change in imports | 4.3% |
| Impact on annual imports (US$ bn) | 57 |
| **Exports** | 2006-13 |
| % decrease in containership prices | 4.3% |
| % decrease in containership freight rate | 2.0% |
| Container trade elasticity | 3.89 |
| % change in seaborne exports | 7.9% |
| % change in exports | 5.5% |
| Impact on annual exports (US$ bn) | 87 |

*Note:* We obtain operating cost estimates for bulk carriers and containerships from UNCTAD (2012) and use them to calculate the effect of industrial policy on freight rates. China's total export and import value comes from the UNSD Commodity Trade database. We assume 70% of China's trade (in value) is searborne, following UNCTAD (2012).

## D.4 A Simple Model of Subsidies

To illustrate the welfare effect of subsidies, we use a simple static model with homogeneous firms. Each firm has a starting capital stock of $K_0$. Price is equal to $P$. Marginal cost of production equals $MC(q_t) = \alpha - \beta K + \delta q_t$. Total cost of investment equals $C_I(I) = c_1 I + (c_2/2)I^2$. The firm chooses $q$ and $I$ simultaneously to maximize profits:

$$V(K_0) = max_{q,I} Pq - \left( (\alpha - \beta(K_0 + I))q - \frac{\delta}{2}q^2 \right) - \left( c_1 I + \frac{c_2}{2}I^2 \right)$$

The optimal quantity and investment are denoted by $q^*$ and $I^*$, respectively.

Now suppose that the government introduces production subsidies of $\tau_p$ per unit. For simplicity, we assume that the firm only adjusts its level of production and not investment; thus investment remains fixed at $I^*$. The new level of production, $\hat{q}$, is:

$$\hat{q} = q^* + \frac{\tau_p}{\delta}$$

Alternatively suppose the government introduces investment subsidies of $\tau_i$ per unit. The new level of investment, $\hat{I}$, is:

$$\hat{I} = I^* + \frac{\tau_i}{c_2}$$

Below we provide expressions for the return to subsidies, which is the change in industry profits from the subsidies divided by the cost of providing the subsidies. We also provide expressions for the deadweight loss from subsidies:

$$\text{DWL from Prod. Subsidies} = \tau_p^2/2\delta$$
$$\text{DWL from Invest Subsidies} = \tau_i^2/2c_2$$
$$\text{Return to Prod. Subsidies} = (q^* + \frac{\tau_p}{2\delta})/(q^* + \frac{\tau_p}{\delta})$$
$$\text{Return to Invest Subsidies} = (I^* + \frac{\tau_i}{2c_2})/(I^* + \frac{\tau_i}{c_2})$$

Holding the adjustment cost parameters $c_2$ and $\delta$ fixed, the return to subsidies is increasing in $I^*$ (for investment) and $q^*$ (for production). In other words, subsidizing "better" firms leads to higher returns.

Our derivation of the DWL shows that the magnitude of DWL is independent of whether a firm has low or high marginal costs: $\tau_p^2/\delta$. Essentially, all firms (large or small) increase their output by the same amount when they receive the same subsidy. However, the return to subsidies is higher for low-cost firms than high-cost ones. This is because low-cost firms receive a higher absolute amount of subsidies due to the fact that they produce a higher quantity. Thus the DWL loss is divided by a

larger denominator which means the per-dollar return to subsidies is higher.

# EXHIBIT 22

**The General Office of the State Council issued the "Shipbuilding Industry Adjustment and Revitalization Plan"**

The Chinese government website published the full text of the "Shipbuilding Industry Adjustment and Revitalization Plan" on the 9th. This plan is an action plan for comprehensive response measures for China's shipbuilding industry from 2009 to 2011.

The "Plan" points out that since 2003, China's shipbuilding industry has entered a rapid development track. Since the second half of 2008, affected by the international financial crisis, the international shipping market has declined sharply, and the shipbuilding market has been greatly affected. New ship orders have been significantly reduced, corporate financing has been difficult, and the risk of contract delivery has increased. The development of China's shipbuilding industry is facing severe challenges.

The "Plan" puts forward the basic principles for the adjustment and revitalization of the shipbuilding industry, namely stabilizing shipbuilding orders and maintaining production growth; strengthening policy guidance to expand ship demand; promoting structural adjustment and integrating shipbuilding resources; accelerating independent innovation and developing offshore engineering equipment.

The "Plan" clarifies the development goals of the shipbuilding industry: first, the steady growth of ship production, and strive to achieve an annual shipbuilding output of 50 million tons, and an output of marine low-speed diesel engines 12 million horsepower in 2011; second, the market share gradually expanded, in 2011 The annual shipbuilding completions account for more than 35% of the world's shipbuilding completions ; third, the supporting capacity has been significantly enhanced, and the average shipment rate of local-produced marine supporting equipment for the three major ship types has reached more than 65% ; fourth, structural adjustment has made progress, and large ships The enterprise group has strong international competitiveness in the high-end ship market, and the Bohai Bay, the Yangtze River Estuary and the Pearl River Estuary have become world-class shipbuilding bases; fifth, the level of research and development has been significantly improved, and a number of internationally competitive brand ship types have been formed; sixth, the quality of development Significant improvement, key shipbuilding enterprises have basically

established a modern shipbuilding model.

The "Plan" pointed out that the main tasks for the adjustment and revitalization of the shipbuilding industry include: stabilizing the production of shipbuilding enterprises, expanding the market demand for ships, developing marine engineering equipment, supporting corporate mergers and reorganizations, improving independent innovation capabilities, strengthening technological transformation of enterprises, and actively developing ship repair business, strive to open up the international market, and strengthen the management of shipbuilding enterprises.

In order to achieve the goals and tasks set by the "Plan", the "Plan" also proposes a series of policy measures, including increasing credit financing support for production and operation, increasing credit for ship export buyers, encouraging the purchase of abandoned ships, and striving to expand the domestic ship market demand, accelerate the elimination of old ships and single-hull tankers, strictly control new production capacity, improve policies and measures for corporate mergers and reorganizations, and increase investment in scientific research and development and technological transformation.

The "Plan" requires that the relevant departments of the State Council should follow the division of labor in the "Plan" to formulate and improve various supporting policies and measures as soon as possible; relevant regions should formulate specific implementation plans in light of local realities to ensure that they achieve practical results.

## Shipbuilding Industry Adjustment and Revitalization Plan

The shipbuilding industry is a comprehensive industry that provides technical equipment for the shipping industry, marine development and national defense construction. It has a strong driving effect on the development and export expansion of key industries such as iron and steel, petrochemicals, light industry, textiles, equipment manufacturing, and electronic information. In response to the impact of the international financial crisis, to meet the overall requirements of maintaining growth, expanding domestic demand, and adjusting structure by the Party Central Committee and the State Council, to speed up the structural adjustment of the shipbuilding industry, enhance independent development capabilities, promote industrial upgrading, and promote the sustainable, healthy and stable development of China's

shipbuilding industry, this plan is specially formulated as an action plan for the comprehensive response measures of the shipbuilding industry. The planning period is 2009-2011.

**1. Current status and situation faced by the shipbuilding industry**

Since 2003, China's shipbuilding industry has entered a rapid development track. The scale of the industry continues to expand, and the output of shipbuilding has grown rapidly. The number of shipbuilding completions, new orders received, and orders in hand have been among the top in the world for many years in a row. The comprehensive strength has been steadily improved, and it has already possessed independent development capabilities for bulk carriers, oil tankers, and container ships (hereinafter referred to as the three mainstream ship types), and has also achieved breakthroughs in the fields of high-tech, high-value-added ships and marine engineering equipment. The shipbuilding cycle of large shipbuilding enterprises and the quality management has reached the international advanced level. Our country has become a major shipbuilding country in the world. However, while the shipbuilding industry is developing rapidly, contradictions such as weak independent innovation capabilities, extensive growth methods, low-level repeated investment, serious overcapacity, lagging development of marine supporting equipment, and slow progress in marine engineering equipment development are increasingly apparent. Since the second half of 2008, affected by the international financial crisis, the international shipping market has declined sharply, the shipbuilding market has been greatly impacted, new ship orders have been greatly reduced, corporate financing has encountered difficulties, and the risk of contract delivery has increased. The development of China's shipbuilding industry is facing a severe situation.

It should be noted that after years of development, China's shipbuilding industry has formed comprehensive competitive advantages such as strong raw material support, high-quality labor force, and complete manufacturing system. The world's shipbuilding industry is gradually transferring to China, and the development prospects of China's shipbuilding industry are still very broad. At present, China's shipbuilding industry is in a critical period of transformation from large to strong. We must seize the opportunity, actively take comprehensive measures, speed up structural adjustment and industrial upgrading, consolidate and enhance the international status of China's shipbuilding industry, and contribute to the steady and rapid development of the economy.

## 2. Guiding ideology, basic principles and goals

(1) Guiding ideology.

Comprehensively implement the spirit of the 17th National Congress of the Communist Party of China, guide by Deng Xiaoping Theory and the important thought of ″Three Represents″, thoroughly implement the Scientific Outlook on Development, and adopt active credit measures in accordance with the overall requirements of maintaining growth, expanding domestic demand, and adjusting structure., stabilize shipbuilding orders, resolve operating risks, and ensure the stable and rapid development of the shipbuilding industry; promote industrial structural adjustment by controlling new shipbuilding capacity, improve the comprehensive strength of large shipbuilding enterprises, and form new competitive advantages; develop high technology by accelerating independent innovation high value-added ships, developing marine engineering equipment, cultivating new economic growth points, and laying a solid foundation for building a strong shipbuilding country and implementing marine strategies.

(2) Basic principles.

Stabilize shipbuilding orders and maintain production growth. Actively respond to the risks of delayed delivery and abandonment of ships, prevent a large number of order cancellations, and strive to complete order tasks on schedule for shipping companies to maintain stable and rapid growth in production.

Strengthen policy guidance to expand ship demand. Adjust and optimize the capacity structure, eliminate outdated and old ships, and expand the market demand for ships.

Promote structural adjustment and integrate shipbuilding resources. Implement mergers and reorganizations, integrate production resources of shipbuilding, ship repairing, and marine engineering equipment, develop large-scale enterprise groups, and promote the coordinated development of shipbuilding and supporting industries.

Accelerate independent innovation and develop marine engineering equipment.

Intensify technological transformation, strengthen research and development of key technologies and new products, improve the level of marine supporting equipment, develop marine engineering equipment, and enhance international competitiveness.

(3) Planning objectives.

1. Ship production grew steadily. In the next three years, the shipbuilding industry will maintain steady and rapid growth, and strive to achieve an annual shipbuilding output of 50 million tons, and an output of marine low-speed diesel engines 12 million horsepower in 2011.

2. The market share is gradually expanding. In 2011, the annual shipbuilding completions account for more than 35% of the world's shipbuilding completions, the market share of high-tech and high value-added ships reaches 20%, and the market share of marine engineering equipment reaches 10%.

3. Supporting capabilities have been significantly enhanced. The average shipment rate of domestically produced marine supporting equipment for the three major ship types has reached over 65%, and the domestic market satisfaction rate of marine low-speed diesel engines, medium-speed diesel engines, deck machinery and other supporting equipment has reached over 80%.

4. Structural adjustment made progress. Large-scale shipbuilding enterprise groups have strong international competitiveness in the high-end shipbuilding market, several specialized marine engineering equipment manufacturing bases have begun to take shape, and a number of marine supporting equipment manufacturers have grown stronger, and the Bohai Bay, the Yangtze River Estuary and the Pearl River Estuary have become world-class shipbuilding bases.

5. The level of research and development has been significantly improved. The R&D and design of the three mainstream ship types have achieved serialization and standardization, forming a batch of internationally competitive brand ship types, and breakthroughs have been made in the development of high-tech, high-value-added ships and

marine engineering equipment.

6. The quality of development has improved significantly. Key shipbuilding enterprises have basically established a modern shipbuilding model, and the average construction cycle of the three major ship types has been shortened to less than ten months, the energy consumption per unit of industrial added value has been reduced by 15% in three years, and the utilization rate of steel has increased significantly.

## 3. Main tasks of industrial adjustment and revitalization

(1) Stabilize the production of shipbuilding enterprises.

Take effective measures to support large-scale shipping companies and shipping companies to perform contracts on time, and actively respond to operational risks such as delayed delivery, cancellation of orders, and abandonment of ships. Guide shipbuilding enterprises to strengthen production management, rationally arrange production plans, ensure shipbuilding quality and progress, and maintain production continuity.

(2) Expand the ship market demand.

Accelerate the scrapping and updating of old ships and eliminate single-hull tankers, and actively develop special ships such as ocean-going fishing boats, special ships, engineering ships, and work boats.

(3) Develop marine engineering equipment.

Support shipbuilding enterprises in the research and development of marine engineering equipment such as new jack-up drilling platforms, deep-water semi-submersible drilling platforms and production platforms, floating production storage and unloading devices, marine engineering operation vessels, large modules, and comprehensive integrated modules, and encourage research and development of marine engineering power and transmission systems, single point mooring systems, dynamic positioning systems, deep diving equipment, deck machinery, oily water treatment and seawater desalination and other key marine

engineering systems and supporting equipment.

(4) Support corporate mergers and reorganizations.

Support the merger and reorganization of large shipbuilding enterprise groups and other key shipbuilding enterprises. Promote the formation of strategic alliances between large shipping companies and upstream and downstream companies to support each other and develop together. Guide small and medium-sized shipping companies to adjust their business structure, develop intermediate product manufacturing, ship repair, special ship manufacturing and other businesses, and develop non-ship product markets. Support qualified enterprises to acquire well-known overseas marine supporting equipment enterprises, research and development institutions and marketing networks.

(5) Improve independent innovation capabilities.

Formulate the "Catalogue of Key Projects for Scientific Research and Development of the Shipbuilding Industry", support the optimization and upgrading of the three major ship types, develop ships that meet new norms, new standards, and energy-saving and environmental protection requirements, and improve the quality of large-scale liquefied natural gas ships, large-scale liquefied petroleum gas ships, large-scale car carriers, The design and development capabilities of high-tech and high-value-added ships such as scientific research ships, speed up the independent research and development of new marine diesel engines and their key components, deck machinery, cabin equipment, and communication and navigation automation equipment, and speed up the development of modern shipbuilding technology and basic common technology research for ships and ocean engineering equipment.

(6) Strengthen technological transformation of enterprises.

Formulate the "Ship Industry Technical Transformation Projects and Product Catalog", support the construction of special production facilities for high-tech, high-value-added ships and marine engineering equipment, and support ships and marine projects that fill domestic gaps and have remarkable energy-saving and environmental protection effects, and technical transformation of ships, marine engineering equipment and supporting products

whose production capacity cannot meet the market demand.

(7) Actively develop ship repair business.

Encourage shipbuilding enterprises to use existing shipbuilding facilities to carry out ship repair business. Strengthen ship repair technology research, and enhance the repair and modification capabilities of large ships, special ships, and marine engineering equipment. Standardize the development of the ship breaking industry and implement fixed-point dismantling.

(8) Efforts to open up the international market.

Formulate and improve relevant measures to consolidate the competitive advantages of our country's shipbuilding industry in the international market of the three mainstream ship types, increase the international market share of high-tech and high value-added ships and marine engineering equipment; encourage marine supporting equipment companies to establish overseas marketing networks and after-sales service systems to drive product exports.

(9) Strengthen the management of shipbuilding enterprises.

Guide shipbuilding enterprises to accelerate the establishment of modern enterprise systems, deepen internal reforms, promote management informationization, and comprehensively improve scientific decision-making and management levels; accelerate the establishment of modern shipbuilding models and promote digital shipbuilding; strengthen research on new international shipbuilding norms, new conventions, and new standards, Actively make relevant preparations; promote energy-saving and material-saving new technologies and processes, improve energy efficiency and steel utilization, and reduce energy consumption and material consumption; enhance market analysis and forecasting capabilities, strengthen contract management, improve capital use efficiency, and control financial resources. reduce costs, enhance the ability of enterprises to participate in international competition and prevent market risks; strengthen the training of innovative R&D and design talents, pioneering management talents, advanced skilled talent and other professional talents,

strengthen staff training, optimize the structure of talent teams, and meet the needs of sustainable development of enterprises.

**4. Policy measures**

(1) Increase credit financing support for production and operation.

All relevant banks shall ensure that the working capital loans required by the shipbuilding enterprises under construction and valid contracts are in place on schedule; for shipowners who delay taking over the ship, they shall provide appropriate support for the extension of loans to shipbuilding enterprises; for shipowners and shipping enterprises with good reputation, they shall be timely issued payments and repayment guarantees. Strengthen cooperation between banks and enterprises, and implement mortgage financing for ships under construction. Support qualified shipping companies to go public and issue bonds. Accelerate the establishment of a shipbuilding industry investment fund.

(2) Increase credit for ship export buyers.

Encourage financial institutions to increase the supply of credit funds for ship export buyers, and help large shipbuilding enterprise groups and other key shipbuilding enterprises to stabilize existing export ship orders.

(3) Encourage the purchase of abandoned ships.

Study and formulate relevant policies and measures to encourage key shipping companies to purchase abandoned ships of ocean-going ships, and encourage financial leasing companies to purchase abandoned ships of export ships.

(4) Efforts to expand the domestic ship market demand.

The value-added tax refund policy will continue to be implemented for domestic enterprises selling offshore engineering structures to domestic offshore oil and gas exploration enterprises. Increase the capital investment within the budget, and implement the

construction of government official and public welfare ships included in the national planning in advance.

(5) Accelerate the elimination of old ships and single-hull tankers.

Develop policies to encourage old ships to be scrapped and updated. Accelerate the introduction of a mandatory phase-out policy for single-hull (including single-hull and double-bottom and double-hull and single-bottom) oil tankers, and strictly prohibit modification and operation of overage ships.

(6) Strictly control new production capacity.

In addition to the "Medium and Long-term Development Plan for the Shipbuilding Industry (2006-2015) With the exception of shipbuilding projects within the 2016-2011, the land, ocean, environmental protection, finance and other relevant departments at all levels will no longer accept applications for other new shipyard and slipway projects. Newly built large-scale marine engineering equipment-specific infrastructure projects must be submitted to the state for approval. In the next three years, the approval of expansion projects of docks and slipways of existing shipbuilding companies will be suspended.

(7) Improve policies and measures for corporate mergers and reorganizations.

Formulate and introduce policies and measures to encourage corporate mergers and reorganizations, and properly resolve issues such as the placement of surplus personnel, transfer of corporate assets, debt consolidation and disposal, distribution of fiscal and tax benefits, etc.; adopt capital injections, financing credits, etc. to support large shipping enterprise groups in their implementation of mergers and reorganizations. Support key shipping companies to merge and reorganize other shipping companies, give priority to the approval of their technological transformation projects, and encourage product structure adjustments.

(8) Increase investment in scientific research and development and technological transformation.

Increase funding for high-tech ship research, support research and development of high-tech new ships, marine engineering equipment, and key supporting equipment, support research on key common technologies and advanced manufacturing technologies, and accelerate the construction of a shipbuilding industry standard system. Support the technological transformation of marine supporting equipment, marine engineering equipment, and specialized facilities and equipment for special shipbuilding, support large-scale shipbuilding companies in information construction and process reengineering after mergers and reorganizations, and support the adjustment and transformation of small and medium-sized shipbuilding companies that meet the requirements of relevant industrial policies. Support the construction of research and development conditions for shipbuilding enterprises and scientific research institutions.

## 5. Planning and implementation

Relevant departments of the State Council should divide work according to the "Plan", strengthen communication and consultation, cooperate closely, formulate and improve various supporting policies and measures as soon as possible, and ensure the smooth implementation of the "Plan". It is necessary to carry out the post-evaluation work of the "Plan" in a timely manner and put forward evaluation opinions in a timely manner.

Relevant regions should formulate specific implementation plans in accordance with the goals, tasks and policy measures determined in the "Plan" and in light of local realities to ensure that practical results are achieved. Specific work plans and new situations and problems arising during the implementation process shall be reported to the Development and Reform Commission, the Ministry of Industry and Information Technology and other relevant departments in a timely manner.

# 国务院办公厅印发《船舶工业调整和振兴规划》

中国政府网 9 日全文公布了《船舶工业调整和振兴规划》，这份规划是 2009－2011 年我国船舶工业综合性应对措施的行动方案。

《规划》指出，2003 年以来，我国船舶工业进入了快速发展轨道。2008 年下半年以来，受国际金融危机影响，国际航运市场急剧下滑，造船市场受到很大冲击，新船订单大幅减少、企业融资出现困难、履约交船风险加大，我国船舶工业发展面临严峻形势。

《规划》提出了船舶工业调整和振兴的基本原则，即稳定造船订单，保持生产增长；加强政策引导，扩大船舶需求；推进结构调整，整合造船资源；加快自主创新，发展海洋工程装备。

《规划》明确了船舶工业的发展目标：一是船舶生产稳定增长，力争 2011 年造船产量达到 5000 万吨，船用低速柴油机产量达到 1200 万马力；二是市场份额逐步扩大，2011 年造船完工量占世界造船完工量的 35%以上；三是配套能力明显增强，三大主流船型本土生产的船用配套设备的平均装船率达到 65%以上；四是结构调整取得进展，大型船舶企业集团在高端船舶市场具备较强国际竞争力，环渤海湾、长江口和珠江口成为世界级造船基地；五是研发水平显著提高，形成一批具有国际竞争力的品牌船型；六是发展质量明显改善，骨干船舶企业基本建立现代造船模式。

《规划》指出，船舶工业调整和振兴的主要任务包括：稳定船舶企业生产，扩大船舶市场需求，发展海洋工程装备，支持企业兼并重组，提高自主创新能力，加强企业技术改造，积极发展修船业务，努力开拓国际市场，加强船舶企业管理。

为实现《规划》确定的目标和任务，《规划》还提出了一系列政策措施，包括加大生产经营信贷融资支持、增加船舶出口买方信贷投放、鼓励购买弃船、努力扩大国内船舶市场需求、加快淘汰老旧船舶和单壳油轮、严格控制新增产能、完善企业兼并重组政策措施、加大科研开发和技术改造投入。

《规划》要求，国务院有关部门要按照《规划》分工，尽快制定和完善各项配套政策措施；有关地区要结合当地实际抓紧制订具体落实方案，确保取得实效。

## 船舶工业调整和振兴规划

船舶工业是为航运业、海洋开发及国防建设提供技术装备的综合性产业，对钢铁、石化、轻工、纺织、装备制造、电子信息等重点产业发展和扩大出口具有较强的带动作用。为应对国际金融危机影响，落实党中央、国务院关

于保增长、扩内需、调结构的总体要求，加快船舶工业结构调整，增强自主开发能力，推动产业升级，促进我国船舶工业持续、健康、稳定发展，特制定本规划，作为船舶工业综合性应对措施的行动方案。规划期为 2009－2011 年。

**一、船舶工业现状及面临的形势**

2003 年以来，我国船舶工业进入了快速发展轨道。产业规模不断扩大，造船产量快速增长，造船完工量、新接订单量、手持订单量已连续多年居世界前列。综合实力稳步提升，已经具备散货船、油船、集装箱船（以下称三大主流船型）自主开发能力，在高技术高附加值船舶、海洋工程装备领域也实现了突破，大型船舶企业造船周期和质量管理达到国际先进水平。我国已经成为世界造船大国。但是，船舶工业在高速发展的同时，自主创新能力不强、增长方式粗放、低水平重复投资、产能严重过剩、船用配套设备发展滞后、海洋工程装备开发进展缓慢等矛盾日益显现。2008 年下半年以来，受国际金融危机影响，国际航运市场急剧下滑，造船市场受到很大冲击，新船订单大幅减少、企业融资出现困难、履约交船风险加大，我国船舶工业发展面临严峻形势。

应该看到，经过多年的发展，我国船舶工业已经形成了原材料配套强、劳动力素质高、制造业体系完备等综合竞争优势，世界造船业正逐步向我国转移，我国船舶工业发展前景依然十分广阔。当前，我国船舶工业正处在由大到强转变的关键时期，必须抓住机遇，积极采取综合措施，加快结构调整和产业升级，巩固和提升我国船舶工业的国际地位，为经济平稳较快发展做出积极贡献。

**二、指导思想、基本原则和目标**

（一）指导思想。

全面贯彻落实党的十七大精神，以邓小平理论和"三个代表"重要思想为指导，深入贯彻落实科学发展观，按照保增长、扩内需、调结构的总体要求，通过采取积极的信贷措施，稳定造船订单，化解经营风险，确保船舶工业平稳较快发展；通过控制新增造船能力，推进产业结构调整，提高大型船舶企业综合实力，形成新的竞争优势；通过加快自主创新，开发高技术高附加值船舶，发展海洋工程装备，培育新的经济增长点，为建设造船强国和实施海洋战略奠定坚实基础。

（二）基本原则。

稳定造船订单，保持生产增长。积极应对推迟接船和弃船风险，防止出现大量撤单问题，力争船舶企业按期完成订单任务，保持生产平稳较快增长。

2

加强政策引导，扩大船舶需求。调整优化运力结构，淘汰落后老旧船舶，扩大船舶市场需求。

推进结构调整，整合造船资源。实施兼并重组，整合造船、修船、海洋工程装备生产资源，发展大型企业集团，促进船舶制造业和配套业协调发展。

加快自主创新，发展海洋工程装备。加大技术改造力度，加强关键技术和新产品研究开发，提高船用配套设备水平，发展海洋工程装备，提高国际竞争力。

（三）规划目标。

1．船舶生产稳定增长。今后三年船舶工业保持平稳较快增长，力争2011年造船产量达到5000万吨，船用低速柴油机产量达到1200万马力。

2．市场份额逐步扩大。2011年造船完工量占世界造船完工量的35%以上，高技术高附加值船舶市场占有率达到20%，海洋工程装备市场占有率达到10%。

3．配套能力明显增强。三大主流船型本土生产的船用配套设备的平均装船率达到65%以上，船用低速柴油机、中速柴油机、甲板机械等配套设备的国内市场满足率达到80%以上。

4．结构调整取得进展。大型船舶企业集团在高端船舶市场具备较强国际竞争力，若干个专业化海洋工程装备制造基地初具规模，一批船用配套设备生产企业发展壮大，环渤海湾、长江口和珠江口成为世界级造船基地。

5．研发水平显著提高。三大主流船型研发设计实现系列化、标准化，形成一批具有国际竞争力的品牌船型，高技术高附加值船舶和海洋工程装备开发取得突破。

6．发展质量明显改善。骨干船舶企业基本建立现代造船模式，三大主流船型平均建造周期缩短到10个月以内，单位工业增加值能耗三年累计降低15%，钢材利用率显著提高。

**三、产业调整和振兴的主要任务**

（一）稳定船舶企业生产。

采取有效措施，支持大型船舶企业和航运企业按期履行合同，积极应对推迟接船、撤单、弃船等经营风险。指导船舶企业加强生产管理，合理安排生产计划，确保造船质量和进度，保持生产连续性。

（二）扩大船舶市场需求。

加快报废更新老旧船舶和淘汰单壳油轮，积极发展远洋渔船、特种船、工程船、工作船等专用船舶。

（三）发展海洋工程装备。

支持造船企业研究开发新型自升式钻井平台、深水半潜式钻井平台和生产平台、浮式生产储卸装置、海洋工程作业船及大型模块、综合性一体化组块等海洋工程装备，鼓励研究开发海洋工程动力及传动系统、单点系泊系统、动力定位系统、深潜水装备、甲板机械、油污水处理及海水淡化等海洋工程关键系统和配套设备。

（四）支持企业兼并重组。

支持大型船舶企业集团及其他骨干船舶企业实施兼并重组。推动大型船舶企业与上下游企业组成战略联盟，相互支持，共同发展。引导中小船舶企业调整业务结构，发展中间产品制造、船舶修理、特种船舶制造等业务，开拓非船产品市场。支持有条件的企业并购境外知名船用配套设备企业、研发机构和营销网络。

（五）提高自主创新能力。

制定《船舶工业科研开发重点项目目录》，支持优化升级三大主流船型，开发适应新规范、新标准和节能环保要求的船舶，提高大型液化天然气船、大型液化石油气船、大型汽车运输船、科学考察船等高技术高附加值船舶的设计开发能力，加快新型船用柴油机及其关键零部件、甲板机械、舱室设备、通信导航自动化设备的自主研发，加快现代造船技术、船舶和海洋工程装备基础共性技术研究。

（六）加强企业技术改造。

制定《船舶工业技术改造项目及产品目录》，支持高技术高附加值船舶和海洋工程装备专用生产设施项目建设，支持填补国内空白、节能环保效果显著以及产能不能满足市场需求的船舶和海洋工程装备及配套产品的技术改造。

（七）积极发展修船业务。

鼓励造船企业利用现有造船设施开展修船业务。加强修船技术研究，增强大型船舶、特种船舶、海洋工程装备修理和改装能力。规范发展拆船业，实行定点拆解。

（八）努力开拓国际市场。

制定并完善相关措施，巩固我国船舶工业在三大主流船型国际市场的竞争优势，扩大高技术高附加值船舶、海

洋工程装备的国际市场份额；鼓励船用配套设备企业建立境外营销网络和售后服务体系，带动产品出口。

（九）加强船舶企业管理。

引导船舶企业加快建立现代企业制度，深化内部改革，推进管理信息化，全面提高科学决策和管理水平；加快建立现代造船模式，推进数字化造船；加强国际造船新规范、新公约、新标准的研究，积极做好相关准备工作；推广节能节材新技术、新工艺，提高能源使用效率和钢材利用率，降低能耗物耗；增强市场分析和预测能力，加强合同管理，提高资金使用效率，控制财务成本，增强企业参与国际竞争和防范市场风险的能力；加强创新型研发设计人才、开拓型经营管理人才、高级技能人才等专业人才培养，强化职工培训，优化人才队伍结构，满足企业可持续发展需要。

**四、政策措施**

（一）加大生产经营信贷融资支持。

各相关银行对船舶企业在建船舶和有效合同所需的流动资金贷款要确保按期到位；对船东推迟接船的，要适当给予船舶企业贷款展期支持；对信誉良好的船东和船舶企业要及时开具付款和还款保函。加强银企合作，对在建船舶实行抵押融资。支持符合条件的船舶企业上市和发行债券。加快建立船舶产业投资基金。

（二）增加船舶出口买方信贷投放。

鼓励金融机构增加船舶出口买方信贷资金投放，帮助大型船舶企业集团和其他骨干造船企业稳定现有出口船舶订单。

（三）鼓励购买弃船。

研究制定相关政策措施，鼓励骨干航运企业购买远洋船舶的弃船，鼓励金融租赁公司购买出口船舶的弃船。

（四）努力扩大国内船舶市场需求。

对国内企业向国内海上石油天然气开采企业销售海洋工程结构物，继续实行增值税退税政策。加大预算内资金投入，提前实施纳入国家规划的政府公务性、公益性船舶建造。

（五）加快淘汰老旧船舶和单壳油轮。

研究鼓励老旧船舶报废更新政策。抓紧出台单壳（包括单壳双底和双壳单底）油轮强制淘汰政策，严禁超龄船

舶改造、运营。

（六）严格控制新增产能。

除《船舶工业中长期发展规划（2006－2015 年）》内的造船项目外，各级土地、海洋、环保、金融等相关部门不再受理其他新建船坞、船台项目的申请。新建大型海洋工程装备专用基础设施项目需报国家核准。今后三年，暂停审批现有造船企业船坞、船台的扩建项目。

（七）完善企业兼并重组政策措施。

制定出台鼓励企业兼并重组的政策措施，妥善解决富余人员安置、企业资产划转、债务合并与处置、财税利益分配等问题；采取资本金注入、融资信贷等方式支持大型船舶企业集团实施兼并重组。支持骨干船舶企业兼并重组其他船舶企业，优先核准其技术改造项目，鼓励进行产品结构调整。

（八）加大科研开发和技术改造投入。

增加高技术船舶科研经费投入，支持高技术新型船舶、海洋工程装备及重点配套设备研发，支持关键共性技术和先进制造技术研究，加快船舶工业标准体系建设。支持开展船用配套设备、海洋工程装备以及特种船舶制造专业化设施设备等方面的技术改造，支持大型船舶企业兼并重组后进行信息化建设和流程再造，支持中小型造船企业符合相关产业政策要求的调整转型。支持船舶企业和科研机构研发条件建设。

**五、规划实施**

国务院有关部门要按照《规划》分工，加强沟通协商，密切配合，尽快制定和完善各项配套政策措施，确保《规划》顺利实施。要适时开展《规划》的后评价工作，及时提出评价意见。

有关地区要按照《规划》确定的目标、任务和政策措施，结合当地实际抓紧制订具体落实方案，确保取得实效。具体工作方案和实施过程中出现的新情况、新问题要及时报送发展改革委、工业和信息化部等有关部门。

# EXHIBIT 23

# Announcement No. 52 of 2009 of the Ministry of Transport

# Announcement on Publishing the Implementation Plan for Early Elimination of Domestic Navigation Single-hull Tankers

In order to strengthen the protection of the water environment, reduce the risk of major oil pollution accidents, improve the safety and pollution prevention technology level of domestic sailing oil tankers, and promote the construction of an environment-friendly society, according to the "State Council on Issuing the Shipbuilding Industry Adjustment and Revitalization Plan" (State Development [2009] No. 21) requirements, with reference to the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the 1978 Protocol, our Ministry has decided to eliminate domestic single-hull oil tankers in advance. The implementation plan is now announced as follows:

1. Starting from January 1, 2010, newly built domestic oil tankers of 600 deadweight tons and above must meet the anti-pollution double-hull structure requirements.

2. Starting from January 1, 2011, existing domestic single-hull oil tankers of 600 deadweight tons and above shall meet the anti-pollution double-hull structure requirements no later than the following dates:

(1) 5,000 deadweight tons and above:

1.Anniversary of construction date in 2011;

2. If one of the following conditions is met, the extension can be extended to the anniversary of the construction date in 2015 or the 26th anniversary after the construction date, whichever is earlier.

(1) Only double bottom or double side tanks not used for oil storage and extending to the entire length of the cargo oil tank are provided;

(2) It only has dedicated ballast tanks and protective positions, and has passed the statutory additional inspections implemented by China Classification Society with reference to the requirements of the CAS Code promulgated by the International Maritime Organization;

(3) There is a double-hull space that is not used to hold oil and extends to the entire length of the cargo oil tank but does not meet the requirements for anti-pollution double-hull structures.

(2) 600 deadweight tons and above but less than 5,000 deadweight tons and carrying heavy cargo oil:

1. For coastal navigation, the anniversary of the construction date in 2015 or the 26th anniversary after the construction date, whichever is earlier; if one of the following conditions is met, it can be extended to the 26th anniversary after the construction date.

(1) Only double bottom or double side tanks not used for oil storage and extending to the entire length of the cargo oil tank are provided;

(2) There is a double-shell space that is not used for oil storage and extends to the entire length of the cargo oil tank but does not meet the requirements for anti-pollution double-shell structures.

2. If engaged in inland navigation, the 26th anniversary after the date of construction.

(3) If the time limit specified in (1) and (2) of this article has expired from January 1, 2011, the requirements for anti-pollution double-shell structure shall be met no later than January 1, 2011.

(4) Existing domestic navigation oil barges of 600 deadweight tons and above shall implement the provisions of (1), (2) and (3) of this article from January 1, 2012.

3. In addition to complying with the provisions of Article 2 of this announcement, starting from January 1, 2015, domestic sailing oil tankers of 600 deadweight tons and above that do not meet the requirements for anti-pollution double-hull structures are not allowed to carry heavy cargo oil in the Bohai Sea, Beijing and Hangzhou Canal navigation, berthing and operation; domestic sailing oil tankers and oil barges that sail, berth and operate in the Three Gorges Reservoir area should also comply with the "Announcement on Promoting the Implementation Plan for the Standardization of Ship Types on the Yangtze River Main Line" (Ministry of Transport Announcement No. 24, 2009).

4. From the date of issuance of this announcement, the transportation authorities at all levels and their shipping management agencies, maritime management agencies and ship inspection agencies shall not handle ship inspections, ship inspections, or inspections for domestic sailing oil tankers of 600 deadweight tons and above that do not meet the requirements of this announcement. Registration and operating procedures.

5. Maritime management agencies at all levels should strictly implement the requirements of this announcement and prohibit domestic sailing oil tankers that violate the provisions of this

announcement from entering ports and offshore loading and unloading stations under their jurisdiction and conducting barge operations in the waters under their jurisdiction.

6. The relevant terms in this announcement are defined as follows:

(1) "Pollution-proof double-hull structure" refers to double-bottom tanks and side tanks that comply with domestic ship inspection regulations. Relevant ship inspection regulations will be formulated separately.

(2) "Newly built" means that the ship has its keel laid or is in the corresponding construction stage on or after January 1, 2010. "Existing" means not new.

(3) "Construction date" refers to the date when the keel of the ship is laid or the ship is in the corresponding construction stage. If the date of laying the keel or the corresponding construction stage is unknown, the calculation will be based on the date of the first anniversary before the date of completion of the ship."

(4) "Oil tanker" means a ship constructed or adapted to carry bulk oil primarily in its loading spaces. Tankers that may be used to carry noxious liquid substances in bulk are not subject to the provisions of this announcement when carrying only noxious liquid substances in bulk.

(5) "Oil barge" refers to a ship without power propulsion device and specially used for transporting bulk oil cargo.

(6) "Heavy cargo oil" means:

1. Crude oil with a density greater than 900kg/m3 at 15°C;

2. Oils other than crude oil with a density greater than 900kg/m3 at 15°C or a kinematic viscosity greater than 180mm2/s at 50°C; or

3. Asphalt, tar and their emulsions.

(7) "Bohai Sea Area" refers to the sea area west of the junction of the coastlines of Dalian and Dandong cities in the Liaodong Peninsula and the junction of the coastlines of Yantai and Weihai cities in the Shandong Peninsula (including the entire Bohai Sea and Dalian City and The Yellow Sea adjacent to Yantai City).

(8) "Beijing-Hangzhou Canal" refers to the navigable section of the Beijing-Hangzhou Canal from Jining, Shandong to Hangzhou, Zhejiang.

Notice is hereby given.

Attachment: Domestic single-hull oil tanker elimination schedule (omitted)


Ministry of Transport

December 7, 2009

北京法院法规检索

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【法规标题】交通运输部公告2009年第52号——关于发布提前淘汰国内航行单壳油轮实施方案的公告
【法规文号】52
【发布日期】20091207
【实施日期】20091207
【发布部门】交通运输部
【效力等级】

【正文】

**交通运输部公告2009年第52号——关于发布提前淘汰国内航行单壳油轮实施方案的公告**

　　为加强水域环境保护，降低重大污染事故风险，提高国内航行油轮的安全与防污染技术水平，促进环境友好型社会建设，根据《国务院关于印发船舶工业调整与振兴规划》（国发[2009]21号）要求，参照《经1978年议定书修订的1973年国际防止船舶造成污染公约》，我部决定提前淘汰国内航行单壳油轮，现将实施方案公告如下：

　　一、自2010年1月1日起，新造600载重吨及以上国内航行油轮应满足防污染双壳结构要求。

　　二、自2011年1月1日起，现有600载重吨及以上的国内航行单壳油轮，应不迟于下列日期满足防污染双壳结构要求：

　　（一）5000载重吨及以上的：

　　1.2011年建造日期周年日；

　　2．如满足以下条件之一的，可以延期至2015年建造日期周年日或建造日期后的26周年，以较早者为准。

　　（1）仅设有不用于装油的且延伸至整个货油舱长度的双层底或双边舱；

　　（2）仅设有专用压载舱及保护位置，并通过中国船级社参照国际海事组织颁布的《CAS规则》要求实施的法定附加检验；

　　（3）设有不用于装油且延伸至整个货油舱长度的双壳体处所但不满足防污染双壳结构要求。

　　（二）600载重吨及以上但小于5000载重吨且载运重质货油的：

　　1．从事沿海航行的，2015年建造日期周年日或建造日期后的26周年，以较早者为准；如满足以下条件之一的，可以延期至建造日期后的26周年。

　　（1）仅设有不用于装油的且延伸至整个货油舱长度的双层底或双边舱；

　　（2）设有不用于装油且延伸至整个货油舱长度的双壳体处所但不满足防污染双壳结构要求的。

　　2．从事内河航行的，建造日期后的26周年。

　　（三）如2011年1月1日起已满本条（一）、（二）规定期限的，应不迟于2011年1月1日满足防污染双壳结构要求。

　　（四）现有600载重吨及以上的国内航行油驳，自2012年1月1日起执行本条（一）、（二）、（三）的规定。

　　三、除遵守本公告第二条规定外，自2015年1月1日起，600载重吨及以上不满足防污染双壳结构要求的国内航行油轮，不得载运重质货油在渤海海域、京杭运河航行、停泊和作业；三峡库区内航行、停泊和作业的国内航行油轮、油驳，还应遵守《关于发布推进长江干线船型标准化实施方案的公告》（交通运输部公告2009年第24号）的规定。

　　四、自本公告发布之日起，各级交通运输主管部门及其航运管理机构、海事管理机构和船舶检验机构不得为600载重吨及以上不符合本公告要求的国内航行油轮办理船舶检验、船舶登记和营运手续。

　　五、各级海事管理机构应严格执行本公告要求，禁止违反本公告规定的国内航行油轮进入管辖的港口、近海装卸站和在管辖水域内进行过驳作业。

　　六、本公告中相关术语定义如下：

　　（一）"防污染双壳结构"，系指设有符合国内船舶检验规范规定的双层底舱和边舱。相关的船舶检验规范将另行制定。

　　（二）"新造"系指该船在2010年1月1日及以后安放龙骨或处于相应的建造阶段。"现有"系指非新造。

　　（三）"建造日期"系指该船安放龙骨或处于相应的建造阶段的日期。如安放龙骨或处于相应的建造阶段日期不详，则按该船建成日期前一周年的日期计"。

　　（四）油轮"系指建造为或改造为主要在其装货处所装运散装油类的船舶。可用于载运散装有毒液体物质的油轮在仅载运散装有毒液体物质时不受本公告规定约束。

　　（五）"油驳"系指无动力推进装置的，专门用于运输散装油类货物的船舶。

　　（六）"重质货油"系指：

　　1.在15℃时密度大于900kg/m3的原油；

　　2.在15℃时密度大于900kg/m3或50℃时运动粘度大于180mm2/s的原油以外的其他油类；或

　　3.沥青、焦油和它们的乳剂。

　　（七）"渤海海域"系指从辽东半岛的大连、丹东两市海岸线交界处与山东半岛的烟台、威海两市海岸线交界处之间连线为界以西的海域（含整个渤海及大连市和烟台市毗邻的黄海海域）。

　　（八）"京杭运河"系指山东济宁至浙江杭州的京杭运河通航航段。

　　特此公告。

　　附件：国内航行单壳油轮淘汰时间表（略）

<div style="text-align:right">
交通运输部<br>
二〇〇九年十二月七日
</div>

附件：
国内航行单壳油轮淘汰时间表.doc

# EXHIBIT 24

# Notice of the Ministry of Finance and Other Departments on Printing and Distributing the "Administrative Measures for Special Funds for Subsidies for the Scraping and Renewal of Old Ships and Single-hull Tankers"

Caijian [2011] No. 4

The public finance departments (bureaus) and transportation departments (bureaus and commissions) of all provinces, autonomous regions, municipalities directly under the Central Government, and cities under separate state planning, the shipbuilding industry authorities, the National Development and Reform Commission, the maritime safety bureaus directly under the Ministry of Transport, and the China Classification Society:

According to the "Notice of the State Council on Issuing the Shipbuilding Industry Adjustment and Revitalization Plan" (Guofa [2009] No. 21) and the "Notice of the State Council on Issuing the Implementation Plan for Promoting the Scraping and Renewal of Old Transport Ships and Single-Hull Oil Tankers" (Jiaoshuifa [2010] 273), with the approval of the State Council, the central government has established a special fund to subsidize the scrapping and renewal of old transport ships and single-hull oil tankers. In order to strengthen fund management and improve the efficiency of fund use, the " Administrative Measures for Special Funds for Subsidies for the Scraping and Renewal of Old Ships and Single-Hull Tankers" have been formulated. It is hereby printed and issued for your implementation.

Attachment: Administrative Measures for Special Funds for Subsidies for the Scraping and Renewal of Old Ships and Single-Hull Tankers

Ministry of Finance

transportation Department

Ministry of Industry and Information Technology

National Development and Reform Commission

January 4, 2011

Appendix:

# Administrative Measures for Special Funds for Subsidies for the Scraping and Renewal of Old Ships and Single-Hull Tankers

## Chapter 1 General Provisions

Article 1 According to the "Notice of the State Council on Issuing the Plan for the Adjustment and Revitalization of the Shipbuilding Industry" (Guofa [2009] No. 21) and the "Notice of the State Council on Issuing the Implementation Plan for Promoting the Scraping and Renewal of Old Transport Ships and Single-hull Oil Tankers" (Jiaoshuifa [2010] No. 273, hereinafter referred to as the "Implementation Plan"), these measures are specially formulated to regulate the management of special funds for scrapping and renewal of old transport ships and single-hull oil tankers.

Article 2 The term "Special Subsidy Fund for Scrapping and Renovation of Old Transport Ships and Single-Hull Oil Tankers" as mentioned in these Measures (hereinafter referred to as the subsidy funds) refers to the special funds arranged by the central government through the general budget to encourage the early scrapping of old transport ships and single-hull oil tankers. Updated grant funding.

Article 3 The subsidy targets are ship owners who meet the conditions stipulated in these measures and dismantle old transport ships and single-hull oil tankers for scrap and purchase and build new ships between June 5, 2010 and June 30, 2012.

## Chapter 2 Subsidy Scope and Standards

Article 4 The scope and standards of subsidies for early scrapping and renewal of old transport ships are as follows:

(1) To apply for early scrapping and renewal subsidies for old transport ships, the following conditions must be met at the same time:

1. The ships to be scrapped are old Chinese transport ships (except single-hull oil tankers) with a gross tonnage of more than 1,000 tons (including 1,000 gross tons) that have obtained domestic and international transportation operation qualifications before June 5, 2010.

2. The ship holds valid ship inspection, ship registration, ship operation and other certificates.

3. The ship is required to be scrapped 2 years to 10 years (inclusive) in advance according to the "Management Regulations on Old Transport Ships" of the Ministry of Transport (Ministry of Transport Order No. 14, 2009).

4. The ship was dismantled at a domestic ship dismantling enterprise recognized by the relevant departments from June 5, 2010 to December 31, 2011. The identification of ship dismantling enterprises shall be carried out in accordance with the relevant provisions of the "Several Opinions on Regulating the Development of the Ship Dismantling Industry" (Shangchanfa [2009] No. 614) jointly issued by the Ministry of Commerce and other eight ministries and commissions.

5. The owner of the ship to be scrapped shall, between June 5, 2010 and June 30, 2012, comply with the requirements of the national industrial policy and the "Basic Requirements and Evaluation Methods for Production Conditions of Ship Manufacturing Enterprises" (CB/T3000-2007) A Class II and III shipbuilding enterprise shall sign a shipbuilding contract and build a Chinese ship that has obtained a classification certificate issued by the China Classification Society and is no less than the tonnage (gross tonnage) of the original scrapped ship.

6. The owners of newly built ships and scrapped ships are the same.

(2) The subsidy standard is determined based on the scrapped ship and is calculated according to the following formula:

The amount of subsidy for a single ship = subsidy base × ship gross tonnage × ship age coefficient × ship type coefficient.

Among them: the subsidy base is 1,000 yuan;

The gross tonnage of the ship shall be determined according to the ship inspection certificate;

The age coefficient of the ship is calculated based on the actual age of the ship when the ship is dismantled and the ship ownership cancellation procedures are completed, and the number of years for early retirement is determined corresponding to the "Age Coefficient Table for Early Scraping of Old Transport Ships and Single-hull Oil Tankers" (Attachment 1);

Sea-going ship type coefficient: 1.5 for passenger ships, liquefied gas carriers, chemical tankers, oil tankers, and push (tug) ships, 1.2 for container ships, refrigerated ships, multi-

purpose ships, and ro-ro cargo ships, and 1.2 for bulk carriers, general cargo ships, and others Cargo ships are 1.0 and barges are 0.6;

Ship type coefficient for inland river ships: Multiply 0.7 on the basis of seagoing ships of the same type.

Article 5 The scope and standards of subsidies for early scrapping and renewal of single-hull oil tankers are as follows:

(1) To apply for early scrapping and renewal subsidies for single-shell oil dryers, the following conditions must be met at the same time:

1. The ships to be scrapped are Chinese single-hull oil tankers of more than 600 deadweight tons (including 600 deadweight tons) that have obtained domestic and international transportation operation qualifications before June 5, 2010.

2. The ship holds valid ship inspection, ship registration, ship operation and other certificates.

3. If the ship is a domestic sailing single-hull oil tanker and is within the phase-out range determined by the Ministry of Transport's "Announcement on the Early Phase-out of Domestic Navigation Single-hull Oil Tankers" (No. 52, 2009), the ship shall be subject to the provisions of the announcement. The deadline for elimination is 1 to 10 years in advance (including 1 year and 10 years, the same below) for dismantling;

The ship is a domestic sailing single-hull oil tanker, but if it is outside the elimination scope determined by the "Announcement on the Issuance of an Implementation Plan for the Early Phase-out of Domestic Sailing Single-hull Oil Tankers", the mandatory scrapping age will be advanced by 1 year in accordance with the "Old Transport Ship Management Regulations" Year-10 years for dismantling;

If the ship is a single-hull oil tanker operating on international voyages, it will be scrapped 1 to 10 years in advance according to the deadline set by the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the 1978 Protocol.

4. The ship was dismantled at a domestic ship dismantling enterprise recognized by the relevant departments from June 5, 2010 to December 31, 2011. The identification of ship dismantling enterprises shall be carried out in accordance with the relevant provisions of the "Several Opinions on Regulating the Development of the Ship Dismantling Industry"

(Shangchanfa [2009] No. 614) jointly issued by the Ministry of Commerce and other eight ministries and commissions.

5. The owner of the ship to be scrapped shall, between June 5, 2010 and June 30, 2012, comply with the requirements of the national industrial policy and the "Basic Requirements and Evaluation Methods for Production Conditions of Ship Manufacturing Enterprises" (CB/T3000-2007) A Class II and above Class III shipbuilding enterprise signs a shipbuilding contract and builds a Chinese oil tanker that has obtained a classification certificate issued by the China Classification Society and is no less than the tonnage (gross tonnage) of the original scrapped ship.

6. The owners of newly built ships and scrapped ships are the same.

(2) The subsidy standard is determined based on the scrapped single-hull oil tanker and is calculated according to the following formula:

The amount of subsidy for a single ship = subsidy base × ship gross tonnage × ship age coefficient × ship type coefficient.

Among them: the subsidy base is 1,000 yuan;

The gross tonnage of the ship shall be determined according to the ship inspection certificate;

The age coefficient of the ship is calculated based on the actual age of the ship when the ship is dismantled and the ship ownership cancellation procedures are completed, and the number of years for early retirement is determined corresponding to the "Age Coefficient Table for Early Scraping of Old Transport Ships and Single-hull Oil Tankers" (Attachment 1);

Ship type coefficient: 1.5 for sea-going ships, 1.05 for inland river ships, and 0.6 for oil barges based on the above.

## Chapter 3 Application and Disbursement of Subsidy Funds

Article 6 Ship owners who apply for subsidy funds should fill in the "Application Form for Early Scraping of Old Transport Ships and Single-hull Oil Tankers" (Appendix 2) before dismantling the ship, and submit it to the city (districted) where the ship dismantling enterprise is located. The municipal (the same below)-level transportation department shall submit an application.

Article 7 During the ship dismantling process, the relevant municipal transportation authorities shall, together with the local maritime administration agency, assign no less than 2 staff members to supervise the dismantling on site, measure the actual ship, and take photos; and notify the relevant management departments as required. Provide for relevant cancellation procedures. The relevant management departments should keep files for dismantling of ships and documents.

After the ship dismantling is completed, the relevant municipal transportation authorities shall, together with the local maritime administration agency, assign no less than 2 staff members to conduct on-site inspection and acceptance, and prepare a "Ship Dismantling Completion Report" (Appendix 3).

The "Ship Dismantling Completion Report" is made in triplicate. The municipal transportation department where the ship dismantling enterprise is located and the ship owner each keep one copy. The municipal transportation department where the ship dismantling enterprise is located sends it to the city where the ship owner is located. A copy shall be kept for reference by the transportation authorities at all levels.

Article 8 The relevant provincial shipbuilding industry authorities shall negotiate with the relevant provincial shipbuilding industry authorities in accordance with the requirements of Class II and Class III or above shipbuilding enterprises in compliance with national industrial policies and the "Basic Requirements and Evaluation Methods for Production Conditions of Shipbuilding Enterprises" (CB/T3000-2007). The investment authorities at the provincial level will propose a list of qualified shipbuilding companies, which will be announced to the public after the Ministry of Industry and Information Technology solicits opinions from relevant departments.

Article 9 After signing a new shipbuilding contract with a shipbuilding enterprise, the ship owner who applies for subsidy funds shall report the relevant information to the municipal shipbuilding industry management department where the shipbuilding company is located, and the municipal shipbuilding industry management department shall report it to the provincial shipbuilding industry management department. Written filing.

Article 10 After the scrapped ships have been dismantled and the construction of new ships has been completed, the ship owners who apply for subsidy funds shall submit the

following materials to the municipal transportation and finance authorities where they are located:

(1) "Application Form for Subsidy Funds for Advance Scraping and Renewal of Old Transport Ships and Single-Hull Oil Tankers" (Attachment 4);

(2) Originals of transportation license and industrial and commercial business license (if the ship owner is a natural person, ID card must be provided) and their copies;

(3) The original "Ship Dismantling Completion Report" for the dismantled ship and the original and photocopy of the ship's ownership cancellation registration certificate;

(4) The original and photocopy of the shipbuilding contract signed with the shipbuilding enterprise, the ship ownership registration certificate and the classification certificate of the newly built ship.

The municipal transportation and finance authorities shall review the relevant materials submitted by the applicant in accordance with these Measures. If they meet the conditions, they shall be submitted to the provincial transportation and finance authorities for approval within the specified time.

## Chapter 4 Release and Allocation of Central Subsidy Funds

Article 11 The relevant provincial transportation authorities, together with the financial departments at the same level, shall submit pre-appropriated subsidy funds for the current year to the Ministry of Transport and the Ministry of Finance before May 31 of each year based on the scope and standards of subsidies stipulated in these Measures and taking into account local conditions. The application documents will be reviewed and summarized by the Ministry of Transport and submitted to the Ministry of Finance for approval. The application documents should state the amount of subsidy funds applied for and the number and gross tonnage of ships to be dismantled in advance.

The Ministry of Finance pre-allocates subsidy funds to the relevant provincial financial departments based on the subsidy fund applications reported by various localities.

Article 12 The relevant provincial financial authorities shall, based on the approval of subsidy funds for various municipalities, release the subsidy funds to the municipal financial authorities in the form of special transfer payments. The municipal finance department shall pay

the subsidy funds to the ship owner within the specified time and, together with the municipal transportation department, report the relevant information to the provincial finance and transportation departments for reference. The payment management of subsidy funds shall be implemented in accordance with the relevant provisions of the fiscal treasury management system.

Article 13 The relevant provincial transportation authorities shall, together with the financial departments at the same level, submit subsidy funds to the Ministry of Transport and the Ministry of Finance before July 31, 2011, January 31, 2012 and July 31, 2012 respectively. The distribution status every six months will be summarized by the Ministry of Transport and reported to the Ministry of Finance, with copies sent to the Ministry of Industry and Information Technology and the National Development and Reform Commission. After the implementation of the subsidy policy for the scrapping and renewal of old transport ships and single-hull oil tankers expires, the Ministry of Finance and the relevant provincial financial authorities will uniformly liquidate the funds.

## Chapter 5 Supervision and Management

Article 14 All relevant management departments must effectively strengthen the supervision and management of the use of subsidy funds in accordance with the division of responsibilities in these measures and clarify relevant responsibilities.

The Ministry of Finance, together with the Ministry of Transport, the Ministry of Industry and Information Technology, and the National Development and Reform Commission, organizes irregular spot checks on the arrangement and use of subsidy funds. For areas where the declaration information is untrue, the central government will deduct or withdraw the subsidy funds accordingly. For management agencies, units and individuals at all levels who violate regulations and intercept, misappropriate or defraud subsidy funds, relevant departments will punish them in accordance with the "Regulations on Punishments for Fiscal Illegal Acts" (State Council Order No. 427) and other relevant laws and regulations.

Article 15 The distribution of subsidy funds shall be subject to supervision by the masses and society.

# Chapter 6 Supplementary Provisions

Article 16 The relevant provincial financial departments may work with the transportation, shipping industry, development and reform authorities at the same level to formulate specific implementation measures based on these measures.

Article 17 These Measures are interpreted by the Ministry of Finance, the Ministry of Transport, the Ministry of Industry and Information Technology, and the National Development and Reform Commission.

Article 18 These Measures shall come into effect from the date of promulgation.

Appendices:

1. Age coefficient table for early scrapping of old transport ships and single-hull oil tankers (omitted)

2. Application form for early scrapping of old transport ships and single-hull oil tankers (omitted)

3. Ship dismantling completion report (omitted)

4. Application form for early scrapping and renewal subsidy funds for old transport ships and single-hull oil tankers (omitted)

# 北京法院法规检索

按 索引信息+正文 ∨　显示　　本篇关键字搜索：[　　　　] 搜索

【法规标题】老旧运输船舶和单壳油轮报废更新补助专项资金管理办法
【法规文号】4
【发布日期】20110104
【实施日期】20110104
【发布部门】财政部 交通运输部 工业和信息化部 国家发展和改革委员会
【效力等级】

【正文】

**财政部等部门关于印发《老旧运输船舶和单壳油轮报废更新补助专项资金管理办法》的通知**

**财建[2011]4号**

各省、自治区、直辖市、计划单列市财政厅（局）、交通运输厅（局、委），船舶工业主管部门、发展改革委，交通运输部各直属海事局，中国船级社：

根据《国务院关于印发船舶工业调整和振兴规划的通知》（国发[2009]21号）和《关于印发促进老旧运输船舶和单壳油轮报废更新实施方案的通知》（交水发[2010]273号）有关规定，经国务院批准，中央财政设立了老旧运输船舶和单壳油轮报废更新补助专项资金。为加强资金管理，提高资金使用效益，特制定《老旧运输船舶和单壳油轮报废更新补助专项资金管理办法》。现印发给你们，请遵照执行。

附件：老旧运输船舶和单壳油轮报废更新补助专项资金管理办法

财政部
交通运输部
工业和信息化部
国家发展改革委
二○一一年一月四日

附件：

**老旧运输船舶和单壳油轮报废更新补助专项资金管理办法**

**第一章 总则**

**第一条** 根据《国务院关于印发船舶工业调整和振兴规划的通知》（国发[2009]21号）和《关于印发促进老旧运输船舶和单壳油轮报废更新实施方案的通知》（交水发[2010]273号，以下简称《实施方案》）有关规定，为规范老旧运输船舶和单壳油轮报废更新补助专项资金的管理，特制定本办法。

**第二条** 本办法所称老旧运输船舶和单壳油轮报废更新补助专项资金（以下简称补助资金），是指中央财政通过一般预算安排的，用于鼓励老旧运输船舶和单壳油轮提前报废更新的补助资金。

**第三条** 补贴对象是符合本办法规定条件，在2010年6月5日至2012年6月30日期间将老旧运输船舶和单壳油轮拆解报废并购建新船的船舶所有人。

**第二章 补贴范围和标准**

**第四条** 老旧运输船舶提前报废更新的补贴范围和标准如下：

（一）申请老旧运输船舶提前报废更新补贴的，应同时符合下列条件：

1.拟报废的船舶为2010年6月5日前已取得国内、国际运输经营资格的1000总吨以上（含1000总吨）的中国籍老旧运输船舶（单壳油轮除外）。

2.该船舶持有有效船舶检验、船舶登记、船舶营运等证书。

3.该船舶按交通运输部《老旧运输船舶管理规定》（交通运输部令2009年第14号）规定的强制报废船龄提前2年—10年（含2年、10年）拆解。

4.该船舶于2010年6月5日至2011年12月31日在有关部门认可的国内船舶拆解企业拆解完毕。船舶拆解企业的认定按照商务部等八部委联合发布的《关于规范发展拆船业的若干意见》（商产发[2009]614号）有关规定执行。

5.拟报废船舶的所有人在2010年6月5日至2012年6月30日期间，在符合国家产业政策及《船舶生产企业生产条件基本要求及评价方法》（CB／T3000—2007）要求的二级III类以上船舶制造企业签订造船合同，并建成取得中国船级社颁发的入级证书且不小于原报废船舶吨位（总吨）的中国籍船舶。

6.新建船舶与报废船舶的船舶所有人相同。

（二）补贴标准根据所报废船舶确定，按以下公式计算：

单船补贴金额＝补贴基数×船舶总吨×船龄系数×船舶类型系数。

其中：补贴基数为0.1万元；

船舶总吨按船舶检验证书核定为准；

船龄系数按船舶拆解办理船舶所有权注销手续时的实际船龄计算提前淘汰的年限，对应《老旧运输船舶和单壳油轮提前报废船龄系数表》（附1）确定；

海船船舶类型系数：客船、液化气船、化学品船、油船、推（拖）轮为1.5，集装箱船、冷藏船、多用途船、滚装货船为1.2，散货船、杂货船、其他货船为1.0，驳船为0.6；

内河船舶类型系数：在同类型海船基础上乘0.7。

**第五条** 单壳油轮提前报废更新的补贴范围和标准如下：

（一）申请单壳油轮提前报废更新补贴的，应同时符合下列条件：

1.拟报废的船舶为2010年6月5日前已取得国内、国际运输经营资格的600载重吨以上（含600载重吨）的中国籍单壳油轮。

2.该船舶持有有效船舶检验、船舶登记、船舶营运等证书。

3.该船舶为国内航行单壳油轮，并在交通运输部《关于发布提前淘汰国内航行单壳油轮实施方案的公告》（2009年第52号）确定的淘汰范围内的，按该公告规定的限期淘汰时间提前1年—10年（含1年、10年，下同）拆解；

该船舶为国内航行单壳油轮，但在《关于发布提前淘汰国内航行单壳油轮实施方案的公告》确定的淘汰范围以外的，按《老旧运输船舶管理规定》规定的强制报废船龄提前1年—10年拆解；

该船舶为国际航行单壳油轮的，按《经1978年议定书修订的1973年国际防止船舶造成污染公约》规定的限期淘汰时间提前1年—10年拆解。

4.该船舶于2010年6月5日至2011年12月31日在有关部门认可的国内船舶拆解企业拆解完毕。船舶拆解企业的认定按照商务部等八部委联合发布的《关于规范发展拆船业的若干意见》（商产发[2009]614号）有关规定执行。

5.拟报废船舶的所有人在2010年6月5日至2012年6月30日期间，在符合国家产业政策及《船舶生产企业生产条件基本要求及评价方法》（CB／T3000—2007）要求的二级III类以上船舶制造企业签订造船合同，并建成取得中国船级社颁发的入级证书且不小于原报废船舶吨位（总吨）的中国籍油轮。

6.新建船舶与报废船舶的船舶所有人相同。

（二）补贴标准根据所报废单壳油轮确定，按以下公式计算：

单船补贴金额＝补贴基数×船舶总吨×船龄系数×船舶类型系数。

其中：补贴基数为0.1万元；

船舶总吨按船舶检验证书核定为准；

船龄系数按船舶拆解办理船舶所有权注销手续时的实际船龄计算提前淘汰的年限，对应《老旧运输船舶和单壳油轮提前报废船龄系数表》（附1）确定；

船舶类型系数：海船为1.5，内河船为1.05，油驳在上述基础上乘0.6。

### 第三章 补助资金的申请与发放

**第六条** 申请补助资金的船舶所有人在对船舶进行拆解前，应填写《老旧运输船舶和单壳油轮提前报废申请表》（附2），向拆解船舶企业所在市（设区的市，下同）级交通运输主管部门提出申请。

**第七条** 船舶拆解过程中，有关市级交通运输主管部门应会同当地海事管理机构指派不少于2名工作人员现场监督拆解，对实船进行测量，拍摄照片；并通知相关管理部门按规定办理有关注销手续。拆解船舶的资料和证件，相关管理部门应建档留存。

船舶拆解完工后，有关市级交通运输主管部门应会同当地海事管理机构指派不少于2名工作人员进行现场验收，并编制《船舶拆解完工报告书》（附3）。

《船舶拆解完工报告书》一式三份，船舶拆解企业所在地市级交通运输主管部门和船舶所有人各留存一份，船舶拆解企业所在地市级交通运输主管部门寄送船舶所有人所在地市级交通运输主管部门备查一份。

**第八条** 有关省级船舶行业主管部门按照符合国家产业政策及《船舶生产企业生产条件基本要求及评价方法》（CB／T3000—2007）规定的二级III类以上船舶制造企业的要求，商同级投资主管部门提出符合条件的船舶制造企业名单，经工业和信息化部征求有关部门意见后向社会公布。

**第九条** 申请补助资金的船舶所有人与船舶制造企业签订新造船合同后，应将有关情况报船舶制造企业所在地的市级船舶行业管理部门，市级船舶行业管理部门报省级船舶行业管理部门书面备案。

**第十条** 报废的船舶拆解完毕且新建船舶建造完成后，申请补助资金的船舶所有人，应当向其所在地市级交通运输、财政主管部门提交下列材料：

（一）《老旧运输船舶和单壳油轮提前报废更新补助资金申请表》（附4）；

（二）运输许可证、工商营业执照（船舶所有人为自然人的，提供身份证）原件及其复印件；

（三）拆解船舶的《船舶拆解完工报告书》原件和船舶所有权注销登记证书原件及复印件；

（四）与船舶制造企业签订的船舶建造合同、新建船舶的船舶所有权登记证书、入级证书的原件及复印件。

市级交通运输、财政主管部门应当依照本办法，对申请人提交的相关材料进行审核，符合条件的，应在规定的时间内报送省级交通运输、财政主管部门核准。

### 第四章 中央补贴资金的下达和拨付

**第十一条** 有关省级交通运输主管部门会同同级财政部门根据本办法规定的补贴范围及标准，结合本地情况，于每年5月31日前向交通运输部、财政部报送预拨当年补助资金申请文件，并由交通运输部审核汇总后报财政部审批。申请文件中应说明申请的补助资金数额及拟提前拆解的船舶艘数、总吨位。

财政部根据各地上报的补助资金申请情况向有关省级财政部门预拨补助资金。

**第十二条** 有关省级财政主管部门应当根据对各地市补贴资金的核准情况，将补贴资金以专项转移支付方式下达市级财政主管部门。市级财政部门应在规定的时间内向船舶所有人支付补助资金，并会同市级交通运输主管部门将有关情况报省级财政、交通运输主管部门备查。补贴资金的支付管理，按照财政国库管理制度有关规定执行。

**第十三条** 有关省级交通运输主管部门应会同同级财政部门分别于2011年7月31日、2012年1月31日和2012年7月31日前向交通运输部、财政部报送补助资金每半年的发放情况，由交通运输部汇总后报财政部，并抄送工业和信息化部、国家发展改革委。老旧运输船舶和单壳油轮报废更新补贴政策实施到期后，由财政部与有关省级财政主管部门对该项资金统一进行清算。

### 第五章 监督管理

**第十四条** 各相关管理部门要按照本办法的职责分工切实加强对补助资金使用的监督管理，明确相关责任。

财政部会同交通运输部、工业和信息化部、国家发展改革委对补助资金的安排和使用情况组织不定期重点抽查，对申报情况不真实的地区，中央财政将相应扣减或收回补贴资金。对违反规定、截留、挪用、骗取补助资金的各级管理机关、单位及个人，有关部门依据《财政违法行为处罚处分条例》（国务院令第427号）及其他有关法规进行处罚。

**第十五条** 补助资金的发放情况应当接受群众和社会监督。

### 第六章 附则

**第十六条** 有关省级财政部门可会同同级交通运输、船舶行业，发展和改革主管部门依据本办法制定具体实施办法。

**第十七条** 本办法由财政部商交通运输部、工业和信息化部、国家发展改革委负责解释。

**第十八条** 本办法自发布之日起实施。

附件：

1.老旧运输船舶和单壳油轮提前报废船龄系数表（略）

2.老旧运输船舶和单壳油轮提前报废申请表（略）

3.船舶拆解完工报告书（略）

4.老旧运输船舶和单壳油轮提前报废更新补助资金申请表（略）

附件：

老旧运输船舶和单壳油轮提前报废更新补助资金申请表.doc

老旧运输船舶和单壳油轮提前报废更新补助资金申请表.doc

老旧运输船舶和单壳油轮提前报废申请表.doc

老旧运输船舶和单壳油轮提前报废船龄系数表.doc

船舶拆解完工报告书.doc

老旧运输船舶和单壳油轮提前报废更新补助资金申请表.doc

老旧运输船舶和单壳油轮提前报废申请表.doc

老旧运输船舶和单壳油轮提前报废船龄系数表.doc

# EXHIBIT 25

# Hidden Harbors

## China's State-backed Shipping Industry

*By Jude Blanchette, Jonathan E. Hillman, Maesea McCalpin, and Mingda Qiu*          JULY 2020

## THE ISSUE

- Chinese companies are increasingly dominant across the maritime supply chain, aided by a complicated and opaque system of formal and informal state support that is unrivaled in size and scope.

- Combined state support to Chinese firms in the shipping and shipbuilding industry totaled roughly $132 billion between 2010 and 2018, according to CSIS analysis. This includes financing from state banks ($127 billion) and direct subsidies ($5 billion). Owing to data limitations and the opacity of China's political system, this conservative estimate does not include direct subsidies to unlisted firms, indirect subsidies, state-backed fundraising, preferential borrowing rates, and other nonmarket advantages from China's state capitalist system.

- While most analysis focuses on more traditional types of state backing, most notably direct subsidies, we find that China has evolved increasingly sophisticated financial tools to select and support winners that render our traditional understanding of China's state capitalist system largely outdated. Future research will be needed to understand Beijing's evolving playbook for supporting the global rise of strategically significant industries.

## THE RISE OF CHINA'S SHIPPING INDUSTRY

Chinese companies are increasingly dominant across the entire global maritime supply chain, controlling the world's second-largest shipping fleet by gross tons and constructing over a third of the world's vessels in 2019.[1] They also produce 96 percent of the world's shipping containers, more than 80 percent of the world's ship-to-shore cranes, and own seven of the ten busiest ports in the world (including Hong Kong).[2] Although still a nascent naval power, China has already become a dominant player in the commercial maritime space.

China's maritime rise has been driven by focused state support beginning in the early 2000s after China's accession to the World Trade Organization (WTO). The size and focus of Beijing's efforts accelerated after the 2008 financial crisis when the global maritime industry suffered a collapse in demand. Such support has provided Chinese firms with a strategic buffer from volatile market forces, helping Chinese companies to expand their global market share in shipbuilding and shipping finance by 10 percent and 15 percent, respectively, from 2008 to 2018.[3] China encouraged its already massive state-owned enterprises (SOEs) to consolidate, including support for a 2015 merger that made state-owned China Merchant Group the largest port and logistics company in the world and the 2016 merger of COSCO Group and China Shipping Group to create the world's third largest shipping firm.[4] China also pumped

**CSIS** | CENTER FOR STRATEGIC & INTERNATIONAL STUDIES

# China's Shipping Industry Rises with Ocean of State Support

**2010–2018**
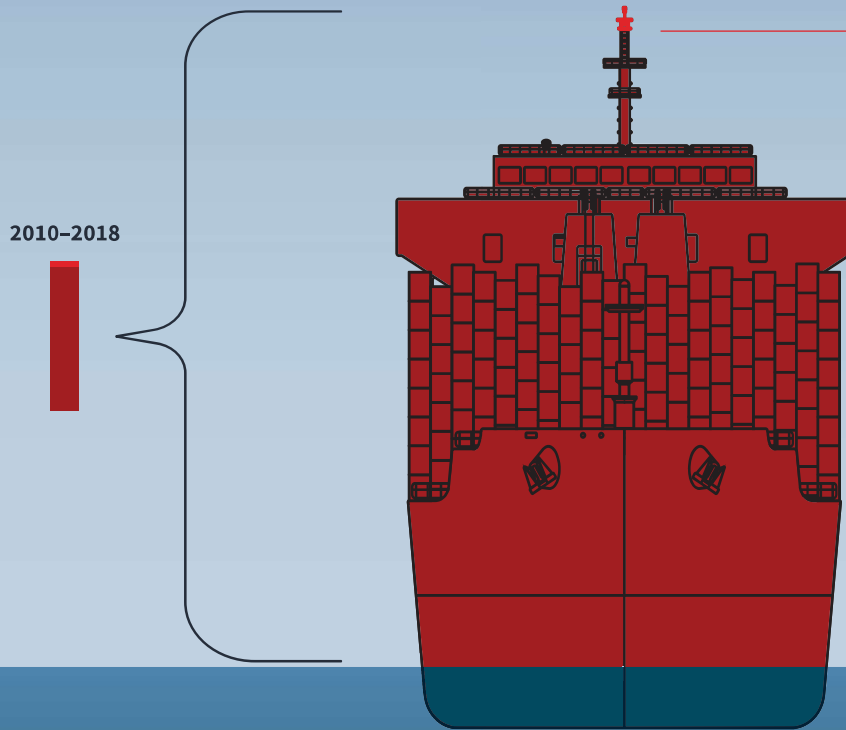
### Direct Subsidies  *$5B*

China provides a wide variety of cash payments and rebates to its enterprises to offset costs, boost revenue, encourage the adoption of new technology, and aid ailing firms. Examples include subsidies for exports, insurance, research and development, employment, and loan interest, as well as value-added tax rebates, income tax exemptions, and reduced port fees.

### State Financing  *$127B*

China's state banks have taken a dominant role in the shipping sector through lending and leasing to both domestic and international firms. This funnels new orders to Chinese shipbuilders and expands China's ownership of the world's merchant fleet.

## OTHER STATE SUPPORT

### State Fundraising

The Chinese government directs SOEs to support each other through a variety of means, including low-interest loans with preferential terms, debt forgiveness, government-mandated equity infusions, and low-interest bond issuance.

### Indirect Subsidies

China provides subsidies and non-monetary support to adjacent industries (e.g., steel, oil, electricity, and real estate) that translate into reduced costs for shipping and shipbuilding companies.

### Barriers for Foreign Firms

China deters foreign firms from competing with or supplying Chinese shipping and shipbuilding companies through domestic input requirements, import substitution, and export restrictions.

### Consolidation Policies

China consolidates its SOEs to promote global dominance in strategic industries. In 2015, for example, the government approved a merger to give it the largest shipping and logistics company in the world.

### Forced Tech Transfer & IP Theft

Foreign firms are required to transfer technology in order to secure market access, while state-sponsored hacking and commercial espionage have targeted foreign intellectual property (IP), including maritime technology.

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financial support into the sector and set ambitious domestic and global targets. The "Made in China 2025" strategic plan designates maritime equipment and high-tech vessel manufacturing as one of ten priority sectors. China's Belt and Road Initiative, announced in 2013, has deepened preexisting market access and secured new beachheads for Chinese shipping companies abroad. Led by state-owned shipping operators China COSCO Shipping Corporation (COSCO SHIPPING) and China Merchant Group, Chinese companies have invested an estimated $11 billion into overseas ports between 2010 and 2019, including 25 projects across 18 countries.[5]

China's growing maritime power has far-reaching implications for the United States. With 90 percent of global trade traveling by sea, the United States has both commercial and strategic interests in maintaining robust maritime capabilities. The stakes are highest in the event of a military contingency. Current and former U.S. officials have warned that the United States could face maritime logistics challenges during a major conflict given the shrinking size of the U.S. merchant marine fleet.[6] China, in contrast, could draw upon superior numbers of state-owned vessels and the world's largest maritime workforce. COSCO SHIPPING is widely recognized as the maritime supply arm of the People's Liberation Army (PLA) and has provided logistical support to the PLA Navy's escort operations in the Gulf of Aden since 2008. As the U.S. naval strategist Alfred Thayer Mahan famously observed, "Commercial value cannot be separated from military in sea strategy, for the greatest interest of the sea is commerce."[7]

In order for the United States to fashion a strategic response, it must first have an accurate assessment of the forces driving China's shipping sector. Previous studies have attempted to quantify the direct subsidies that Chinese shipping companies receive, but they have provided a partial picture at best, owing to the significant gaps in available and reliable data.[8] The Chinese state provides support in numerous direct and indirect ways, including subsidies in cash payments, cheap financing and fundraising, tax incentives and concessions, barriers for foreign firms, state-directed industrial consolidation, forced technology transfer, and intellectual property theft, among others.[9] Some of these measures can be quantified from open sources, while others remain hidden behind China's opaque lending and corporate reporting practices.

Acknowledging these limitations, this brief explores the scale and scope of China's state support for its shipping and shipbuilding industry.

## SUBSIDIES

The most direct way Beijing supports its shipping and shipbuilding industry is through traditional subsidies, which listed firms disclose on their annual reports. For the 35 listed Chinese shipping and port management firms between 2007 and 2019 (the earliest time period for which complete data was available), Beijing provided $3.4 billion in total subsidies while the 12 listed Chinese shipbuilding companies received a total of $2.1 billion.

Subsidies directly given from the Chinese government typically come in two forms: (1) cash payments that can offset business costs and boost revenue and (2) rebates for taxes and levies. Firms utilize these subsidies in a number of ways, including purchasing technology that is not yet commercially profitable, covering production costs during down markets, boosting research and development (R&D), and promoting the use of domestic components.

Subsidies come from different levels of the government. At the central level, the Ministry of Transportation plays the largest role in directing subsidies, given its responsibility for setting the broad policy direction of the industry and developing and regulating China's maritime transportation sector. At the local level, subsidy policies are used as tools to compete against other cities for investment, trade, and employment.
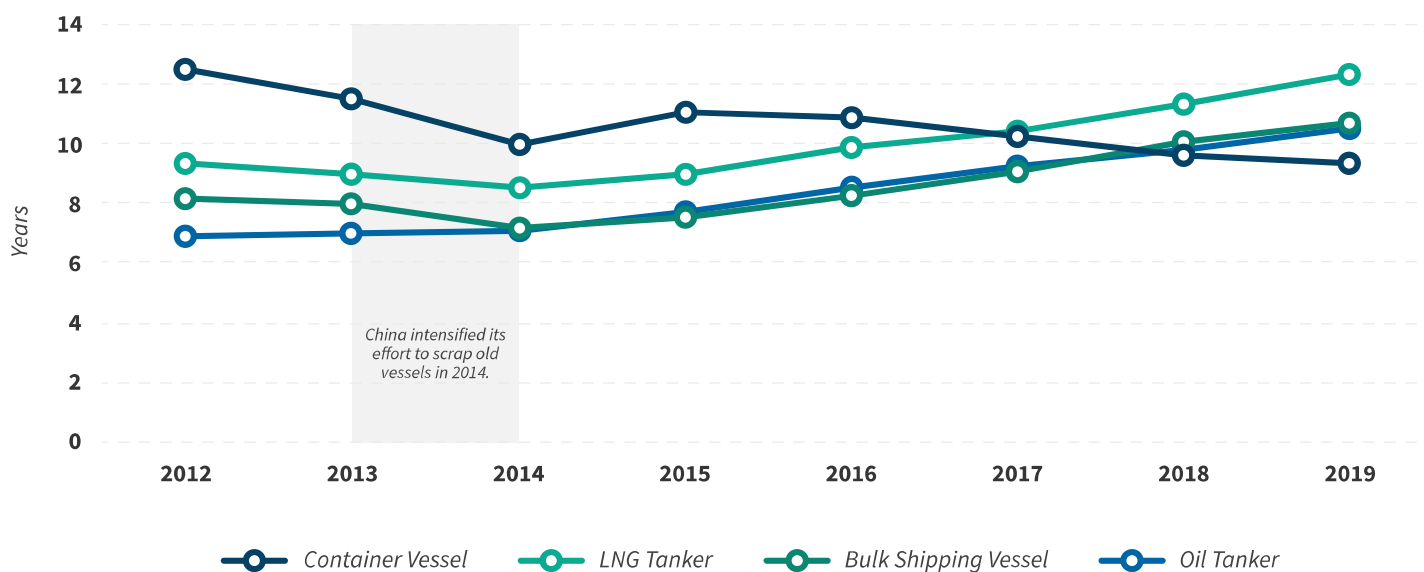
Interestingly, while the vast majority of China's shipping industry is state-owned, direct subsidies appear evenly spread between public and private firms as a percentage of overall revenue. From 2007 to 2019, for example, direct subsidies represented 1.2 percent of total revenue generated by state-owned shipping lines, while the two listed private firms enjoyed direct subsidies accounting for 1.4 percent of their total revenue. Yangzijiang Shipbuilding Holdings, a former SOE that is now privately-owned and Singapore-listed, received direct subsidies that amounted to 1.8 percent of its revenue, a ratio that was even higher than the state-owned shipbuilders.

## CHINA'S "SCRAP AND BUILD" SUBSIDY

Following the 2008 financial crisis, the global shipbuilding industry struggled in the face of collapsing global demand. In China, many shipyards found their foreign customers unable to pay for completed vessels and overall inventories increased as Chinese shipyards continued to build vessels in excess of demand.[10]

To further stimulate demand, Beijing introduced a

## Average Age of Chinese-owned Ships



*China intensified its effort to scrap old vessels in 2014.*

Legend: Container Vessel, LNG Tanker, Bulk Shipping Vessel, Oil Tanker

*Source: China's Ministry of Transport via the WIND Financial Terminal*

"scrap and build" subsidy in 2010, which allowed Chinese firms to upgrade their fleet at a significantly discounted cost.[11] Under the original terms of the subsidy, shipping companies received all of the subsidy only after they demolished their aging ships and built replacement vessels. Beginning in 2014, however, companies could receive subsidies before they commissioned a new ship, which provided an even greater incentive to scrap their older vessels, essentially allowing companies to front-load the subsidy.[12]

The subsidy helped significantly boost company revenues. In 2014, COSCO Holding (a subsidiary of COSCO Group) received $194 million from the scrap and build subsidy when its year-end profit totaled only $51 million. That same year, China Shipping Development received $66 million from the scrap and build subsidy while its year-end profit stood at $44 million.[13]

Although the Chinese government eventually phased out the subsidy program, while it was in operation, it helped boost not only China's fleet modernization but also domestic shipbuilding and shipbreaking yards, which were the downstream recipients of government support. While the Chinese government never published numbers on the total amount spent on the subsidy, one estimate holds that between 2010 and 2015 it cost the Chinese government $1.2 billion.[14] We

believe this is a significant underestimation. Indeed, according to annual reports, COSCO Group and China Shipping Group (now merged with COSCO Group to form COSCO SHIPPING) alone received $1 billion from 2014-2015, which indicates that the actual amount spent was far higher.[15]

## COST OF BORROWING

While there is no precise calculation of the "implicit guarantee" advantage Chinese shipping and shipbuilding firms enjoy when they borrow in domestic financial markets, there is ample evidence that such advantages exist. Utilizing existing research on the borrowing advantage SOEs receive in general, we can make some initial calculations. Using data from the WIND Financial Terminal, we find that there is currently $20.9 billion in outstanding bonds issued by Chinese shipping and shipbuilding SOEs ($15.1 billion for shipping and $5.8 billion for shipbuilding). A study from the research firm Gavekal Dragonomics estimates that, in comparison to their privately-owned counterparts, Chinese SOEs pay on average 0.5 percent lower interest rates for their outstanding bonds.[16] For the Chinese shipping and shipbuilding SOEs, this would translate into more than $100 million in lower repayment costs each year, an amount equal to 27 percent of the overall direct subsidies that China's listed SOEs in the shipping and shipbuilding industry received in 2019.

## Equity Infusion: Subsidy by Another Name? ($B)



**China State Shipbuilding Company**
Debt-For-Share Swap in 2018

**China Shipbuilding Industry Company**
New Strategic Investors in 2017

**COSCO SHIPPING Energy Transportation**
Targeted Offering in 2017

**COSCO SHIPPING Holding**
Targeted Offering in 2017

0   0.5   1   1.5   2   2.5   3   3.5

■ *Direct Subsidies Received by the Company from 2015 to 2019*    ■ *Value of Equity Infusion from the State-owned Sector*

*Source: Based on companies' public disclosures and authors' calculations*

## EQUITY INFUSIONS

The sale of company equity to outside investors is common in all developed capitalist economies. Indeed, China's shipping and shipbuilding SOEs have been active in capital markets, engaging in transactions that appear identical in form and substance to other major listed corporations. Yet these SOEs can sell equity under the guidance of their ultimate owner and regulator, the State-owned Assets Supervision and Administration Commission (SASAC), who not only supports such moves, but more importantly, often initiates the investment or orchestrates the investors.

Consider the example of China's largest shipping conglomerate, COSCO SHIPPING. In 2017, one of its listed subsidiaries, COSCO SHIPPING Holding, announced its intention to offer around 2 billion shares to fund the purchase of 20 ships that were then under construction by the state-owned shipyards with an expected 2018-19

delivery date. Under the direction of SASAC, eight SOEs purchased equity in the company totaling $1.09 billion. Again, while the sale of equity is a central feature of global capital markets, private companies do not enjoy a partner such as SASAC who can facilitate such a transaction, thereby directing individual SOEs to invest in other SOEs. By doing so, SASAC can essentially shift funds to companies or industries that are deemed strategically important or would otherwise struggle under prevailing market conditions.

## LENDING AND LEASING

In just over a decade, China has become the preeminent financial power in the shipping industry. Following the 2008 global financial crisis, European banks withdrew from the shipping sector. Some folded altogether, and those that remained scaled backed their loan portfolios, raised rates, and made qualifying criteria more stringent. Chinese banks rapidly assumed a greater role. In 2008, there was not a

## The Rise of Chinese Shipping Finance 2008–2018

| No. | Top Companies (2008) | Portfolio ($B) | Country | Top Companies (2018) | Portfolio ($B) | Country |
|-----|----------------------|----------------|---------|----------------------|----------------|---------|
| 1 | HSH Nordbank | $ 58.0 | Germany | China Exim | $ 17.5 | China |
| 2 | Commerzbank | $ 38.8 | Germany | BNP Paribas | $ 17.1 | France |
| 3 | DNB (NOR) | $ 36.0 | Norway | KfW | $ 16.5 | Germany |
| 4 | RBS | $ 30.0 | United Kingdom | Bank of China | $ 16.0 | China |
| 5 | KfW | $ 20.7 | Germany | SuMi Trust | $ 14.0 | Japan |

*Source: Petrofin's Global Bank Research Annual Publications*

## Chinese versus U.S. Shipping Finance (Total Portfolios $B)



Legend: ■ U.S. Shipping Loans ■ China Shipping Loans ■ China Financial Leasing
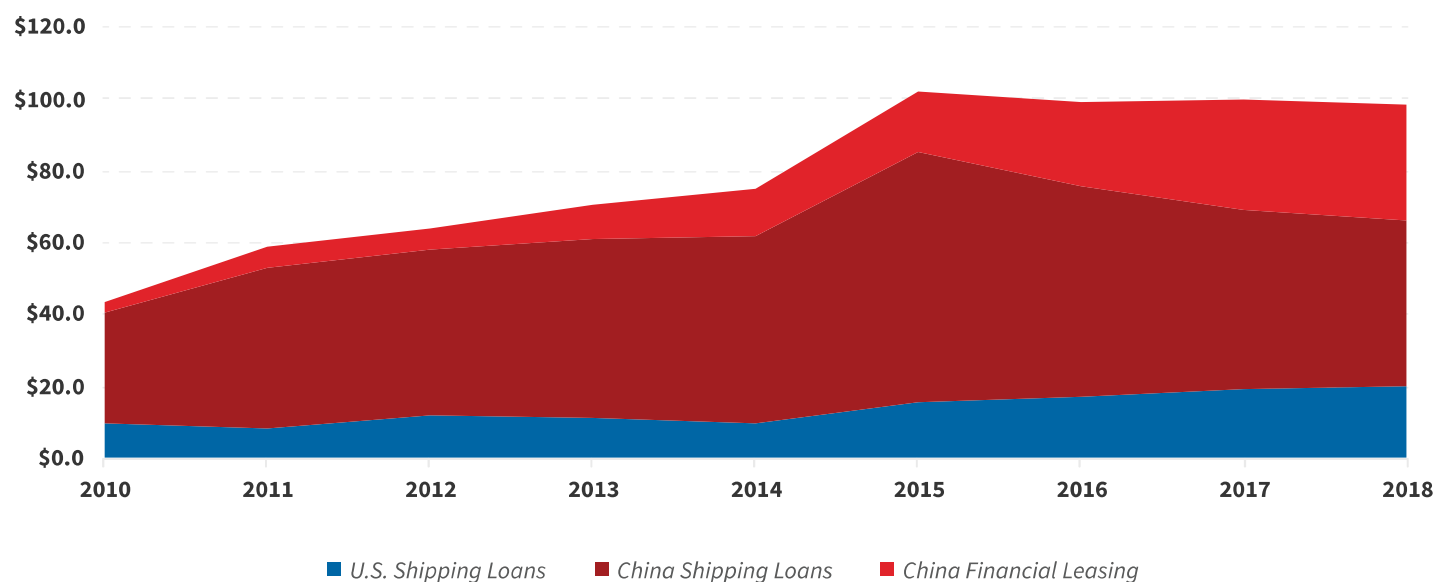
*Source: Data compiled by authors from Petrofin Global Bank Research and Marine Money Annual League Tables.*

single Chinese bank among the top 15 global shipping financiers.[17] By 2018, 3 of the top 15 shipping portfolios, including 2 of the top 5, were held by Chinese banks.[18]

China's biggest shipping lenders are state-owned banks. China Export-Import Bank (China Exim) and Bank of China were the first and fourth largest shipping lenders globally in 2018—the most recent year for which data was available—with portfolios totaling $33.5 billion. Among the banks' stated goals are supporting China's foreign trade and investment and helping to "realize the Chinese dream of national rejuvenation," a signature slogan of Chinese leader Xi Jinping, underscoring their state-directed rather than purely commercially oriented approach.[19] They provide financing for foreign-owned shipping companies as well, but those borrowers are required to purchase Chinese-built ships. This is a major benefit for companies, international and domestic, looking to expand their fleets, but it also serves as an important pillar of support for China's largely state-owned domestic shipbuilding sector.

To be sure, China is not the only country to finance its exports. Indeed, the role of export credit agencies in shipping has expanded considerably since the global financial crisis even outside of China. However, the scale of China's support is unmatched. In 2018, China Exim—the world's largest shipping financier—provided $39 billion in official export credits (across all industries), a total that exceeds the world's

next three largest export credit agencies combined.[20]

Chinese banks also provide significant support through leasing programs. In 2007, the China Banking Regulatory Commission (since restructured to become the China Banking and Insurance Regulatory Commission) allowed the first batch of companies to begin leasing. Among the early adopters were the Industrial and Commercial Bank of China (ICBC), China Merchants Bank, Bank of Communications, and China Minsheng Bank. Now China's top four financial leasing companies, their combined shipping portfolios have grown from around $6 billion in 2011 to $32 billion in 2018.

Leasing can be an attractive option for companies that lack access to direct financing. Rates are higher, but the terms are longer, and leases can also provide tax and accounting advantages, particularly to Chinese firms.[21] Leasing also provides much-needed cash, through sale-and-lease-back schemes, to shippers who suffer from shortages in liquidity and have risk maintaining their operations.[22]

Between 2010 and 2018, the new business volume of China's state-owned banks and leasing companies totaled an estimated $127 billion.[23] This is a conservative estimate, and sparse data make it difficult to make direct comparisons relative to Western counterparts. However, the growth of China's total lending portfolios combined with a dramatic contraction in European lending makes China's

growth clear. In 2010, Germany, the United Kingdom, and Scandinavia were out-lending China by a considerable margin, and Germany topped the list with $154 billion in cumulative portfolios. By 2018, China was leading all three countries to take the top position while Germany's portfolios had shrunk to only $38 billion. The change underscores how China has stepped up new lending to fill the financing gap as foreign banks have retreated.

While some foreign companies certainly benefit from China's rising financial largesse in the shipping sector, Beijing's encouragement of domestic financial institutions to support its shipping sector through loans and financing channels new orders to Chinese shipbuilders and expands China's ownership of the world's merchant fleet.[24] Between 2010 and 2019, China's shipping capacity expanded four-fold, overtaking Japan in 2018 to become the world's second-largest ship-owning country (in gross tons).[25]

## FAVORABLE REGULATORY AND LEGAL TREATMENT

While outside scrutiny remains focused on China's more overt support for domestic companies (state-owned and non-state-owned alike), Beijing is increasingly turning to more sophisticated tools to boost the competitive and strategic position of its firms, including making regulatory adjustments that tilt the playing field in favor of preferred firms. Consider a recent announcement issued jointly by the Ministry of Transportation and the Ministry of Commerce, among other government bodies, calling for Chinese companies to utilize "cost, insurance, freight" (CIF) for export and "free on board" (FOB) for imports. Put simply, if a company exports on CIF terms, it means it arranges the transport, whereas if it exports on FOB terms, it is the importer who maintains cargo control. By making this announcement, Beijing is seeking to empower Chinese firms both in how export and import decisions are made, whereas most other advanced economies leave such decisions to the market.

Similarly, Beijing is helping domestic firms bulk-up via mergers and acquisitions (M&A) in ways that would be all but impossible for foreign firms both in China and in their home countries where more restrictive antimonopoly laws limit anticompetitive behavior. Consider the example of COSCO Group and China Shipping Group, China's two largest shipping conglomerates, which were merged in 2016. In 2018, this newly formed entity then acquired the Hong Kong-listed Orient Overseas Container Line, creating a domestic and regional behemoth. While the Committee on Foreign Investment in the United States (CFIUS) ultimately signed-off on the deal, it's unlikely that any U.S. or European firm could have engaged in a similar scaling-up without running afoul of competition regulators. In China, however, SOEs are urged to scale in terms of operations and balance sheets with little apparent concern for possible anticompetitive outcomes.

## OBSERVATIONS AND FURTHER RESEARCH

China's rise in the wake of the 2008 financial crisis underscores the need to closely monitor strategic sectors in today's uncertain economic environment. The financial stress from the Covid-19 pandemic is making companies vulnerable to foreign M&A and investment. The shipping sector's experience after 2008 is a cautionary tale of what happens when Western governments become distracted by domestic concerns while China doubles down on its global expansion.

To be sure, not all of these activities are harmful. Some Western firms benefit from access to finance from Chinese banks. Others benefit from low-cost containers, cranes, and other supporting maritime equipment. More generally, consumers benefit from the cheap transport of goods. In the long run, however, massive Chinese government support dissuades global innovation in strategic sectors by distorting markets and price structures, allowing Chinese firms to capture more business even with inferior technology and service.

Additional research on Chinese government financing and methods for coordinating Chinese firms would help clarify the scope and scale of this challenge and formulate policies to respond to it. In strategic areas such as shipping, the United States needs to strike a balance and maintain sufficient capabilities of its own.

## METHODOLOGY

Direct subsidies were calculated based on data reported by 47 listed companies. As of 2019, there are 11 Chinese shipping companies, 24 Chinese port management companies, and 12 Chinese shipbuilding companies listed in the stock markets in China and overseas. They disclose direct subsidies in their annual reports. 2007 is the earliest year for which data was available in annual reports via the WIND Financial Terminal.

The new business volume of China's state-backed banks and leasing companies was estimated by summing their total portfolios based on data from sources including Marine Money, Smarine, Petrofin, other industry presentations,

and outlets such as The Wall Street Journal. This includes financial institutions that are known to be wholly or partly state-owned or owned by Chinese SOEs. When conflicting numbers were reported across sources, decisions about accuracy were made based on the best judgment of the research team. To calculate new lending, the sum of their total portfolios was assumed to have an annual runoff of 20 percent for loans and 10 percent for leasing based on an estimated average of 5-year and 10-year loan and lease periods respectively. New lending was then calculated by taking the difference between a given year's total portfolio after runoff and the next year's total portfolio.

For years in which the total portfolio was not known, it was calculated where possible based on known new lending data for that year, the next year's portfolio, and an estimated runoff of either 20 or 10 percent for lending and leasing respectively. For years in which neither new lending nor total portfolio data was available for a given bank, new lending was assumed to be zero. This was accomplished by entering that year's total portfolio as the sum of the next year's portfolio plus runoff. In this way, CSIS estimates are likely conservative relative to actual lending. ■

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# EXHIBIT 26

KraneShares

# China's 12th Five-Year Plan

by Fan Gang & HE Liping


View of CCTV Building
Beijing, China

### What is the Five-Year Plan?

The Five Year Plan is a strategic blueprint issued by the Chinese government providing a closely followed framework of economic policies and priorities.

### Why is the Five-Year Plan Important?

The implementation of previous Five Year Plans have proven to be watershed events which have significantly altered the direction of China's economy. The 12th Five Year Plan provides every indication that the effects will be just as dramatic.

### What is the 12th Five Year Plan?

The Chinese Government's 12th Five Year Plan was implemented to focus on transforming China from an export driven economy to one built upon consumer driven growth. In order to bring this change about the Five Year Plan has identified key industries to target for development and support.

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Dr. Fan Gang is one of China's most influential economists and a respected adviser to the country's leadership on economic reform and strategic development. He is an expert in the macroeconomics of long-term development, international trade and currency, foreign relations and China's regional integration within Asia. He speaks on China's financial risk and financial systems reform, foreign exchange regimes and revaluation, and on China's economic reform and globalization.

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# History of the Five Year Plans

The People's Republic of China, shortly after its establishment in 1949, decided to adopt a Soviet-styled, socialistic, centrally planned system. A five-year plan was then thought to be the best catalyst for and calibration of centralized decision-making and national resource mobilization for a medium-term period. In 1952, a special central government body was established in charge of the formulation and implementation of a five-year plan. The agency was called the PRC State Planning Commission, directly under the State Council. The head of the SPC was usually a vice premier or an equivalent. At the end of 1952 the first Five-Year Plan, for 1953-1957, was endorsed and rigorously implemented during the period.

The first FYP was almost entirely industry-focused, and in particular, largely oriented toward the establishment of the defense industry. More than 100 major heavy industry complexes and factories were constructed throughout the country, many of which received Russian aid and technical assistance.

*The first FYP became the milestone of the young People's Republic's industrial development, and the government often praised it for its role in laying the foundation of modern Chinese industrialization.*

As China under Mao gradually distanced itself from its alliance with Russia and began to seek its own development in a more alternative, independent, way, subsequent FYPs differed from their predecessor in content and methodology. The second five-year plan was loosely formulated for 1958-1962, but 1958 and 1959 were the years of the so-called "Great Leap Forward", which was Chairman Mao's inspiration and served effectively as a disturbance to the original second FYP.

The failures of the "Great Leap Forward" and the natural disasters of the early 1960s prompted the Chinese government to retreat from its ambitions and to conduct a major economic adjustment in 1963-1965. After that, China resumed its FYPs and subsequently introduced three more: the third FYP, for 1966-1970; the fourth FYP, for 1971-1975; and the fifth FYP, for 1976-1980. But all these FYPs were also greatly disturbed or even interrupted by the "Great Cultural Revolution" (1966-1976), another major political campaign initiated by Chairman Mao.

From the early 1980s, the Chinese government tried to treat the FYP more seriously than before, and intended to extend its content to issues such as social development. However, these efforts were complicated by Deng Xiaoping's reform initiatives, which included granting more autonomy and freedom to enterprises and regional governments. This was most apparent in the four consecutive FYP periods: the sixth FYP, for 1981-1985; the seventh, for 1986-1990; the eighth, for 1991-1995; and the ninth, for 1996-2000.

Since the mid-1990s, the Chinese government has decided to move toward a "socialist market economy" through which indicative plans are to replace the older, compulsory ones. Economic relations between the central and regional governments have also been reshaped, with the former regaining both power and leverage.

The three most recent FYPs have been formulated in this manner. The tenth FYP, for 2001-2005, first called for "industrial restructuring" or "making an adjustment in economic structures", and the general spirit has been reiterated in the eleventh FYP, for 2006-2010, and twelfth FYP, for 2011-2015.

*Also notable is that beginning with the eleventh FYP, its Chinese name has changed from " ji-hua" (plan) to "gui-hua" (program or projection) in order to highlight its indicative nature.*

Both the eleventh and twelfth FYPs are the result of comprehensive internal consultation among virtually all government bodies, at the national and provincial levels. The content has broadened vastly, and the development objectives have been expanded on all fronts.

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# The Implementation of the Five-Year Plan

The formation of an FYP is a year-long process, consisting of multiple rounds of intensive and extensive discussions and consultation. The process includes virtually all government bodies at the national and provincial levels, and all industries, along with input from intellectuals of various backgrounds. The content of the recent FYPs has expanded vastly, and the objectives for the development they focus on have been raised on all fronts. However, while there are still a few "administrative targets" that must be met during the five-year period through rigorous policy means, such as "energy intensity" or "pollution reduction", most quantitative targets are that of forecast or expectations for reference. In some sense, today's FYP in China is similar to Japan's plans in the 1970s and 1980s: it is more a consensus building process and national target-setting plan for future development than an executively imposed work load allocation. Therefore, the requirement of the government is focused more on providing the means and policies that will enable the economy and society to achieve those targets.

*It is important to understand the current nature of the Plan, how it is formulated and implemented, as well as the differences between the Plan and the final results.*

As a country with a strong tradition of industrial policy-setting, the Chinese government holds a number of policy instruments in pursuing the goals of the FYP. These include fiscal resource allocation, taxation, price regulation and control, market entry control, credit support, subsidies and government procurement, among others. In implementing the targets of the 12th FYP, several ministry-level bodies are playing decisive roles.

### State Development and Reform Commission

The SDRC is sometimes called the National Development and Reform Commission (NDRC). It is the successor to the State Planning Commission and is a result of a ministerial reshuffle in 2003. The body has overwhelming power to approval large-scale investment projects and has authority over price regulation in major areas.

### Ministry of Industry and Information Technology

Previously China had many industrial ministries in various sectors. They were eventually merged into one, the MIIT, in 2008. This body is responsible for industry entry, industrial standards, new technology promotion, and regulation of corporate M&A in industry, among other functions.

### Ministry of Commerce

The MOC is responsible for all policy affairs in domestic commerce and foreign trade, as well as China's domestic and external direct investment. It has a role in encouraging imports of advanced foreign equipment and technology.

### Ministry of Science and Technology

The ministry is mandated to promote technological progress and innovation in China. It performs a major role in formulating policy measures in science and technology, and runs various R&D funds and investment funds in the area.

### State-owned Asset Supervision and Administration Commission

The SASAC was created in 2003 and currently supervises and administers more than 100 of the largest Chinese state-owned non-financial corporations. The agency has been keen to promote the rapid growth and restructuring of these SOEs.

In addition to the above-mentioned ministries, many other ministries and government departments are working in accordance with the requirements of China's industrial policy as well as the 12th FYP. Moreover, many provincial and municipal governments have been eager to promote industrial development in areas that have been highlighted

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in the 12th FYP book. They often provide concessions to business developers and investors in their jurisdictions.

China's new leadership is determined to pursue further reform, and aims to restructure and rebalance the Chinese economy. In order to boost domestic consumption, new policy initiatives are meant to reduce the social barriers hindering people from moving into cities and towns from rural areas, to get them better access to social and public services, and to increase their social insurance coverage. Moreover, the government would like to take policy measures to help raise the pace of personal income growth – the so-called "income double target" for the next 10 years, and to cut surcharges on government services in various areas. A few steps were taken to cut taxes for the lowest income groups in recent years. Furthermore, local governments have been increasing the minimum wage standard. However, as the government no longer has the right to set primary income, it seems there's not much it can do about increasing household income/consumption, except to support economic growth and job creation. However, as household consumption only accounts for about 37% of GDP (government consumption accounts for 14% of GDP, and national saving 49%, most of which goes into domestic investment), the potential of the domestic market for consumer goods and services is obviously huge.

# Goals of the 12th Five-Year Plan

In March 2011, the People's National Congress approved the compendium of the 12th Five-Year Plan for 2011-2015 presented by the State Council. The compendium highlights major objectives for China's economic and social development in seven areas and puts forward various exact targets. Some are soft targets, mainly for policy reference and therefore, not legally constraining, while others are hard targets that will require policy intervention if and when actual performance is deemed outside the target.

### Economic Growth and Macroeconomic Stability

China's gross domestic product is to grow 7% per annum in real terms during 2011-2015, while total employment in cities and towns is expected to increase steadily, and CPI inflation is maintained at a reasonably low level. The government should also aim at reducing China's external imbalances.

### Economic Restructuring

China should see its household consumption ratio (consumer spending as a proportion to GDP) rise during the five-year period. Major breakthroughs should be made in strategic new industries. The share of the service sector in China's GDP should rise 4 percentage points, to 47% in 2015, and that of people living in cities and towns as a proportion of the total population should also rise 4 percentage points, to 51.5% in 2015.

### Development in Science and Education

The nine-year compulsory education scheme should continue to be monitored closely and rise in quality. Spending on research and development as a proportion of GDP should reach 2.2%. The number of patent registrations should increase 1.6% per annum over the five-year period.

### Resource Saving and Environmental Protection

A number of hard targets are proposed in this area. The total 121.2 million hectares of land for cultivation should by no means be reduced. Water usage per unit of industrial value added should fall 30%. The coefficient of effective water usage in agricultural irrigation should rise to 0.53. Non-fossil energy in total primary energy consumption should reach 11.4%. Energy consumption per unit of GDP should fall 16%. $CO_2$ emission per unit of GDP should fall 17%. Pollutants of all major types should be reduced considerably. The forestry coverage ratio should be raised to 21.66%, with the volume of trees higher by 600 million cubic meters.

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### Improvement of Living Standards

China should continue to control its population growth, with the total population not exceeding 1.39 billion during the five years. Mixed life expectancy should rise by one year, to 74.5 nationally. Disposable income per capita in urban households and net income per capita in rural households should grow at least 7% per annum. The new social pension fund system should cover all rural areas nationally. The number of people in urban areas participating in basic pension fund systems should reach 357 million. Thirty-six (36) million units of social housing will be built in cities and towns. The number of people in poverty should decline considerably.

### Social Development

Basic public services should be made more accessible to all people, and peoples' rights and interests should be protected and safeguarded concretely. Cultural establishments and pursuits should be promoted with more vigor, and the importance of cultural industries in China's GDP should rise considerably.

### Maintaining Direction in Reform and Economic Openness

China must continue to pursue further reforms in major areas such as public finance and taxation, financial services, factor prices, and monopolistic sectors. The government should produce changes in its systems in order to raise credibility and efficiency. China should continue to increase its external openness.

In addition, the 12th FYP suggests that the service sector as a proportion of China's GDP will rise from 42% in 2010 to 47% in 2015, and that the percentage of the population living in cities and towns will rise from 47.5% to 51.5%.

In the first half of 2013, services reached 45.3% of GDP, indicating that the pace of the growth has been well in line with the 12th FYP.

The urbanization ratio in 2010 was just about 50%. The target is to increase this ratio by about 1% per year, which would require that additional new jobs be created in cities and towns.

# The 12th FYP's "Focus Industries"

The 12th FYP is extremely comprehensive and ambitious, calling for further development and modernization in all sectors of the Chinese economy. From agriculture to manufacturing, from mining to transportation systems, from education to medical care, and from banking to insurance, the 12th FYP lays out every detail of the targets for upgrades and advancement during the next five years.

In particular, China has achieved tremendous progress in its industrial development in the recent past and is the world's largest producer of many major industrial products. The 12th FYP continues to emphasize industrial development in China, seeking to maintain and strengthen China's international competitiveness in industry through the future.

The following nine industries are identified as "Key Industries" in the 12th FYP book. As they are already well developed, policy-makers' emphasis is to provide for restructuring and further technological enhancement.

## THE NINE KEY MANUFACTURING INDUSTRIES

### 1.) Equipment making

China should enhance its ability to produce sophisticated and automated equipment sets, further raising its ability to initiate improvements and innovation.

### 2.) Shipbuilding

The industry should improve capacity and follow international standards, transforming its shipbuilding technology as well as its ability to produce highly value-added accessories.

### 3.) Automobiles

The priority is to enhance China's independent capacity to manufacture automobiles, realizing domestic production of all key parts and parcels, and producing vehicles that are more energy efficient, greener, and safer.

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### 4.) Metal making and Building Materials

China should stop seeking capacity expansion and instead pursue quality enhancement. More investment in R&D should be undertaken in order to enhance efficiency and reduce emissions.

### 5.) Petrochemicals

Leading corporations in the sector should invest in and build a handful of large-scale integrated petrochemical complexes, raising the quality of products and producing high-end new products.

### 6.) Textiles and Light industry

The country needs to upgrade its equipment in textiles and light industry, especially in food safety, raising its standards and technical capacity. Toxic elements have been frequently found in domestic dairy farm products in recent years, and the industry is suffering from a bad reputation.

### 7.) Packaging and Paper-making Industry

Equipment, materials and techniques in the industry should all be upgraded and developed. China should aim to produce high-value packaged products.

### 8.) Electronic information

R&D capacity should be increased, with stronger domestic development of basic technology.

### 9.) Construction

Firms in the industry should continue to replace obsolete techniques with new ones, and endeavor to make the industry greener.

## SEVEN STRATEGIC NEW INDUSTRIES

In addition to the above "Key Industries", the 12th FYP underscored seven "Strategic New Industries" and called for utilization of national resources to capture the frontiers in these industries.

### 1.) Energy saving and environmental protection

China should establish a handful of model projects in this area and begin to make this an economically feasible industry.

### 2.) New Generation of Information Technology

Chinese firms should catch up with the world frontiers in technology and applications and build up their own capacity and networks for all major new generation IT breakthroughs.

### 3.) Biology

The country should build its own industrial clusters in biological engineering, develop platforms for research and early application, and support laboratories for new biotechnology.

### 4.) High-end equipment making

Leading Chinese corporations should continue their pursuit of technological progress in aircraft and aerospace, rapidly upgrading technological capacity to produce high quality equipment for machinery making, high-speed rails and urban transportation systems.

### 5.) New energy

More efforts should be made to increase China's capacity to produce equipment for nuclear energy, solar power and wind power, among other energy sources.

### 6.) New materials

Chinese producers should catch up with the vanguard in R&D, production and utilization of sophisticated, high-quality and non-substitutable industrial materials.

### 7.) New-energy powered automobiles

The government will continue to encourage the production and use of hybrid powered and pure battery powered vehicles.

In short, China's seven "Strategic New Industries" should rise to 8% of GDP by 2015, eight times the level in 2010.

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# KraneShares CSI China Five Year Plan Sector Exposures:

## Information Technology

The Chinese government has been strongly promoting what is called "self-initiated innovation," encouraging firms to invent and upgrade new technologies based on their own research and development. Investment in cutting-edge equipment will enjoy various means of preferential taxation and financial treatment.

## Consumer discretionary

This is a fast-growing sector in general. In particular, the automobile industry has been growing at a strong pace over the past decade. Many firms in the sector are endeavoring to increase brand recognition and market share. Competition is extremely tense.

## Consumer Staples

Food safety and quality are the main problem in the sector today, and regulators of the industry have been under pressure to make improvements. Demand is accelerating for better, more reliable products, which would in turn, raise the reputation of the industry.

## Health Care

This industry is believed to be technologically backward and inadequate in providing service. The government is trying to pursue reform in regulation and liberalization of the sector. The pace of demand for health care has been high, and is expected to remain so in the future.

## Utilities

Along with urbanization and the growing population in cities, the demand for utilities has been growing rapidly in China. Capacity is deemed inadequate and inefficiently run in many cities. In response, many Chinese cities are pursuing capacity expansion during the 12th FYP period, including of subway systems, water supply systems, and road networks, and many other infrastructure works.

## Industrial Materials

Growth of demand for industrial materials is likely to decelerate from its high level of the past decade but should still remain relatively strong during the 12th FYP.

**KFYP Sector Breakdown**
as of 9/30/2013



- Information Technology (37.69%)
- Consumer Discretionary (16.52%)
- Industrials (14.57%)
- Consumer Staples (14.37%)
- Materials (6.56%)
- Utilities (4.77%)
- Healthcare (5.26%)
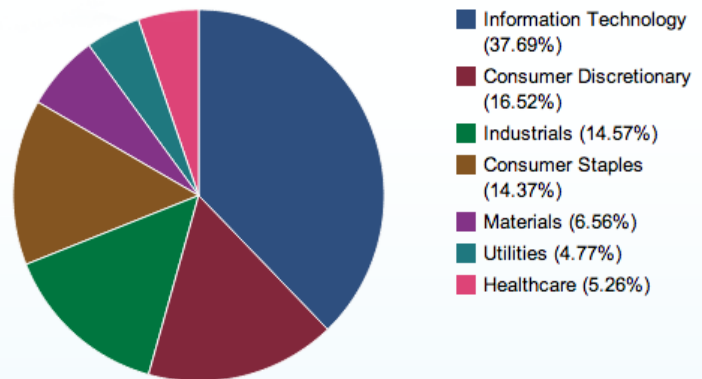
## A Word of Caution

Some industries that were highlighted in the 12th FYP, such as solar panel equipment making, have already reached over-heated growth rates and suffer from overcapacity problems. Government incentives have sometimes become a source of unbalanced development in certain areas, as too many people have tried to enter those markets.

Nonetheless, there are many new areas in which a good deal of opportunities are emerging for rapid development during the 12th FYP period. They were mentioned but were not literally focused upon in the FYP and include the health care industry, the eco-environment industry and modern agriculture, among others.

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# New Leaders' Commitment to The 12th Five Year Plan

The 12th FYP is, in effect, a result of the consensus between retired leaders and the new leaders, who worked together during the transition period of 2010-2011. The blueprint has been carefully balanced on the themes of growth, stability and reform. The new leaders appear to be shifting moderately toward reform and stability, and they are also openly committed to the key targets set forth in the 12th FYP, including growth levels and carbon emission reduction. They seem to realize that the engine of China's continuing growth will largely be domestic demand.

In particular, Premier Li Keqiang has recently spoken of the "bottom lines" for China's economic growth, which is understood to be the growth target set forth in the 12th FYP: 7% for GDP growth and 3.5% for CPI inflation (among other targets). This means that if the current slowdown were to continue, with GDP growing near or below target, the Chinese government would react by adopting some major policy stimulus measures in the future.

# EXHIBIT 27

**Part I: Transforming growth pattern, create a new scenario for scientific development**

Chapter 1: Development Environment

Given the great achievements of social development that we have attained in the last five years, the 11th Five Year Plan period is indeed extraordinary. In face of the complex changes and major risks both at home and abroad, the whole nation are united. Under the leadership of the Central Committee of the Communist Party of China (CPC), "Strive to Develop" has been attached great importance. Through implementing theories and policies of CPC and conducting the most effective macroeconomic regulation, we fully give full play to the socialist mechanism as well as to the market in terms of allocating resources. As a result, historical changes have occurred to our nation. We have not only effectively addressed the negative impacts caused by the global financial crisis but also maintained a rapid and stable economic development, which has laid a solid foundation for the sustainable development in the future. We successfully held the Beijing Olympic Games and the Shanghai World Expo. We have achieved the major objectives set in the 11th Five Year Plan. With five -year hard work, the national GDP and competitiveness have significantly enhanced. People have enjoyed a relatively high living standard, which has given a boost to China's international status and influence. Tremendous achievements have been made in various aspects including construction of socialist economy, socialist politics, socialist culture, and ecological civilization. The new chapter of socialism with Chinese characteristics has been written. Having said that, our success does not come easily and the experiences we have gained are precious. The aspirations  we have had are profound and lasting.

The current world is characterized of continuous complex changes, which may last for a while. Based on the judgment of both domestic and international situations, China is still in an important period of strategic opportunities during which there is a great deal China can achieve, and it is faced with both precious historic opportunities and plenty of foreseeable and unforeseeable risks and challenges. We should strengthen our awareness of the opportunities and challenges ahead. A good understanding of law of development, better adaptation to the environment, appropriate reconciliation of a variety of conflicts can put forward the endeavour of opening-up and reform as well as socialist modernization drive. In face of multi-polarity, deepening economic globalization, new changes in global economic political system, breakthroughs in technological innovation and that international tide remains peace, cooperation and development; China could embrace the general international environment which makes for the nation's stable development. Meanwhile, international financial crisis still poses its profound impacts on global economy, slowing down the world's economic growth; the global demand structure also appears salient changes, with competition more intensively focusing on market, resources, talented people, technologies and standards; global issues such as climate change, energy security and food safety are becoming protruding; protectionism in various forms has been increasing. Under the scenario, China's external international environment has proved to be more complicated. China is to locate its positioning in international economic division of labour and to facilitate international economic cooperation as well as to and create its new advantages in global competition.

Domestically speaking, China is experiencing industrialization, informationization, urbanization, marketization and further internationalization, with a stable growth in per capita national income. China is also undergoing an accelerated transformation of economic structure and a huge potential in market demand, enjoying abundant capital supply, an increase in the capacity of technology and education, an enhancement in the quality of labours and a gradual improvement of infrastructure. Dynamics in structure is conspicuously strengthened; government macro-control ability as well as its capability to handle complicated situations has also been greatly been enhanced. Social security system is getting strengthened along with overall social stability within grasp. China is confident to with its ability and social conditions to promote the development of economic and social development up to a new level as well as to raise the overall national strengthen. However, it is important to have a clear sight of the imbalanced, incompatible and non-sustainable elements within China's development, which mainly turn out to be a tightened constraint between economic growth on one hand and resources and environment on the other, an imbalance between investment and consumption, a relatively large income disparity, uncompetitive technological innovation ability, unreasonable industrial structure, vulnerable agricultural basis, a gap between rural and urban development, a coexistence of total employment pressure and structural contradiction, a significant increase in social conflicts and a still considerable number of institutional obstacles that restrain scientific development. China needs to wisely judge and accurately grasp the development trend, making full use of various advantageous conditions to efficiently solve the protruding contradictions and issues.

Chapter 2: Guiding Principles

To formulate the 12th Five Year Plan, we should hold high the great banner of socialism with Chinese characteristics. Under the guidance of Deng Xiaoping Theory and the important thought of Three Represents, we should comprehensively implement a scientific outlook on development and adjust to the new changes both home and abroad. We should live up to people's expectation to live a better life by deepening the endeavour of opening up and reform, and improve the social welfare system and people's livelihood. In order to achieve those goals, the scientific development is the theme while the acceleration of economic growth modes is the cardinal line. Additionally, we should consolidate the progress achieved in tackling the global financial crisis and improve a steady and rapid economic development in the long run as well as promote social harmony. The above-mentioned goals will lay a decisive foundation for building a well-off society in an all aspects.

The theme of scientific development is required by the times. It determines the overall situation of our endeavour of opening-up and reform, and the modernization drive. With more than 1.3billion people, China is still and will be on the primary stage of socialism. As the largest developing country in the world, development is the key to solving problems. Currently, adhering to development in China is the main principle, In other words, we should stick to scientific development, pay more attention to people and to the comprehensive and coordinated sustainable development, put a premium on overall planning with due consideration for all concerned, attach more importance to social welfare protection and improvement and enhance social justice. The inevitable way to promote scientific development is to maintain the cardinal line of speeding up the transformation of economic development, which accords well with China's fundamental realities and the new characteristics of the current developing

stage. To accelerate transformation of the mode of economic development is a serious reform in China's economic and social fields, which must be run through the overall process and various fields in the development of economy and society, to make for a comprehensive, coordinated and sustainable development, to facilitate changes while developing and further promote development with changes on the way, to finally realize the sound and fast development of both economy and social life. To achieve these goals, the fundamental requirements lie in that:

We sill elevate the core competitiveness of manufacturing industry, improving the new and strategic industries, speeding up the development of service industry as well as the primary and the second industries, striking a balance between the urban and rural development, proactively and steadily put forward the urbanization, accelerating the construction of socialist new villages and achieving the coordinated and interactive development among areas.

Scientific progress and innovation will support the transformation. Through comprehensively implementing the strategy of rejuvenating our country through science and education and talents, we will give full play to the role of science and human resources. China should upgrade its capabilities in indigenous research and innovation in science, technology and administration, train more innovative talents and improve education for workers. In a word, we will strive to speed up the construction of an innovation country.

The "fundamental end" of economic transformation is to improve people's lives, which could only be achieved by improving social welfare system, giving priority to job creation, providing equal public services to every citizen and stepping up reform of the income distribution system, We will unswervingly realize the shared prosperity and bring the benefits to the people.

In transforming the economic development mode, the importance of building a resource-saving and environment-friendly society should be stressed to save energy, reduce greenhouse emissions and actively tackle global climate change. We should develop circular economy and low carbon technologies Through striking a balance between economic development and population growth, sustainable development will be enhanced.

The endeavour of reform and opening-up will drive the transformation. We should unswervingly push forward reforms in economic, political and social areas. Efforts should be made in building up a mechanism of advantage to scientific development. We should carry out the open-up strategy to achieve outcomes. We are working with the international society to tackling global challenges and share the potential for development.

Chapter 3: Main Targets (see excel)
Resource conservation and environmental protection targets are striking. We will maintain farmland reserves at 1.818 billion mu (approximately 121,260,600 hectares). We will cut water consumption per unit of value-added industrial output by 30%, and increase the water efficiency coefficient in agricultural irrigation to 0.53. Non-fossil fuel resources will rise to 11.4% of primary energy consumption. Energy consumption per unit of GDP will decrease 16% and CO2 emissions per unit of GDP

will decrease 17%. We will make significant reductions in the total emissions of major pollutants: chemical oxygen demand (COD) and SO2 by 8%, ammonia nitrogen and nitrogen oxide by 10%. Forest coverage rate will increase to 21.66% and national forest stocks will increase by 600 million cubic metres.

| Target | | 2010 | 2015 | Change over 5 years (%) | Forecast or Binding |
|---|---|---|---|---|---|
| Farmland reserves (billion mu) | | 1.818 | 1.818 | 0 | binding |
| Decrease in water consumption per unit of value-added industrial output (%) | | | | 30 | binding |
| Increase of water efficiency coefficient in agricultural irrigation | | 0.5 | 0.53 | 0.03 | forecast |
| Increase of non-fossil fuel usage in primary energy consumption (%) | | 8.3 | 11.4 | 3.1 | binding |
| Decrease in energy consumption per unit of GDP (%) | | | | 16 | binding |
| Decrease in CO2 emissions per unit of GDP (%) | | | | 17 | binding |
| Total decrease in emissions of major pollutants (%) | Chemical Oxygen Demand (COD) | | | 8 | binding |
| | Sulphur Dioxide (SO2) | | | 8 | |
| | Ammonia Nitrogen | | | 10 | |
| | Nitrous Oxides | | | 10 | |
| Forest Increase | Forest coverage rate (%) | 20.36 | 21.66 | 1.3 | binding |
| | Forest stock (m³) | 137 | 143 | 6 | |

Chapter 4: Policy Direction

-Strengthen and improve macro-control. Strengthen the coordination of fiscal, monetary, investment, industrial and land policy, well balance the relationship between economic growth, restructure and managing inflation expectancy.

-establish long term mechanism of expanding domestic demand. Create positive consumption environment by actively yet steadily accelerating urbanization, implementing the strategy of employment as priority, deepening the distribution reform and improving social security system, gradually make the overall size of our domestic market ranks among the largest internationally.

-optimize investment structure. Clear definite the scope of government investment, standardize the investment behaviour of SOEs, encourage private investment, effectively contain blind expansion and repeat construction, promote virtuous interaction, combine increase investment, employment and improve people's wellbeing, create demand.

-simultaneously promote industrialization, urbanization and agricultural modernization. Industry should support agriculture, city should support countryside,

consolidate the foundation for agricultural development, speeding up agricultural modernization.

-Promote industrial upgrading by scientific innovation Guide the investment, talents and technology flow to enterprises, promote the strategic union of production and R&D, increase the industrial core competitiveness, promote coordinated development of three industrials in higher level.

-Accelerate coordinated and interactive regional development. In implementing master strategy of regional development and main function development, high priority should be given to the strategy of large-scale development of the western region, fully play the competitive advantage of each region; facilitate the flow of production factors and transition of industries, foster new regional economic engine in the central and western region, increase the coordination of regional development.

-Improve the incentive mechanism of energy conservation and emission reduction. Optimize the energy consumption structure, improve the mechanism of pricing and resources product and resource and environmental taxation, and strengthen the related laws, regulations and standard.

-Promote the equalization of basic public service. Improve public fiscal system and the social security system and gradually minimize the gaps between urban-rural and regional living standards and public service. Establish and improve the sustainable public service system which suits Chinese development situation, relatively comprehensive and covering both rural and urban areas.

-Accelerate the growth of rural and urban income. Improve the first and second distribution, appropriately adjust the distribution relationships between country, enterprises and people, and significantly increase the incomes of low-income group, continuously expanding the middle income group, reserve the enlarging trend of the gaps and strive to realize the synchronization of income and economic growth, remuneration and productivity.

-Strengthen and innovate social management. Increase the ability of social management, innovate the system, accelerate the construction of service government, focus to solve the original, basic and foundational problems which impacts the social harmony and stability, maintain the stable, orderly and vitality of society.


**Part II: Strengthen and benefit the farmers, accelerating the construction of socialist new countryside**

Chapter 5: accelerating the development of modern agriculture
Chapter 6: Expanding the channels for farmer's income
Chapter 7: Improve the rural production and living standards
Chapter 8: Improve the institution for rural development

**Part III: Transformation and upgrading, enhancing the competitiveness of industrial core**

Adhere to the new path of industrialization with Chinese characteristics, adapt to changes of market needs, give play to the comparative advantage of our country's industries in the global economy in light of the new trend of scientific and technological progress, and develop a modern industry system featuring optimized structure, advanced technology, cleanliness and safety, high added value and large employment capacity.

## Chapter 9: Improve and promote manufacture

Optimize structure, improve varieties and quality, enhance industry supporting capability, eliminate backward production capacity, develop the advanced equipment manufacturing industry, adjust the optimize raw material industries, transform and improve the consumer goods industry, and promoting the enlargement and enhancement of manufacturing industries.

### Section 1 Promoting the restructuring of key industries

The equipment manufacturing industry should improve the level of R&D and system integration of basic techniques, basic materials and basic components, strengthen the R&D and industrialization of critical technological equipment, and promote the intellectualization of equipment products. The shipbuilding industry should establish a modern shipbuilding pattern, and develop shipbuilding and supporting equipment with high technical added value in adaptation to new international shipbuilding standards. The automobile industry should strengthen the R&D capability of complete vehicles, realize the technical autonomy of key parts, and improve the level of energy conservation, environmental protection and security technology. The smelting and building material industries should control overall volume expansion strictly, optimize variety structure, and make new progress in product R&D, integrated resources utilization, energy conservation and emission reduction based on domestic demand. The petrochemical industry should explore new paths of diversified development of raw materials, focus on the development of high-end petrochemical products, accelerate the adjustment of fertilizer raw materials, and promote oil quality improvement. The light textile industry should strengthen environmental protection and quality safety, strengthen corporate brand building and improve technological equipment level. The packaging industry should accelerate the development of advanced packaging equipment, new packaging materials and high-end packaging products. The electronic information industry should improve R&D level, enhance the capability to develop basic electronics independently, and be guided toward the higher end of the industry chain. The building industry should extend green buildings and green construction, and focus on the optimization of the structure and service pattern with advanced building techniques, materials and information technology. Strengthen the elimination of backward production capacity, and suppress and channel off excess capacity.

### Section 2 Optimizing industry layout

Optimize the productivity layout of key industries in light of regional functional positioning, and in consideration of such factors as energy resources, environmental capacity and market space. Major domestic products of energy and mineral resources are to be located in places rich in resources in central and western China with priority, and major projects that utilize imported resources mainly are to be located in coastal

and frontier areas with priority. The relocation of urban enterprises of iron and steel, non-ferrous metals and chemicals should be carried out orderly. The layout of crude oil processing capacity should be optimized to promote the integrated development of upstream and downstream industries. Guide the clustering of production factors, and create a number of advanced manufacturing bases with international competitiveness based on key state projects. Develop a number of modern industry clusters with distinctive characteristics, a prominent brand image and a sound service platform using industry chains as a tie and industrial parks as a medium.

Section 3          Strengthening the technical improvement of enterprises
        Formulate policies that support the technical improvement of enterprises, and accelerate the application of new technologies, new materials, new techniques and new equipment to improve traditional industries and market competitiveness. Support enterprises to improve equipment level, optimize production processes, accelerate the elimination of backward technologies and equipment, and improve the overall level of integrated utilization of energy resources. Encourage enterprises to enhance new product development capacity, increase the technology level and added value of products, and accelerate the upgrading of products. Promote the IT-based improvement and upgrading of such aspects as R&D and design, production circulation, and business administration, carry out advanced quality management, and promote the management innovation of enterprises. Build a number of industry technical innovation service platforms.

Section 4          Guiding the merger and reorganization of enterprises
        Stick to market-based operations, give play to the role of enterprises as market players, improve related policies and eliminate institutional barriers. Drive advantaged enterprises to carry out alliance, cross-regional merger and reorganization, and increase industry concentration with focus on automobile, iron and steel, cement, machine building, electrolytic aluminum, rare earth, electronic information and pharmaceutical industries, etc. Promote independent brand building, improve brand value and effects, and accelerate the development of large enterprises with world-famous brands and core competencies.

Section 5          Promoting the development of small and medium enterprises (SMEs)
        Develop SMEs energetically, and improve the system of policies and regulations for SMEs. Cause SMEs to accelerate the transformation of development patterns, strengthen quality and integrity building, and improve product quality and competitiveness. Promote the restructuring of SMEs, and improve the level of specialized division of labor. Guide SMEs to develop in clusters, and improve innovation capability and management level. Create a favorable environment to activate the development of SMEs. Establish a sound financial service and credit guarantee system for SMEs, increase the size and percentage of lending to SMEs, and broaden channels of direct financing. Implement and improve preferential policies on taxation, etc. to relieve the social burden on SMEs.

| Column 4 Key fields of development of manufacturing |
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| **01 Equipment manufacturing**<br><br>Drive equipment manufacturing from a production-oriented style to a service-oriented style, and promote the development of numerically controlled products, green production and enterprise IT building. Develop equipment required for such key fields as new strategic industries and infrastructure. Promote the specialized production of basic techniques, such as casting, forging, welding, thermal treatment and surface treatment, and improve the level of basic parts and components, such as bearings, gears, dies, hydraulics and automatic controls. |
| **02  Shipbuilding**<br><br>Promote the upgrading of the three main vessel types of bulk vessel, oil tanker and container vessel in according to new international shipbuilding standards. Improve the ship equipment industry and loading rate. Give priority to the development of large liquefied natural gas (LNG) and liquefied petroleum gas (LPG) vessels, ocean-going fishing vessels, luxury liners, and other high-tech and high-added-value vessels. Accelerate the independent design and manufacture of mobile marine drilling platforms, floating production systems, marine engineering work ships, auxiliary ships, and key supporting equipment and systems. |
| **03  Automobile**<br><br>Build a system for principle, production and industrialization innovation. Focus on management and control systems for power batteries, driving motors, and other key parts and power assemblies. Promote high-efficiency internal combustion machines, high-efficiency driving, light-weight materials and structures, complete vehicle optimization, ordinary hybrid power technologies, and the energy conservation of automobile products. |
| **04 Iron and steel**<br><br>Focus on the development of steel for express railway, high-grade non-oriented silicon steel, high magnetic induction oriented silicon steel, high strength machine steel and other key steel varieties. Support such technical development efforts as non blast furnace iron making, clean steel production and integrated resources utilization. Focus on the development of energy conservation and emission reduction technologies, such as energy management and control system, high-temperature and high-pressure dry coke quenching, integrated residual heat utilization and desulfurization of sintering flue gas. Accelerate the construction of raw material bases. |
| **05 Non-ferrous metals**<br><br>Focus on the development of key materials required for aviation, spaceflight and electronic information. Support the extended application of cutting-edge smelting technologies, short and continuous processes, and energy conservation and emission reduction technologies, and encourage the recycling of renewable energy sources, and the integrated utilization of low-grade minerals, associated minerals, minerals that are difficult to recover and refine, tailings and waste residues. |
| **06 Building materials**<br><br>Focus on the development of photovoltaic glass, ultra-thin substrate glass, special fiberglass, special ceramics and other new materials. Support the co-disposal of urban domestic garbage based on cement kiln, and the construction of sludge production lines and exemplary lines of integrated utilization of waste building gases and materials. Develop new building materials and products that meet green building requirements. |

| 07 Petrochemical |
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| Construct large integrated smelting and chemical bases. Implement exemplary projects of coal, electricity and chemical integration, carbon dioxide utilization and mercury pollution control. Ensure that oil quality attains the national IV standard, and the diversification rate of olefin raw materials attains 20%. Eliminate some high-toxin and high-residue pesticides. |
| 08 Light industry |
| Promote the industrialization of key technologies, such as new batteries, new agricultural plastics, energy-saving and environment-friendly electric power sources and intelligent white goods. Accelerate the localization of equipment for key industries. Continue to promote forest and paper integration engineering. Support further food processing, strengthen capacity building in food safety detection, and improve the quality and integrity system of food enterprises. |
| 09 Textile |
| Promote the industrialization and application of hi-tech fibers, and new-generation functional and differential fibers. Accelerate the development of industrial textile products. Promote the localization of high-end looms and accessories. Support the recycling of old and waste textile products. |

Column 4 Key fields of development of manufacturing, Xinhua News Agency

Chapter 10: Foster and develop strategic emerging sectors

Promote the deep fusion of rising technologies and industries based on major technological breakthroughs and development needs, and develop new strategic industries into leading and pillar industries while continuing to strengthen and enlarge high-tech industries.

Section 1                    Promoting the leapfrog development of key fields
Develop new strategic industries energetically, such as energy-saving and environment-friendly new-generation IT, biology, high-end equipment manufacturing, new energy sources, new materials and new energy automobile. In the energy conservation and environmental protection industry, focus on the development of key technological equipment for efficient energy conservation, advanced environmental protection and resource recycling, products and services. In the new-generation IT industry, focus on the development of new-generation mobile communication, new-generation Internet, three-network convergence, Internet of things, cloud computing, IC, new displays, high-end software, high-end servers and information services. In the biological industry, focus on the development of biopharmaceuticals, biomedical engineering products, bio-agriculture and bio-manufacturing. In the high-end equipment manufacturing industry, focus on the development of aviation equipment, satellites and application, rail traffic equipment and intelligent manufacturing equipment. In the new energy industry, focus on the development of new-generation nuclear energy and solar energy utilization, photovoltaic and photo-thermal power generation, and wind power technological equipment, intelligent power grids and biomass energy. In the new material industry, focus on the development of new functional materials, advanced structural materials, high-performance fibers and compound materials, and common basic materials. In the new energy automobile industry, focus on the development of plug-in hybrid electric vehicles, pure electric

vehicles and fuel cell automobile technologies. The proportion of the added value of new strategic industries to GDP should attain about 8%.

Section 2　　　　　　　　Implementing industry innovation and development projects

Give play to the leading and supporting role of special major technology projects of the state, make unified planning of technological development, engineering, standard formulation and application demonstration based on advantaged enterprises, industry clustering zones and major products, support commercial pattern innovation and market development, implement some major industry innovation and development projects, and foster a number of backbone enterprises and demonstration bases of new strategic industries for the purpose of mastering core industry technologies and accelerating large-scale industry development.

| Column 5 Innovation and development of new strategic industries |
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| 01 Energy conservation and environmental protection industries<br>　　Implement major exemplary projects in energy conservation and environmental protection, and promote the industrialization of efficient energy conservation, advanced environmental protection and resource recycling. |
| 02 New-generation IT industry<br>　　Construct new-generation mobile communication networks, the new-generation Internet, and digital broadcast and television networks. Implement exemplary application projects of the Internet of things and special industrialization projects of network products. Construction industrial bases of IC, panel display, software and information services. |
| 03 Biological industry<br>　　Build databases of gene resources for pharmaceuticals, important plants and animals, and industrial microbial bacteria. Construct R&D and industrialization bases for biopharmaceuticals and biomedical engineering products, biological breeding, testing, detection and fine breeding bases, and exemplary bio-manufacturing application platforms. |
| 04 High-end equipment manufacturing industry<br>　　Construct industrialization platforms for homemade trunk and feeder airplanes, general-purpose airplanes and helicopters, and a spatial infrastructure framework composed of navigation, remote sensing and communication satellites, and develop intelligent control systems, high-class numerically controlled machines, high-speed trains and urban rail traffic equipment, etc. |
| 05 New energy industry<br>　　Construct industrial bases for new-generation nuclear power equipment, large wind power generating sets and parts, new assemblies of efficient solar power generation and heat utilization, biomass energy conversion and utilization technologies, and intelligent power grid equipment, and implement exemplary large-scale application projects of marine wind power, solar power and biomass energy. |
| 06 New material industry<br>　　Promote the R&D and industrialization of carbon fibers, semiconductor materials, high temperature alloy materials, superconductive materials, high-performance rare earth materials and nanometer materials for aviation and spaceflight, energy and resources, traffic and transport, and major equipment. |

Column 5 Innovation and development of new strategic industries, Xinhua News Agency

Section 3                    Strengthening policy support and guidance

Set up special funds for the development of new strategic industries and industry investment, expand the size of governmental startup investment in rising industries, give play to the financing function of capital markets at different levels, and guide social capital to be invested in innovative startups. Make comprehensive use of financial preferential policies, such as risk compensation, and encourage financial institutions to strengthen credit support. Improve and encourage innovation, and guide tax support policies for investment and consumption. Accelerate the establishment of industrial standards in favor of the development of new strategic industries and important technical standards for products. Support the construction of infrastructure that supports new products and applications, and create a favorable environment for the fostering and development of market demand.

Chapter 11: Accelerate the reform of energy production and utilization mode

Stick to the guidelines of conservation first, diversified development based on domestic resources and environmental protection. Strengthen reciprocal international cooperation, adjust and optimize energy structure, and build a safe, stable, economical and clean modern energy industry system.

Section 1                    Promoting the development of diversified and clean energy sources

Develop safe and efficient coal mines, and large coal enterprise groups, and promote the integration of coal resources, and the merger and reorganization of coal mine enterprises. Carry out R&D demonstration of coal-based natural gas, coal-based liquid fuels and coal-based co-production orderly, and promote industrialization steadily. Strengthen the exploration and development of petroleum and natural gas resources, stabilize domestic petroleum output, and promote the rapid growth of natural gas output, and the development and utilization of unconventional oil and gas resources, such as coal-bed gas and shale gas. Develop clean and efficient large-capacity coal-fired generating sets, giving priority to heat and power cogeneration units in large/medium cities and industrial parks, large coal-fired power stations near coal mines, and integrated coal gangue power stations. Develop hydropower actively on the precondition of proper ecological conservation and resettlement, focus on the construction of large-sized hydropower stations in southwestern China, develop medium and small river waterpower resources based on local conditions, and plan and construct pumped storage power stations scientifically. Develop nuclear power on a safe and efficient basis. Strengthen the construction of grid-connection works, and develop wind power effectively. Develop solar energy, biomass energy, geothermal

energy and other new energy sources actively. Promote the extended application of distributed energy systems.

Section 2                   Optimizing the layout of energy development

Plan national energy development and construction priorities in a unified manner, construct five national integrated energy bases in Shanxi, the Ordos Basin, eastern Inner Mongolia, southwestern China and Xinjiang, and develop nuclear power in the eastern costal region and some areas in central China mainly. improve the level of local energy processing and transformation to reduce the pressure of large-scale and long-distance energy transmission. Plan and construct energy storage facilities rationally, improve the petroleum reserve system, and strengthen the capacity of natural gas and coal reserve and peak molulation.

Section 3                   Strengthening the construction of energy transmission channels

Accelerate the construction of the strategic transmission channels for northwestern, northeastern, southwestern China and sea-imported oil and gas, and improve the domestic trunk oil and gas pipe network. Make unified planning of natural gas import pipelines, LNG receiving stations, and cross-regional trunk gas transmission and distribution networks, and create a gas supply layout in which natural gas, coal-bed gas and coal-based gas are balanced. Accelerate the building of a modern power grid system, further expand the size of west-to-east power transmission, improve regional trunk power grids, and develop advanced large-capacity, high-efficiency and long-distance power transmission technologies to meet requirements for large-scale cross-regional power transmission and the grid connection of new energy generated power. Promote the construction of intelligent power grids, strengthen urban and rural power grid construction and improvement, and improve the electric performance and supply reliability of power grids using advanced information, control and energy storage technologies.

| Column 6 Priorities of energy construction |
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| 01 Coal development and transformation<br>    Accelerate the construction of coal bases in northern Shaanxi, Huanglong, Shendong, eastern Inner Mongolia and eastern Ningxia, drive the construction of coal bases in northern, eastern and central Shanxi, Yunnan and Guizhou steadily, and start the construction of the Xinjiang coal base. Construct some large coal-fired power bases on the basis of the above coal bases. |
| 02 Stabilizing oil output and increasing gas output<br>    Create the 5 large-scale oil and gas producing areas of the Tarim and Junggar Basins, the Liaosong Basin, the Ordos Basin, the Bohai Bay Basin and the Sichuan Basin, accelerate the exploration and development of offshore and deep-water oil and gas fields, and strengthen the production and utilization of coal-bed gas in coal mine areas. Increase oil refining capability appropriately. |
| 03 Nuclear power<br>    Accelerate the development of nuclear power in coastal provinces, promote nuclear power construction in central provinces steadily, and construct nuclear power projects with a total installed capacity of 40 million kW. |
| 04 Renewable energy sources<br>    Construct large-sized hydropower stations in key watersheds, such as those of the |

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| Jinsha, Yalong and Dadu Rivers, and commence the construction of hydropower projects with a total installed capacity of 120 million kW. Construct 6 onshore and 2 coastal and offshore large wind power bases, with an additional installed capacity of over 70 million kW. Construct solar energy power stations with a total installed capacity of over 5 million kW with focus on Tibet, Inner Mongolia, Gansu, Ningxia, Qinghai, Xinjiang and Yunnan. |
| **05 Oil and gas pipe networks**<br>Construct the China-Kazakhstan crude oil pipeline (Phase 2), the China-Myanmar oil and gas pipeline (domestic section), the Central Asia natural gas pipeline (Phase 2), and the West-to-east Gas Transmission Lines 3 and 4. The total length of oil and gas transmission pipelines attains about 150,000 kilometers. Accelerate the construction of gas storage facilities. |
| **06 Power grids**<br>Accelerate the construction of outward power supply projects from large coal power, hydropower and wind power bases, and create some cross-regional power transmission channels using advanced technologies. Complete 330 kV or above power transmission lines of 200,000 kilometers. Carry out trials of intelligent power grid construction, improve substations to intelligent ones, extend the application of intelligent watt-hour meters, and construct electric vehicle charging facilities. |

Column 6Priorities of energy construction, Xinhua News Agency

## Chapter 12: Construct comprehensive transportation system

Develop different modes of transport proactively in a unified manner. Complete the national express railway network and expressway network largely, and create an integrated traffic and transport system featuring connected network facilities, advanced and applicable technologies and equipment, and safe and efficient services preliminarily.

### Section 1      Improving inter-regional traffic networks

Accelerate the construction of special passenger railway lines, inter-regional trunk lines and coal transport channels, and develop high-speed railways for passenger and freight transport. Strengthen the construction of bottleneck points in the national expressway network, and the expansion of national and provincial trunk highways. Drive the construction of high-grade waterways, and promote the standardization of vessels for inland water transport and enlarge ports. Improve transport systems for coal, petroleum, iron ore and container, etc., and improve the modernity of coastal port groups. Improve the aviation network with international pivotal airports and trunk line airports being the backbone, and feeder airports as a supplement, promote the development of general-purpose aviation, reform the airspace management mechanism, and improve the efficiency of utilization of airspace resources.

### Section 2      Constructing inter-city express networks

Promote the construction of multi-layer inter-city express traffic networks of city groups taking rail traffic and expressways as the backbone, and national and provincial trunk highways as a supplement. Complete the inter-city traffic networks for the three major city groups of Beijing-Tianjin-Hebei, the Yangtze River Delta and

the Pearl River Delta, and focus on the development of inter-city trunk lines in city groups.

Section 3          Giving priority to public traffic

Implement a public traffic priority strategy to develop urban public traffic systems greatly and increase the proportion of public traffic in overall traffic. Design technical routes for urban rail traffic scientifically, regulate construction standards, and promote the construction of urban rail traffic networks, including light rail, subway and trolley car. Develop ground rapid transit systems actively, and increase line density and station coverage. Regulate the urban taxi industry, guide private motor vehicle travel rationally and advocate non-motor-vehicle traffic. Optimize the functionality and layout of interchanges to improve traffic efficiency. Plan integrated urban and rural public traffic in a unified manner.

Section 4          Improving traffic service level

Strengthen the organic connection of railways, highways, ports, airports and urban public traffic, and accelerate the construction of integrated traffic hubs according to the requirements of zero-distance transfer and seamless freight connection. Extend the application of advanced equipment and technologies to improve the IT building level of traffic. Optimize transport organization, carry out innovative service pattern, and promote passenger ticket integration and through freight traffic. Develop energy-saving and environment-friendly means and modes of transport, and drop and pull highway transport greatly. Strengthen safety management to ensure transport safety.

| Column 7 Priorities of traffic construction |
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| 01  Railways<br>    Construct 4 longitudinal and 4 transverse passenger transport special lines, inter-city rail traffic trunk lines in city groups, the second double line of the Lan-Xin Railway and such inter-regional trunk lines as Zhengzhou-Chongqing. Complete an expressway railway network with an operating mileage of 45,000 kilometers, and basically covering cities with a population of over 500,0000, and western China trunk lines, such as the Lhasa-Shigatse Railway. Construct coal transport lines from central and south Shanxi, and western Mongolia to central China. Study the feasibility of constructing the Qiongzhou Strait sea-crossing project and the Sichuan-Tibet Railway. |
| 02 Urban rail traffic<br>    Build urban rail traffic network systems in Beijing, Shanghai, Guangzhou and Shenzhen, etc., complete main urban rail traffic frameworks in Tianjin, Chongqing, Shenyang, Changchun, Wuhan, Xi'an, Hangzhou, Fuzhou, Nanchang and Kunming, etc., and plan rail traffic backbone lines in Hefei, Guiyang, Shijiazhuang, Taiyuan, Jinan and Urumqi, etc. |
| 03  Highways<br>    Complete a national expressway network consisting of 7 radial lines, 9 longitudinal lines and 18 transverse lines largely, with an available mileage of 83,000 kilometers, basically covering cities with a population of over 200,000. Strengthen the improvement of national and provincial trunk highways, increase the proportion of Class 2 or above national highways to over 70%, and connect |

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| almost all county towns with appropriate conditions to Class 2 or above highways. |
| 04 Coastal ports<br><br>Construct coal loading ports in northern China, coal transit and storage bases in eastern and southern China, large crude oil handling terminals in Dalian and other ports, large iron ore handling terminals in Ningbo, Zhoushan and other ports, and container terminals in Shanghai, Tianjin and other ports. Construct about 440 10,000-ton and above deep berths. |
| 05 Inland water transport<br><br>Regulate the upper Yangtze River channel, implement the channel management project for the Jingjiang River section of the Yangtze River, and extend the 12.5-meter-deep channel at the estuary of the Yangtze River upward. Implement the Xijiang River trunk shipping channel capacity expansion project, and the Beijing-Hangzhou Canal improvement project, and promote the construction of the high-grade channel network of the Yangtze River Delta, and other high-grade channels. |
| 06 Civil aviation<br><br>Construct a new airport in Beijing, expand the airports of Guangzhou, Nanjing, Changsha, Haikou, Harbin, Nanning, Lanzhou and Yinchuan, construction a number of new branch line and general-purpose airports, and study the feasibility of constructing new airports in Chengdu, Qingdao and Xiamen. Accelerate the construction of new-generation flight control systems. |
| 07 Integrated traffic hubs<br>Construct 42 national integrated traffic hubs. |

Column 7 Priorities of traffic construction, Xinhua News Agency

Figure 2 National express railway network

Figure 2 National express railway network, Xinhua News Agency

Figure 3 National expressway network



Figure 3 National expressway network, Xinhua News Agency

Chapter 13: Comprehensively improve the informationization level

Accelerate the construction of a broadband, converged, secure and ubiquitous new-generation national IT infrastructure, and promote the deep convergence of IT building and industrialization, and IT building in all socioeconomic fields.

Section 1             Building new-generation information infrastructure

Plan new-generation mobile communication networks, the new-generation Internet, digital broadcast and television networks in a unified manner, and promote the construction of satellite communication facilities, and create an ultra-high-speed, large-capacity and highly intelligent national trunk line transmission network. Guide the construction of broadband wireless cities, promote the door-to-door connection of urban optical fibers, accelerate the construction of broadband networks in rural areas, and increase bandwidth popularity rate and access bandwidth comprehensively. Establish sound laws, regulations and standards with focus on the two-way access of radio and television, and telecom operations, realize the convergence of the telecom network, the radio and television network, and the Internet, and promote network interconnection and operation convergence.

Section      2      Accelerating socioeconomic IT building

Promote IT building in all socioeconomic fields. Develop e-business actively, improve e-business services oriented to SMEs, and promote the construction of society-oriented credit services, online payment and logistic distribution systems.

Promote e-government building greatly, drive the interconnection, information sharing and operational coordination of key governmental information systems, construct and improve online administrative approval, information disclosure, online complaint handling, electronic supervision and auditing systems. Strengthen the building of key information systems, such as market regulation, social security and medical care, and improve basic information resources system for geography, population, legal person, finance, taxation and statistics, strengthen the integration of information resources, regulate collection and distribution, and strengthen integrated social development and utilization.

Section 3          Strengthening network and information security
      Improve laws and regulations on network and information security, the system of standards, and the system of certification and authentication for information security. Implement information security rating protection, risk assessment and other relevant systems. Accelerate the demonstration and extension of key secure and controllable software and hardware, strengthen information network monitoring and control capabilities, and ensure the security of basic information networks and key information systems. Promote the construction of information security and secret protection infrastructure, and build an information security and secret protection system. Strengthen Internet management, and ensure national network security and information security.


Chapter 14: Promote the development of marine economy
      Develop and implement a marine development strategy based on unified sea and land planning, and improve marine development and control capabilities.

Section 1          Optimizing the marine industry structure
      Plan the development of the marine economy scientifically, exploit and utilize marine resources rationally, develop marine oil and gas, marine transport, marine fishing and coastal travel industries greatly, and expand marine biopharmaceutical, integrated seawater utilization, marine engineering equipment manufacturing and other rising industries. Strengthen the R&D of basic, proactive and critical marine technologies, improve marine technology level, and improve marine development and utilization capabilities. Deepen the integration of port and coast resources, and optimize port layout. Develop and implement marine master plans, optimize the spatial layout of the marine economy. Carry out trials of marine economy development in Shandong, Zhejiang and Guangdong Provinces.

Section 2          Strengthening integrated marine management
      Improve the marine management mechanism through enhanced coordination. Strengthen sea area and island management, improve the market mechanism for sea area use rights, promote the protection and utilization of sea islands, and support the development of remote seas islands. Make unified planning of marine environmental protection and land-based pollution, and strengthen the protection and recovery of the marine ecosystem. Prevent the overexploitation of offshore resources, strengthen reclamation management, and regulate the utilization of unoccupied sea islands strictly. Improve the marine disaster relief system, and strengthen the handling capability of marine emergencies. Strengthen integrated marine surveying and mapping, and carry out polar and oceanic scientific investigation actively. Improve

maritime laws, regulations and policies, and enhance marine law-enforcement to maintain the order of exploitation of marine resources. Strengthen bilateral and multilateral marine affairs negotiation, participate in international marine affairs actively, ensure the safety of marine transport channels, and maintain our country's marine rights and interests.

## Part IV: Creating the environment necessary for extensive development in the services industry

We will promote the extensive development of the services sector as part of the optimisation of the industrial structure and upgrading of strategic priorities. To do this, we will create a favourable policy and institutional environment, explore new areas, promote the development of new business formats, cultivate new tourism hot spots and a larger range of services, promote branding, business internet usage, and continuously improve the quality and scope of the services industry.

Chapter 15: Accelerating the development of production services

We will deepen the professional division of labour, accelerate innovation in services products and services models, promote the merging of production services and the advanced manufacturing industry, and promote the accelerated development of production services.

Section One          Orderly expansion of the financial services industry
    We will serve the real economy, prevent systemic risk and encourage orderly development and innovation of financial organisations, products and services, to raise the overall quality of the financial services. We will bring into play the comprehensive service functions of large financial institutions, and actively develop small and medium sized financial institutions. Focusing on micro-enterprise development, we will promote scientific innovation, the development of a green economy, support cross-border operations of enterprises, and develop new service formats such as online trading, as well as innovative financial products and service models. We will better bring into play credit financing, securities, trusts, wealth management, leasing, guarantees, online banks and other asset allocation and financial services functions. The financial infrastructure construction will be strengthened, and financial markets' registration, management, trading and settlement systems will be improved. We will expand the field of insurance services, and actively develop liability insurance, credit insurance, explore the development of catastrophe insurance and innovative ways of insurance marketing, regulate development of the insurance intermediary market and promote construction of the reinsurance market, as well as establish and improve the insurance services system.

Section Two          Vigorously develop the modern logistics industry.
    We will accelerate the establishment of social, professional, information-based modern logistics system, vigorously develop third-party logistics, prioritise the integration and use of existing logistics resources, support the construction and linking-up of the logistics infrastructure, improve logistics efficiency and reduce logistics costs. We will promote agricultural products, bulk mineral products, key

industrial areas and other fields important to the development of logistics. We will optimize the development of regional distribution systems, and support the orderly development of logistics parks and other cluster areas of logistics. We will promote the development of modern logistics management, and improve the sophistication and standardization of logistics.

Section Three          Fostering the growth of high-tech services

With a focus on high-tech extension services and professional services related to support technology innovation, we will greatly develop the high-tech services sector. The development of the research and development industry will be accelerated, and the transformation of industrial design from simple exterior design to high-end integrated design services will be promoted. We will strengthen information services, enhance the application level of software development, the development of information systems integration services, internet value-added services, information security services and digital content services, and develop the Geographic Information Systems industry. Furthermore, we will actively develop inspection and testing, intellectual property rights, and science and technology achievements as well as other science and technology support services. We will cultivate the development of a number of high-tech services, key enterprises and famous brands.

Section Four          Regulation to enhance business services

We will push for the development of accounting, auditing, taxation, engineering consulting, certification and accreditation, credit evaluation, brokerage, management consulting, market research and other professional services. We will actively advance the services of lawyers, notaries, forensics, economic and trade arbitration and other legal services. We will accelerate the development of project planning, mergers and acquisitions, financial advisory and other business management services. We will regulate the development of personnel agencies, personnel recommendations, personnel training, staffing and other human resources services. To support advertising, the healthy development of the conventions and exhibitions industry will be encouraged.

Chapter 16: Vigorously developing the life services industry

For urban and rural residents, we will enrich the range of services, expand service provision and improve service quality to meet diverse needs.

Section One          Optimize the development of business services

Optimization of urban supermarkets, shopping malls, wholesale markets and other business outlets structure and distribution will be driven forward. We will endorse convenience stores, small supermarkets, local food stores and related local development projects. We will encourage and support chain operations, logistics, e-commerce and other modern methods of distribution extending to rural areas, we will also improve rural services networks, support links between large-scale supermarkets with rural cooperation organisations, and reform and upgrade agricultural wholesale markets and farmers markets. We will guide the development of healthy regulations in the accommodation and catering industry and support the development of internationally competitive large-scale trade and business enterprises.

Section Two          Active development of tourism

We will comprehensively develop domestic tourism, actively develop inbound tourism, and encourage the orderly development of outbound tourism. Equal emphasis is put on both protection and development of tourism resources. We will strengthen the tourism infrastructure, and promote major tourism sites and construction of tourism routes. We will encourage the development of the tourist industries' defining characteristics and product diversification; we will comprehensively promote eco-tourism, encourage in-depth development of cultural tourism, and rigorously develop red tourism. We will improve the tourism service system, strengthen the industry's self-regulation and integrity construction, and improve the quality of tourism services.

Section Three        Encourage the development of domestic services

For services to support families and provide an important foundation for local communities, we will focus on the development of house-keeping services, pension services, nursing services and similar services. We will also encourage the development of home care services for persons with disabilities, actively develop community care centres and specialized pension services, and according to local conditions develop domestic services distribution, family education and other specialised services, and further the formation of multiple levels and forms of domestic services markets and business operators. We will accelerate the construction of domestic services non-profit information platforms. Market supervision will be strengthened and the domestic services market will be standardised.

Section Four        Comprehensive development of sports facilities and the sports industry

There will be vigorous development of public sports and improvement of public sports facilities. We will launch a national fitness programme, improve national and especially youth awareness of physical fitness and health. We will continue the fitness programme for the rural population. We will optimise the competitive sports structure and improve the overall strength of competitive sports. We will further develop fitness and recreational sports, sports competition and performance markets, and advance sporting goods, sports agents, venue operators and other intermediary services, to promote the coordinated development of sports facilities and the sports industry.

Chapter 17: Creating a favourable environment for the services industry

By opening up we will further reform and through enhancing competition we will further development. Therefore, service systems innovation will be promoted, the service policy system will be improved, and the developmental environment for services will be optimised.

Section One        Accelerate the reform of the services sector

We will establish fair, standardized and transparent market access standards, remedy sector fragmentation, regional blockades and industrial monopoly, expand the opening of the services sector, encourage and guide various types of capital investment in the services industry, vigorously develop a range of forms of service enterprise ownership, and establish an integrated, open, competitive and orderly services market. We will deepen organisations and institutions logistics related social reform. We will explore market managing methods suitable for new types of services format development. The pilot scheme for comprehensive reform of the public

services will be advanced and we will explore institutional mechanisms and effective methods for accelerating development benefitting the services industry.

Section Two          Improve services related policy

We will implement the regulation that encouraged types of service sectors may purchase electricity, water, gas and heat at the same price as the industrial sector does. We will expand the supplies granted to the services sector and the services sector will have priority in using land which is no longer claimed by industry. Combined with value-added tax reform, the tax system of production services will be reformed. The financing channels for service sector enterprises will be broadened and the public financing and issuing of bonds of eligible enterprises will be supported. We will expand the product range of government procurement services. We will establish and improve services standards systems. We will support service enterprises' brand and network building. The distribution of service industry development will be optimised and the formation of metropolises will be promoted for the industrial structure of the service economy.

## Part V: Optimizing the structure, accelerating the coordinated regional development and sound urbanization development

Chapter 18: Implementing the overall strategy on regional development

(Summary)

1. Promoting a new round of large scale of development of the western region. It should be given the priority and special policy support. Strengthen the infrastructure construction; build several key project of water conservation. Strengthen the ecological construction. Building national important energy, strategic resources providing region and industrial gathering area, develop characteristic agriculture and tourism.
2. Comprehensively revival the old industrial base of northeastern region. Promote industrial upgrading and energetically develop the service sector of finance, logistics and tourism. Deepening the SOE reform, consolidate the national grain strategic base, promote the restructure of resource-exhausted region.
3. Vigorously accelerate the rise of central region. Consolidate the national important grain production base, energy and raw material base, build modern equipment manufacturing and comprehensive transportation center. Promote the agglomeration of industry and population, strengthen the connection with surrounded city chain.
4. Actively support the leading position of eastern region development. Participating international cooperation and competition in higher level, fostering the development of emerging strategic sector, modern service sector and advanced manufacturing. Promote the institutional innovation, first to improve the socialism market economic system.
5. Greater support to the development of old revolutionary base areas, ethnic minority areas and border areas.

(Full translation)

Give full play to comparative advantages in different areas, and promote the rational flow of factors of production, deepening regional cooperation and promote the development of regional interaction, and gradually narrow the development gap between regions.

Section 1 Push forward a new round of Western Development

Adhere to the depth of the western development strategy on priority of overall regional development strategy, and to give special policy supports. Strengthen infrastructural construction, expand network of railways, civil aviation, water transportation, build a number of key water main water hydro station, accelerate to push forward the oil and gas pipelines and main electricity transmission and networks projects. Strengthen environment protection, strengthen geological disasters prevention, promote construction of key ecological function areas, continue to implement key ecological projects, and build the national ecological security barrier. Take advantage of resources, implement market-oriented advantage resources transmission strategy, arrange a number of resource development and deep processing projects in the resource-rich regions, build continuous places of national important energy and strategic resources and industries gathering areas, develop advantage industries such as characteristic agriculture and tourism. Vigorously develop science and education, enhance self-development. Support the development of Wenchuan and other disaster areas. Adhere to stringing points with line and driving area with point, promote Chongqing, Chengdu, Xi'an regional strategic cooperation, promote development of economic zones such as Hohhot Baotou Bao Hubei Yu, Guangzi North Bay, Chengdu Chongqing, middle area of Guizhou, middle area of Yunnan, middle south area of Tibet, Guanzhong-Tianshui, Lanzhou-Xining, Ningxia along Huangshan and Tianshan mountains, foster new economic growth points.

Section 2 Comprehensive Boom the Old Industrial Bases such as Northeast Region

Take advantage of strong industrial and technological base, improve the modern industrial system, promote upgrading of the advantage industries such as equipment manufacturing, raw materials, automobiles and agricultural products deep processing, etc, Vigorously develop service industries such as financial, logistics, tourism and software and outsourcing industries. Deepen the reform of state-owned enterprises, speed up the reform of collective corporate owned by factories and the disposal of 'debt turn to share' assets, vigorously develop non-public economy and SMEs. Speed up the transformation of agricultural development, build a solid national food strategic base. Focus on protection of black land, wetland, forests and grassland, promote the ecological protection and economic transformation of Daxinganling Xiaoxinganling and Changbai mountains. Promote transformation and development of resource depletion areas, enhance sustainable development capacity of resourced cities. Co-ordinately promote the transformation of old industrial bases nationwide. Focus on the regional development of Liao Ning coastal economic belt, Shenyang economic zone, Chang Ji Tu economic zone, Ha Da Qi and Mu Sui areas.

Section 3 Vigorously Promote the Grow-Up of Central Region

Exerting the advantages of linking the east and west, strengthen competitive industries, develop modern industry system, consolidate to enhance the position of national

important grain manufacturing base, energy resources base, modern equipment manufacturing and high-tech industry base and integrated transport hub. Improve investment environment, undertake an orderly transfer of the eastern region and international industry. Enhance recourse efficiency and recycling economy development level. Strengthen the comprehensive management of major rivers and lakes. Further refine and implement the policies of boom old industrial base and the western development policies. Speed up the construction of the economic belts along Longhai, Jingguang, Jingjiu and Changjiang river, promote agglomeration of population and industries, strengthen the abutment joint and connection with surrounding cities. Focus on promoting the development of Tianyuan city group, Wanjiang city belt, Boyanghu Lake ecological economic zone, the central plains economic zone, Wuhan city circle, Chang-Zhu-Tan city circle group, etc.

Section 4 Actively support East Region to Take the Lead in Development

Exerting leading and supporting role of the eastern area to the national economic development, in a higher level participate into international cooperation and competition, behave as a pilot in the reform and opening up, step in the forefront of the country and the transformation of economy development, economic restructuring and innovation. Focus on enhance the construction of national innovation cities and regional innovation platform. Focus on cultivating industrial competitive advantage, speed up the development of strategic emerging industries, modern service industries and advanced manufacturing industries. Focus on promoting system innovation, takes the lead to improve socialism market economy system. Focus on enhancing sustainably development capacity, further improve resource usage efficiency of energy, land, and sea, strengthen environmental pollution regulation, and resolve the bottleneck problem of resource and environment. Promote development of integration of Jing Jin Ji, Changjiang River Delta, Zhujiang River Delta areas, create the capital economic circle, focus on promoting the development of Hebei coastal areas, Jiangsu coastal areas, Zhejiang Zhoushan islands districts, West Coast economic zone, Shangdong peninsula blue economic zone, etc, and build Hainan international tourist island.

Section 5 Increase the Support Efforts to the Development of Old Revolutionary Base Areas, Minority Nationality Regions, border areas, and poverty areas

Further increase the supports efforts, strengthen infrastructural construction, strengthen ecological protection and restoration, improve public services, and practically improve the living conditions in the western region. Continue to implement policy to support the development of old revolutionary base areas. Implementation policies to support development of minority nationality regions, vigorously promote Tibet, Xinjiang and other minority nationality regions, give aid to development of small population nationalities. Further push forward the action of booming the border area and enriching the people, inland border areas enjoy the Western Development policies, support border trade and development of ethnical urgently needed commodities. In the southern region, the eastern margin of Qinghai-Tibet plateau , Wuling mountains, Wumengshan mountains, western Yunnan mountains border, Qinbashan-Liupanshan mountains and other special poverty middle western areas, implement poverty alleviation and development projects, increase the efforts of pursuing poverty alleviation by development of industry and ex situ relocation. Support the construction and development of Xinjiang Production and

Construction Corps. Promote the follow-up development of the Three Gorges reservoir area. To the public welfare projects that the Central arranged for the 'Old, Minority, Border, Poverty' areas, cancel the county level and gradually reduce the municipal matching funds. Implement regional mutual aid policy, carry over various one-for-one support.

Chapter 19: Implementing the strategy of major function regions

(Summary)

1. Optimize the development structure of national land and space. Coordinate the population distribution, economic structure, national land utilization and urbanization, guide the population and economy agglomerate in the regions where suit for development, protect agricultural and ecological development, promote the balance between population, economy, resources and environment. Optimize the development of urbanized region which have dense population, intensive development and heavy constraints of resources and environment. Focus on the development of urbanized region which have better condition for economic and population agglomeration and a stronger carrying ability of resources and environment. Protect the grain production base to safeguard the security of food supply. Restrict the industrialization and urbanization in major ecological region. Prohibit the exploration of the protected area of nature and culture resources.
2. Implement regional policy of category management. Form the related laws and regulations. The central budget should gradually increase the transfer to the major grain production region, ecological region. The investment strategy should fit the Major Function strategy. Implement differential land management policy and environment standard.
3. Implement differentiated assessment. For optimized region, evaluate the economic structure, technological innovation, resources utility and environment protection. For Major development region, evaluate economic growth, industrial structure, quality and efficiency, energy conservation and emission reduction, and population attraction. For restricted region, evaluate the agricultural production and ecological protection, but not the GDP and industrial indicators. For prohibited region, evaluate the protection performance.
4. Establish and improve the transition mechanism. Improve regional development, key projects planning according to the Major Function strategy. Study and formulate the index of development and environment for different region.

(Full translation)

According to the rational layout requirement of the national economy, standardize space development order, control space development intensity and form the high-efficient, harmonized and sustainable space development structure.

Section 1: Optimize the national space development structure

Plan China's population distribution, geographical distribution of the different sectors of the economy, territory utilization and urbanization pattern in a unified way, lead the population and economy to concentrate to the areas that are suitable to

development, protect the agriculture and ecology development space, promote the harmonization of population, economy and resource environment. Optimize development in the region where population is dense, land development density is already high and resource environmental bearing capacity is heavy. Key development in the region where resource environmental bearing capacity is relatively strong and economic and population concentration condition is relatively good. Strongly ensure the safe supply of agricultural products in the main agricultural production zone where the agriculture production condition is good, and provide agricultural products as its principle function. Limit the large-scale and high-density industrialization and urbanization development in important ecological functional zone which is related to the ecological safety in the country or greater regional ranges. Prohibited development in various nature and culture reserve areas established legally, and other areas where special protection is needed.

Section 2: Implement Classified Management Regional Policy

Basically form the laws, regulations and policies which can meet the requirement of principle function area, perfect the interests compensation mechanism. The central finance shall increase the financial transfer payment, year by year, to main production area of agricultural products, and key ecology function area, especially the Midwest key ecology function area, increase the protection ability to basic public service and ecologic environment. Provincial government shall perfect the financial transfer payment policy to lower government. Implement the government investment policy which is combining the arrangements that are in accordance with the principle function area and in accordance with sector. The investment which is arranged according to the principle function area will be mainly used to support the development of key ecology function area and main production area of agricultural products. The investment which is arranged according to the sector shall fit the principle function orientation and development direction of each area. Modify and perfect the current industrial guidance catalogue, clarify the encouraged, limited and prohibited industrial for different principle function areas. Implement the differential land management policy, scientifically set the different land using scale, and carry out strict land use control. Implement different pollutant emission volume control and environment standards to different principle function area. Perfect the policies regarding agriculture, population, nationality and responding to climate change.

Section 3: Implement differently-stressed performance evaluation and achievement evaluation

On the basis of strengthening the evaluation of ability of providing basic public service in all types of areas and the evaluation of increased sustainability, according to the different principle function orientations of different areas, implement differential evaluation and examination. To the optimized development urbanized area, we shall strengthen the evaluation of economic structure, technical innovation, resource consumption and environment protection etc. To the key development urbanized area, comprehensively evaluate economic growth, industrial structure, quality benefit, energy saving and emission reduction, environment protection and population absorptive capacity etc. To the limited development area of main production area of agricultural products and key ecology function area, implement respectively the agriculture development preferential and ecology protection preferential performance evaluation, not evaluate the GDP and industries. To the prohibited development zone,

comprehensively evaluate the protection situation of the authenticity and completeness of the natural and cultural resources.

Section 4: Establish and perfect the cohesion coordination mechanism

Play the strategic, fundamental and binding role of national principle function area in the aspect of national land and space development. According to the requirement of promoting the formation of principle function area, perfect the regional planning, complete the coordination of specific project planning, key project planning and principle function area. Advance the cities and countries' space planning, fix the regional principle function orientation; clarify the layout of function areas. Study and draw up obligatory targets of development density, environmental capacity for various principle function areas, and timely implement. Perfect the national spatial dynamic monitoring and management system which should be covering the whole country, coordinating cohesively, and updating in a timely manner, carry out the tracking evaluation to principle function areas' construction.

Chapter 20: Actively and steadily promote urbanization

(Summary)

1. Establish the strategic planning for urbanization. Respect the development rule of city, promote the coordinated development of cities and counties. In the east region, build a city group which has better international competitiveness. Foster and strengthen various city groups in the central and western region. Strengthen the industrial function of small and medium sized city, strengthen the public service and living function of counties.
2. Steadily promote the rural residents becoming urban residents. It is the major task for urbanization, fully respect farmer's choice, protects their interest of their land. Mega cities should control its population scale, big and medium cities should strengthen and improve population management, attract more population, small and medium cities and counties should encourage relax their conditions of Hukou. Meanwhile, public service and interest protection should be strengthened for migrant workers who don't have the qualification to have a city Hukou.
3. Strengthen the comprehensive carrying ability of cities and counties. Standardize the construction of new township, increase the density, optimize the landing using structure, and prevent the overall expanding of mega cities. Deepening the investment and financing reform of city construction, issue bonds for city construction. Strengthen comprehensive management.

（full translation）

**Chapter 20 Promote the Sound Development of Urbanization**

Optimizing urbanization layout and form, strengthening urbanization management, keeping on enhancing the urbanization quality and level.

Section 1. Forming strategic layout of urbanization

According to the principle of unified planning, rational layout, perfecting functions and pushing forward the small ones by developing the big ones, and following the

objective rules of urban development, depending on big cities and focusing on small cities, gradually forming urban agglomeration with radiation effects and foster the coordinated development of large, middle and small cities as well as small towns. Building strategic layout of urbanization by taking the road bridge channels and border long river channels as the two horizontal axes, and the sea border, Jing Ha Jing Guang and Bao Kun channels as the three vertical axes, depending on numbers of cities on the axes, and other urbanized areas and cities as important integral parts, so as to foster economic growth and the extension of market spaces from east to west and from south to north.

Gradually building urban agglomeration with international competitiveness in eastern areas, breeding and developing numbers of urban agglomeration in middle western areas of which the conditions are mature. Scientifically programming the function positioning of cities in the urban agglomeration, relieving the pressure of the central districts of super cities, strengthening the industrial functions of middle and small cities, heightening public service functions and residential functions of small towns, pushing forward the unified construction of infrastructures and internet development of large, middle and small cities. Actively digging out the development potential of middle and small cities, giving priority on developing middle and small cities that have obvious regional advantageous and stronger resource and environment capacity. Developing small towns with focus, gradually developing central towns of eastern areas, county towns of middle west areas and important border ports that has certain conditions into middle or small cities.

Section 2. Steadily pushing the diverted agricultural population's transformation into town population

Taking the change of diverted agricultural population into town population as the important task of pushing forward of the urbanization. Fully respect the freedom of farmers on choosing if they would like to head for the towns or stay in the countryside, faithfully protecting legal rights, such as the rights of contracted lands and housing lands of farmers. By keeping on the method of providing treatment in accordance with local conditions and pushing forward the progress step by step, to transform immigrant workers that have established stable labour relationship and have worked in the town for certain years into town citizens. In super large cities, the population should be controlled rationally. In large and middle sized cities, the population management should be strengthened and improved, so as to keep on exerting the important role of absorbing migrant population. In middle and small cities as well as small towns, the conditions of population transformation should be broadened according to the real situation. Encouraging different areas or districts to explore related policies and measures, so as to define the scale of the population being transformed.

For the migrant workers who do not fulfil the conditions of the being registered in towns temporarily, the public service to them should be improved and the rights protections should be strengthened. Children of migrant workers should enjoy the equal rights to compulsory education, and the continuity or connection between middle school and high school should be well handled. These tasks should be mainly shouldered by the primary and middle schools of the cities or towns that have received the migrant workers. The migrant workers who have established stable

labour relationship with enterprises should be included into the basic retirement insurance and medical insurance of township workers. Establishing basic training and allowance systems for migrant workers, pushing forward the general coordination in provincial level regarding the capital management for the trainings of migrant workers. Improving the residential conditions of migrant workers through multi-channels and multi-formalities, encouraging bringing qualified migrant workers into the housing guarantee systems of the towns by adopting various methods

Section 3. Increasing the comprehensive bearing capacity of cities and towns

Sticking to the principles of people foremost, land and energy saving, biological environment, safe and practical, focusing on characteristics, and culture and natural heritage preserving, scientifically working out the city plan, perfecting standards of city construction, strengthening the sanction effects of the city plan. Rationally define the borders of the city development, regulating the construction of the new towns and districts, enhancing the population density of the newly constructed districts, adjusting and optimising the using structures of lands used for construction projects, preventing the over expansion of super large cities. Preventing and curing the "city disease".

Overall planning the construction of public facilities in both up-ground and under-ground lands, comprehensively increasing the levels of transportation, telecommunication, electric power, heating, gas, drainage, waste water and garbage disposal infrastructures, and increasing the disaster prevention capacity. Enlarging green areas and public exercising spaces of cities, speeding up the construction of public culture and sports facilities. Pushing forward the reconstruction of the city villages and rurbans. Strengthening the supervision of the construction markets, standardizing orders of the construction markets. Deepening the reform on investment and financing systems of city construction, issuing bonds of city construction projects. Strengthening comprehensive management of cities. Pushing forward the construction of digital cities, enhancing the service levels on informationalization and subtlization. Attaching importance to culture continuity and protection, and improving humanistic environments of cities.

Graph 4 "Two horizontal and three vertical" strategic layout of urbanization
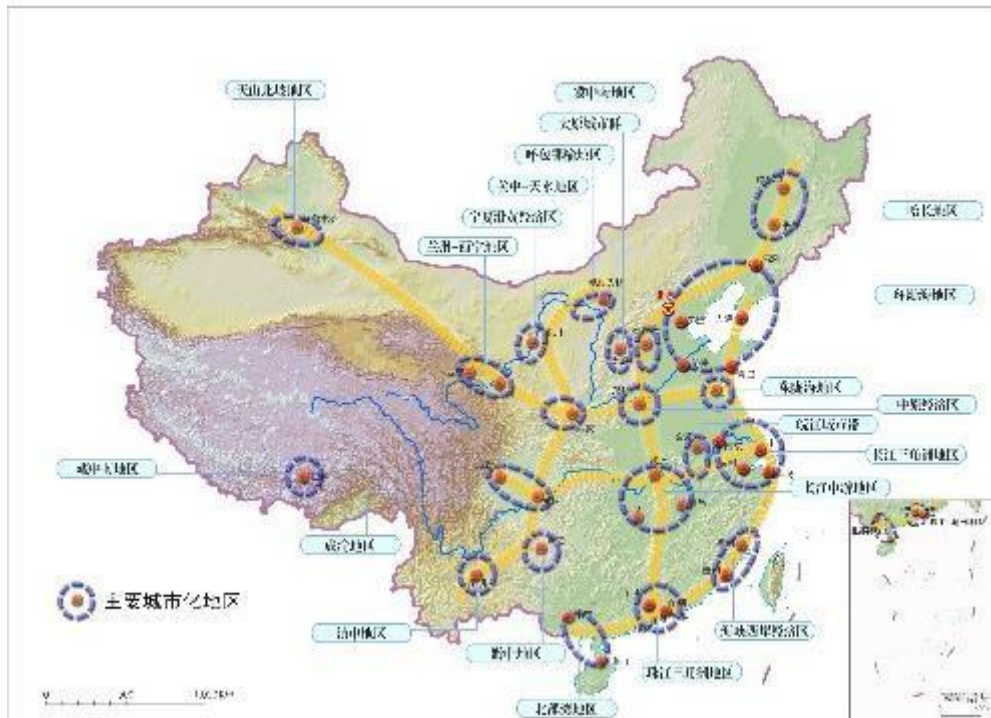
**Part VI: Green development, construct energy conservation and environment friendly society**

We will confront increasing resource and environmental restrictions, thus crisis awareness should be enhanced. We will establish green and low carbon development ideas and focus on energy conservation and emission reduction, improve incentives and constraint mechanisms, and stimulate the establishment of resource-saving and environmentally friendly production and consumption to strengthen sustainable development and improve ecological standards.

Chapter 21: Actively cope with global climate change

**Unit One: Control Greenhouse gas emissions**
**Unit Two: Increase adaptability to climate change**
**Unit Three: Launch wide ranging international cooperation**

**Summary:**

We will positively respond to global climate change. Massive reductions in energy consumption intensity and carbon dioxide emissions should be regarded as binding targets to efficiently control greenhouse gas emissions. This plan will reasonably restrict energy consumption, decrease the growth of industries with high energy consumption, and increase energy efficiency. The plan will strengthen energy conservation assessment responsibilities, complete energy-saving regulations and standards, improve market mechanisms and implement pivotal energy-saving projects. It will popularize advanced energy-saving technologies, accelerate the application of the Energy Management Contract, and pay adequate attention to industries such as construction and transportation. We will revise energy consumption structures and increase the use of non-fossil energy resources as well as increase forest cover,

volume, and carbon sequestration. We will increase adaptability to climate change, with special attention to the reaction to extreme weather. This plan will establish and improve the statistical monitoring system of greenhouse gas emissions and energy saving and emission reductions, devote more efforts to climate change research, accelerate low carbon application and research, and establish a carbon emission trading market. In addition, it will persist in common but differentiated principles of liability and vigorously launch international cooperation in response to global climate change.

We must attach equal importance to slowing down and confronting global warming, we must give free rein to the advancement of technology, we must perfect system mechanisms and policy systems and improve our capacity for dealing with climate change.

**Unit One: Control Greenhouse gas emissions**

We must carry out comprehensive adjustments to the composition of the industrial and resource structures, save energy and improve energy efficiency and increase forest carbon sinks, amongst several other measures. We must significantly reduce the intensity of our energy consumption and CO2 emissions, as well as effectively regulate greenhouse gas (GHG) emissions. We must rationally regulate our total energy consumption levels, carry out serious management of resource usage, accelerate the formulation of resource development plans, clarify total regulatory targets and define a workable mechanism. We will promote the planting of trees and forestation to increase the national forest-cover area to 12.5 million hectares. We will accelerate research, development and application of low carbon technologies and regulate GHG emitting sectors such as industry, construction, transportation and agriculture. We will look into creating low carbon product standardisation, labelling and authentication systems, establish an effective system for calculating GHG emission statistics and gradually create a carbon emissions trading system. We will advance low carbon pilot projects.

**Unit Two: Increase adaptability to climate change**

We will formulate an overall national strategy for combating climate change and strengthen our scientific research and observation to influence our analysis of climate change. We will take climate change factors into full consideration when planning and creating industrial sector composition, basic facilities and large scale projects. By strengthening our response to climate change, we mean creating a capacity to cope with extreme climate incidents; accelerating and expanding  technological research and development; and improving the levels of adaptation to climate change of certain key sectors (such as agriculture, forestry and water resources) and certain areas (such as by the coast and fragile ecosystems). We must enhance monitoring, advance reporting and prevention of extreme weather and climate incidents, and we must improve our capacity to guard against and alleviate natural disasters.

**Unit Three: Launch wide ranging international cooperation**

Adhering to the principle of common but differentiated responsibilities, we will actively participate in international negotiations and promote the establishment of a

fair and reasonable international system for confronting climate change. We will strengthen international exchange and strategic policy dialogue on climate change. We will also develop pragmatic cooperation in areas like scientific research, technology research and development and capacity building, as well as push for the establishment of an international cooperation platform and management system for funding and technology transfer. We will provide help and support to developing countries in confronting the challenges of climate change.

Chapter 22: Strengthen energy conservation and management

We will strengthen energy conservation management. We will formulate and implement limits on energy consumption per unit of production in energy-intensive industries and energy efficiency standards for the end-use of energy-consuming products. We will strictly enforce the system for assessing and examining energy savings in investment projects.

**Unit One: Vigorously enforce energy conservation**

Four key areas for energy conservation:
1) Energy-saving conversion projects
2) Energy-saving projects that benefit the people
3) Demonstration of energy-saving technologies in industry
4) Promote energy performance contracting

**Unit Two: Enhance water resource conservation**
**Unit Three: Conserve and intensify land usage**
**Unit Four: Enhance exploration, protection and rational development of mineral resources**

**Summary:**
We will emphasize resource conservation and management. We will fulfill conservation priority strategies and fully implement the controlled use of resources, two-way regulation from both the supply and demand sides and differentiated management. We will reinforce the geological survey of energy and mineral resource conservation while legitimately developing and integrating strategic areas for energy and mineral resources, and installing critical mineral resource reserve systems. Land management systems should be further improved. We will strengthen annual planning and monitoring, formulate land conservation standards and reinforce evaluation of land use and conservation. We will pay adequate attention to water safety in order to build a water-saving society by setting up water resource allocation systems and enhancing water resource management and paid utilization. Desalination technology should be highly encouraged. Groundwater exploitation should be rigorously restricted.

Chapter 23: Vigorously develop circular economy

**Unit One: Implement circular production methods**
**Unit Two: Enhance the circular use of resources and recycling system**
**Unit Three: Popularize the green consumption model**
**Unit Four: Strengthen policy and technical support**

Seven key areas for circular economy key project:
1) Comprehensive use of resources
2) Demonstrate a recycling system for old waste products
3) 'City Mineral Resource' Pilots
4) Industrialize remanufacturing industries
5) Exploit kitchen waste resources
6) Transform Industrial/Economic Zones to the circular model
7) Promote the demonstration of circular resource techniques

**Summary:**

Vigorously develop the circular Economy. We will aim to improve the output efficiency of resource utilization, strengthen planning guidance, support fiscal and monetary policies, perfect the laws and regulations, implement extended producer responsibility and propel all links between production, circulation and consumption. We will speed up the development of the resource recycling industry, comprehensively utilize mineral resources, encourage the recycling of industrial waste, upgrade recycling systems and waste separation and recovery of renewable resources, and advance the industrialization of renewable resource recycling. We will encourage low carbon consumption models and lifestyles among the people and government. Our development model should adopt resource reduction, recycling, remanufacturing, zero emissions and industry links and popularize the classical recycling economic model.

Chapter 24: Intensify environment protection

**Unit One: Enhance the reduction and administration of pollutant emissions**
**Unit Two: Take precautions on environment risks**
**Unit Three: Enhance environmental supervision**

Four Key areas of environment governance projects:
1) The construction of waste (sewage and rubbish) treatment facilities
2) Restoring environmental health to rivers and lakes
3) Hazardous waste and soil pollution
4) Heavy metal pollution prevention and control

**Summary:**

Enhance environmental protection intensity. We will prioritize solutions for those lacking access to drinking water as well as air and land contamination which adversely affect people's health. We will enhance comprehensive governance and improve the environment. This plan will assign target responsibilities for emissions reduction and strictly control the discharge of pollutants. In addition, we should expand our control of major contaminants. The construction of waste (sewage and rubbish) treatment facilities should be accelerated. The prevention of sewage leaking into major river basins should be emphasized. We will limit air and noise pollution, strengthen the regulation of heavy metals, hazardous waste, and soil pollution. We must develop a regulatory capacity for nuclear radiation. We will implement standards for pollutant discharge and emissions and evaluate their effect on the environment as well as strengthen the supervision of law enforcement and complete

the accountability system for accidents and natural disasters. Coordinate environmental protection technology and economic policy and set up a polluter-pays system. Diversified financing mechanisms should be well-established to further develop environmental industries.

Chapter 25: Accelerate ecological protection and repair

**Unit One: Establish an ecological safety barrier**
**Unit Two: Strengthen ecological protection and management**
**Unit Three: Establish ecological compensation mechanisms**

**Summary:**

This plan will improve protection against natural disasters and mitigate their consequences. We will reverse the trend of ecological degradation from the grassroots by implementing major ecological restoration and bolstering natural forest conservation and reforestation. We will also comprehensively deal with desertification and soil petrification and preserve grasslands and wetlands. In addition, this plan will accelerate the establishment of ecological compensation mechanisms and the protection of major ecologically functional areas. It will reinforce water and soil conservation by promoting sand consolidation. Biodiversity should be preserved.

Chapter 26: Strengthen the construction of water conservation and disaster prevention and mitigation system

**Unit One: Improve the water supply protection capacity**
**Unit Two: Enhance high flood control capacity**
**Unit Three: Strengthen forecasting, prevention and emergency response to extreme weather, earthquakes and natural disasters**

**Summary:**

The construction of a water infrastructure to govern the tributaries of rivers and lakes enables high flood control capacity. We will accelerate the establishment of investigation and assessment systems in disaster-prone areas as well as developing a warning system, control system and emergency response system. The present plan will reinforce geographic disaster management in key areas, put together rescue teams, and raise the level of material support. It will also forge natural disaster risk evaluation and reasonably allocate production and living facilities in dangerous areas.

**Part VII: Innovation driven, implementing the strategy of reinvigorating the country through science and education and the strategy of strengthening the country through human resource development**

Chapter 27: Strengthen the capability of technological innovation
Chapter 28: Speeding up the reform and development of education
Chapter 29: Establish grand high-quality talent team

**Part VIII: Improve people's wellbeing, establish and improve basic public service system**

Take people's livelihood as a priority; improve employment, income distribution, social security, medical services and housing security to ensure and improve people's livelihood; advance equalisation of basic public services; and strive to share the fruits of China's development to benefit all Chinese people.

Emphasize the priority of people's wellbeing. Perfect the system arrangement on employment, income distribution, health and medical care, and housing etc. to ensure and improve people's wellbeing. Facilitate the equalization of basic public service. Endeavour to make all the citizens benefit from the development achievements.

Chapter 30: Improve basic public service

Fulfil the public service responsibility of the government, enhance the government's support capabilities, and gradually narrow the gap in basic public services between urban and rural areas.

1. Establish and improve the basic public service system
Clearly define the scope and standard of basic public services; secure expenditures for basic public services; strengthen the basic public service performance appraisal and administrative accountability; rationally divide up management powers of the central and local authorities; improve a basic service management system where the local governments play a leading role, with an integrated approach combining unified management and different levels holding different responsibilities.

*Scope and key areas of basic public services during the 12<sup>th</sup> Five-Year Plan period*

*01 Public education*
*a) nine-year compulsory education free of charge; accommodation fees exempted in boarding schools in rural areas during the years of compulsory education; b) secondary vocational education free of charge for rural students, students from urban families in economic difficulties and students studying agriculture-related majors; c) subsidies provided to children from families in economic difficulties, orphaned and disabled children to receive pre-school education.*

*02 Employment service*
*a) provide employment info, consultation, referral, labour mediation and arbitration services to urban and rural labourers free of charge; b) provide basic vocational training free of charge to unemployed people, rural migrant workers, the disabled people, and new labourers; c) provide employment assistance to people with employment difficulties and zero-employment families.*

*03 Social security*

*a) urban employees and residents to enjoy basic pension scheme, and rural residents to enjoy new countryside social pension scheme; b) urban employees and residents to enjoy basic medical insurance, and rural residents to enjoy new countryside cooperative medical scheme; c) urban employees to enjoy unemployment insurance, work injury insurance and maternity insurance; d) provide urban and rural residents living in economic difficulties with minimum living allowances, medical assistance, funeral and internet assistance and other services; e) provide welfare services to special groups of people including orphaned children, disabled people, households enjoying the five guarantees (childless and infirm old persons who are guaranteed food, clothing, medical care, housing and burial expenses), and elderly seniors.*

**04 Medical and health service**
**05 Population and family planning**
**06 Housing security**

*a) provide low-rent housing to urban low-income families with housing difficulties; b) provide public rental housing to urban lower-middle-income families with housing difficulties.*

**07 Public culture**
**08 Infrastructure**
**09 Environmental protection**

2. Innovate the ways of supplying public service
Reform the ways of supplying basic public service, introduce a mechanism of competition…
Promote the market-oriented reform of non-basic public service, further open up market access, encourage participation of social capital by various means…

Insist on the people-oriented and service-oriented principles. Discharge the government's public service duty, improve the maintaining ability of government. Gradually narrow the basic public service gap between urban and rural areas.

### Section 1 Establish and improve the basic public service system

Clearly define the areas and standards of basic public service, facilitate the improvement of public finance system, secure the expenditure on basic public service, and strengthen the system of performance evaluation and administrative accountability of basic public service. Reasonably divide the management power of central and local governments. Improve the public service management system, which is led by local government and combines centralization and localization.

Column 17 – The areas and key points of basic public service during the 12th 5-year plan period.

1. Public education
2. Employment service
3. Social security
4. Health and medical care
5. Population and family planning

6. Housing assurance
7. Public culture
8. Infrastructure
9. Environmental protection

*Section 2 Innovate the provision methods of public service*

Reform the provision methods of basic public service, introduce the competition mechanism, increase the amount of purchased service, and diversify the types of service providers and service provision methods. Facilitate the market-oriented reform in the field of non-basic public service, widen the market access, encourage the participation of social capital through various channels, strengthen the multi-level provision abilities, and meet the diversified demand of the people.

Chapter 31: Implementing the strategy of 'employment as priority'
Take promotion of employment as a priority for economic and social development; improve the mechanism to combine self-selection of jobs by labourers, employment regulation by market and employment promotion by government; create equal employment opportunities; improve employment quality and strive to achieve full employment.

1. Adopt more active employment policies
2. Strengthen public employment service
3. Build harmonious labour relations

Promotion of employment will be highly prioritized at the economic and social development agenda, reinforce an integrated mechanism of independent job-choosing, market-regulated employment and government led employment, create equal job opportunities, raise the job quality and promote full employment.

*Article 1 Implement a more active employment policy*

Develop labor-intense and service industry as well as small and micro size service industry, adopt all possible measures to enlarge employment rate. Establish employment-friendly policies, such as tax-reduction, job allowance, vocational training allowance, social security allowance, etc, strengthen employment of graduates, migrant workers, and people with difficulty in urban areas. Encourage self-employment with a better developed micro-credit fund, financial allowance and in terms of operational space, and so on. Improve a system that promotes employment throughout big government-invested projects. Develop employment aid policy; create more public-interest jobs via various channels. Encourage international labor cooperation.

*Article 2 Improve public service to promote employment*

Promote unified, regulated and flexible Human Resource market, improve rural and urban employment service system, and realize a nation-wide employment information database to provide quality service to laborer. Set up a vocational training system that

serves all laborer. Increase the vocational training capacity and level. Enhance self-employment training. Develop unemployment statistic ability in both rural and urban areas. Establish an unemployment monitoring and early warning system, and start with employment needs forecast.

*Article 3 Establish harmonious labor relations*

Coordinate the three-party labor relation, promote the full potential of government, labor union and enterprise in terms of shaping a benefit sharing system between enterprises and employees. Push for labor contract system in a comprehensive way and to a larger scale. Strengthen the labor law enforcement, develop the mechanism of labor dispute settlement, improve labor dispute mediation and arbitration, intensify labor security supervision and law enforcement efforts to ensure the interests of workers.

Chapter 32: Appropriately adjust income and distribution

Uphold and improve the distribution system whereby distribution according to work is dominate and multiple forms of distribution exist side by side. Gradually raise the proportion of national income distributed to individuals, increase the proportion of wages in the primary distribution of income and reverse the trend of a widening income gap gradually.
1. Deepen reform of wage system
Improve the minimum wage system and the wage guideline system. Increase the minimum wage standard. Strengthen the dual controls on total wages and wage scales in some industries.
2 Improve the distribution system to allow factors of production such as labor, capital, technology and managerial expertise to have a justified share according to their respective contribution
3 Improve redistribution adjustment mechanism. Accelerate the establishment of the redistribution adjustment mechanism based on taxation, social security and transfer payment. Reduce the tax burden on low- and middle-income people.
4 Rectify and standardize the income distribution system. Protect legitimate income and ban illegal income. Rectify the non-wage income and non-monetary welfare of SOEs, government organs and public institutions.

Accelerate formation of a reasonable and orderly income distribution pattern; strive to increase the proportion of resident income in the distribution of national income; gradually reverse the trend of widening income gap.

1. Deepen the reform of salary system
2. Improve the system to take into account the key elements of capital, technology and management in distribution

Improve a transparent, fair and equitable public resources assignment system; establish a mechanism for all Chinese people to share the gains from assignment of public resources including land, sea areas, forest and minerals; gains from the assignment to be mainly used for expenditures on public services. Enlarge the scope of state-owned assets gains that should be handed in to the state; increase the

percentage handed in, to be incorporated into public finance. Ensure the due proportion of technical achievements in income distribution. Establish and improve the system to determine salary according to operational and management performance, risks and responsibilities; strictly standardise the income of managers, especially senior managers, of state-owned enterprises and financial institutions in which the state holds a controlling stake.

3. Accelerate the improvement of re-distribution adjustment mechanism Accelerate improvement of the re-distribution adjustment mechanism with taxation, social security and transfer payment as the key instruments.

4. Rectify and standardise the order of income distribution

**Objective:**

- Accelerate the formation of a reasonable and orderly Incomes Distribution system
- Enlarge the portion of resident's income in the distribution of national income as well as the portion of labor remuneration in the initial distribution
- Ameliorate the excessive disparities in wealth and unfair allocation and reverse the trend of a widening income gap

**1. Deepening the wage system reform**

Strengthen the wage payment guaranteeing system, raise the minimum salary standard, Establish the enterprise salary survey system and the salary information distribution system,
Reform the payroll management approach in the state-owned enterprise and adjust the payroll and salary standard in some industries aimed at reducing the widening gaps between urban and rural areas and among different industries. Perfect wage system for public servant

**2. Improve the importance of capital, technological and directorial factors in distribution system**

Establish public resource (forest, sea, land and mineral) revenue national sharing system; contribute the benefits mainly to public service.
Contribute a larger scope and portion of state-owned capital incomes to fiscal revenue
Ensure the technological achievement get deserving consideration in income distribution
Establish a rational wage system and regulate the income and mission expense of senior managers in state-owned enterprise and State-owned holding company.

**3. Accelerate the improvement of incomes redistribution mechanism**

Adjust the personal income tax threshold and the personal income tax rate structure and enlarge the high-income group's tax .
Adjust the fiscal expenditure structure; raise the expenditure proportion for public service and social security, raise resident social incomes.

**4. Regulate the distribution order**

Perfect the law and regulations, strengthen the government management and the law enforcement to accelerate the establishment of a transparent and fair incomes distribution system.

Protect the legitimate income and ban illegitimate income, regulate the divers incomes in addition to salary in public institution and stated-owned enterprise.

Strengthen the Non-tax revenue management, ban and regulate divers' administrative fee and government funds and accelerate the construction of monitoring system.

Chapter 33: Improve the social security system which covered urban and rural residents

**Objective:**

- Stick to the strategy of social protection reform in China, notably **wide coverage, ensured basic benefits, multi-levels and sustainability**
- Accelerate the establishment of social security system, which will cover both urban and rural residents,
- Raise the level of social insurances steadily

**1. Accelerate the improvement of social insurance system**
- Achieve the full coverage of the new rural social pension insurance scheme
- Improve the pension insurance scheme for urban workers and non-working urban residents (reaching the basic pension insurance at provincial pooling level; reaching basic pension funds at national pooling level and accomplishing the portability of pension insurance )
- Promote gradually the effective interface/link between urban and rural pension schemes.
- Initiate the reform of pension scheme for civil servants and staff of public agencies
- Develop the enterprise annuity and occupational pension
- Improve the working injury insurance scheme (increasing coverage, raising benefit level, establishing an integrated working injury insurance system covering prevention, compensation and rehabilitation).
- Improve unemployment insurance and maternity insurance schemes.
Bring commercial insurance into play for its complementary role.

**2. Strengthen the establishment of social assistance system**
- Improve the urban and rural minimum living standard security systems
- Improve the dynamic adjustment mechanism of minimum living standard and increase the subsidy standard
- Strengthen the policy links between the urban-rural minimum living standards, minimum wage, unemployment insurance, and poverty reduction. Raise the support level of rural five guarantees
- Strengthen the special care and placement system
- Improving natural disaster system and temporary relief system

**3. Active development of social welfare and philanthropy**
- Enlarge gradually the scope and the benefit level of social welfare security.
- Improve social welfare service system by combination of family, community and welfare agency.

- Strengthen the welfare service for the disabled and the orphan.

Speed up the development of philanthropy through raising awareness, developing charities and putting the tax preference policy for public welfare donations into effect.

Chapter 34: Improve basic health care system

1. Strengthen the building of public health service system
2. Strengthen the building of urban and rural medical service system
3. Improve the medical insurance system
4. Improve the medicine supply system
5. Actively and steadily advance the reform of public hospitals
6. Support the development of traditional Chinese medicine

*Key medical and health projects*
*01 Basic medical insurance system*
*02 Public health service system*
*03 Medical service system*
*04 Training basis for general practitioner doctors*
*05 Application of information technology in medical and health system*

In accordance with the requirements basic protection, grassroots strengthening and mechanism building, we increase the government investment, deepen the reform of pharmaceutical and healthcare system, set up and improve the basic medical and health care system, speed up the development of medical and health care, give a priority to meet the basic medical and health of urban and rural residents.

**1. Strengthen the development of public health care system**

We will improve the public health care network to prevent and control the outbreak of major diseases, increase the standard of average expenditure on basic public health services, expand the basic national public health service programme, implement major public health projects, strengthen the prevention and control of major communicable diseases as well as chronic, occupational, endemic and mental illness and enhance our capacity to respond to public health emergencies. We will gradually complete the construction of health service network in rural areas, move toward universal access to health education, implement the national health plan and make people fully aware of no smoking in public. The electronic health record will be put in place for 70% of urban and rural residents. The mortality rate of pregnant and post-natal women will be decreased to 22/ 100,000, the mortality rate of infant will be decreased to 12‰.

**2. Strengthen the construction of medical service system in urban and rural areas.**

To have the county hospitals play the leading role, township and village hospitals serve as a basis, we will strengthen the construction of the three tiered county, township and village health service network in rural areas. Improve the new type of

urban medical service system based on the community health service, increase medical care resources in favour of rural areas and urban communities. Accelerate the comprehensive innovation of primary medical care unit, set up multi-channel subsidies to facilitate a new operating mechanism. We will build up the ranks of basic medical service staffs, with the emphasis on cultivation of the general medical practitioner, perfect the incentive policies for them to work in grassroot level, the share of the general medical practitioner will reach 0.2 per 1000 persons. We will press forward the grading treatment and two way transfers system to create a situation in which all kinds of urban and rural medical institutions can benefit from division of labor and coordination of work. We will improve the regional health planning, encourage and guide the nongovernmental investors to establish medical institutions in order to form a diversified hospital running system.

### 3. Improve medical insurance system

We will improve the basic medical insurance system covering urban and rural residents, promote the development of basic medical insurance systems for urban workers and residents, new type of cooperative medical care system in rural areas and medical assistance. Gradually increase the fund raising standard, level of guarantee and minimize the gap of urban medical insurance and rural cooperative medical care. Increase the maximum payment and in-patient pay scale of medical insurance systems for urban workers and residents and new type of cooperative medical care system in rural areas to promote out-patient management. We will work out methods for connecting each system, integrate resources and raise the level of management step by setp, realize the transformation and continuity of the medical insurance and remote settlement of expenses for medical treatment. We will promote immediate settlement of basic medical expenses and innovate the means of payment. Commercial medical insurance will be actively developed the as a supplementary to the medical insurance system.

### 4. Improve the drug supply guarantee system

We will put in place a sound system to guarantee supplies of basic drugs based on the national system. We will fully implement the national system for basic drugs at the primary level and gradually equip to its utmost and preferentially use the basic drugs in other medical institutions. Establish dynamic list adjustment system of basic drugs, improve the systems of both price formation and dynamic adjustment, and increase the actual reimbursement level. Strengthen the drug producing oversight, overhaul the distribution order of the drugs, standardize the concentrated drug procurement and drug safety of medical institutions.

**5.** Actively yet prudently push forward the reforms of the public hospital

Adhered to the non-profit nature of the public hospital, we will actively explore the effective ways that institutions stop performing government functions, that supervision be separated from day to day operations, that healthcare be separated from pharmacy and that for profit institutions be separated from non-profit ones. Accelerate administrative system of modern hospital, establish scientific and reasonable system for selecting and employing personnel and system for distribution. Reform the subsidy system for public hospital and actively press forward the reform

on means of payment. In light of patient centred spirit, we will strongly improve the internal management of public hospital, optimize the service process, and standardize the diagnosis and treatment in order to make it convenient for communities. Advance the system whereby the registered doctors are allowed to work in more than one practice, establish standardized training system for residents, close attention should be paid to mobilize the activity of medical staff.

**6. Support the development of Traditional Chinese Medicine.**

We will attach equal importance to Traditional Chinese Medicine and Western Medicine, develop the functions of treatment and preventive health care of Traditional Chinese Medicine and advance its inheritance and innovation, we will also pay greater attention to the development of ethnic minorities medicines. We will strengthen the institution construction and human resource development, strengthen the resource protection, research and exploration and reasonable utilization, push forward quality certification and standard formulation. Traditional Chinese Medicine should be encouraged to provide and make use of the medical security policy and essential drugs policy.

Column 18 key areas of pharmaceutical and healthcare

01 basic medical insurance system
02 public health service system
03 medical service system
04 Training base for general medical practitioner
05 pharmaceutical and healthcare informationization

Chapter 35: Improve construction of affordable houses

Combine government control with market regulation; accelerate improvement of housing mechanism and policy system that are in line with the national conditions; gradually form a housing supply and demand pattern featuring substantially balanced total aggregates, reasonable structure, harmonisation between housing prices and consumption capabilities; achieve the goal that everyone has a home to live in.

1. Improve housing supply system
2. Increase the supply of low-income housing
3. Improve the real estate market regulation

Persist in the combination of the government control and the market regulation, to perfect the housing mechanism and the policy system that applies to the Chinese condition. Gradually set up a housing demand - and - supply pattern under which the gross is balanced in general, the structure is reasonable in general, the housing price and the consumption capacity adapt in general, so as to realize the housing assurance for the public.

**Section 1 Perfect the Housing Supplying system**

Aim at assuring the basic needs, direct the reasonable consumption, accelerate the establishment of the housing demand - and - supply system in which the basic assurance are provided mainly by the government while the demand of multi-level are filled mainly by the market itself. For the low-income families with housing difficulties in town, to practice the low-price renting mechanism, for the lower-middle-income families with housing difficulties, to practice the public renting mechanism, for the up-middle-income families with housing difficulties, to practice the mechanism that combine the renting and purchasing of the commercial house. Establish and perfect the housing standard system which is commercial, adaptable, environmental friendly and resources saving, advocate the consumption model that applies to the domestic condition.

**Section 2 Enhance the supply of the affordable house**

Strengthen the governmental responsibility, put more effort on the construction of the affordable housing project, basically release the supply deficiency of the affordable house. Collect the low-price renting house resources from multi-channel, perfect the renting subsidy mechanism. Give priority to the development of the public renting house, gradually make it the main body of the affordable house. Accelerate the reconstruction of the shanty towns. Standardize the development of the affordable house. Establish a stable investment mechanism, enhance the support of the fiscal fund, the house fund loan and the bank loan, steer the public participation and the construction of the affordable house. Strengthen the management of the affordable house, make a just, open and transparent policy and supervision procedure, strictly follow the standard for access, retreat and charge.

**Section 3 Improve the market control for the real estate**

Further fulfil the local government's responsibility and the accountability system, bring it into the development goal of various regions that to ensure basic housing, stabilize the house price and intensify the market monitoring, provincial governments take the overall responsibility while the governments at municipal and county level take the direct responsibility. Perfect the land supplying policy, increase the land gross for housing, give priority to the arrangement of the affordable housing land , effectively expand the supply of the general commercial house. Speed up the formulation of the basic housing assurance law, modify the urban real estate management law and relevant regulations, perfect the housing fund mechanism, reinforce the management and expand the coverage. Intensify the market supervision, standardize the order of the real estate market. Speed up the construction of the housing information system, improve the information publication system.

Chapter 36: Comprehensively carry out population work

Control the population size, improve the health of the people, optimize population structure, and promote the sustainable and balanced development of the people.

*Section 1 Strengthen the family planning service*

Insist on the basic state policies of family planning, gradually improve related policies. Improve the preferential policy system for families obeying the family planning rules. Increase family development capacity. Increase the amount of subsidies for families

obeying the family planning rules, expanding the beneficiary groups and establishing the dynamic adjustment mechanism. Continuously promote the construction of population and family planning service systems, expand the service scope. Comprehensively curb the trend of expanding sex ratio of the newly-born. Strengthen the measures to prevent the newly-born deformity problems. Strengthen the management of family planning service to floating population.

### Section 2 Promote the overall development of the women

Insist on the basic state policies of gender equality, implement the women's development planning, secure the legal interests and rights of the women. Promote the employment and entrepreneurship of the women, improve the women's capacity to contribute to economic development and social management. Strengthen the labor protection, social welfare, health care, poverty relief and poverty reduction, and legal assistance for women. Improve the gender statistics system, improve the development environment for women. Crack down the crimes of violence against women and abducting and trafficking women.

### Section 3 Ensure the priority of the development of the children

Insist on the policy of the priority of the children, implement the Children development outline, protect children's rights to survival, development, beiing protected and the right to participation. Improve the environment of the growth of the children, enhance the welfare of the children, eliminate the discrimination against girls, and endeavor to safeguard their healthy growth physically and psychologically. Strengthen children's elementary education and social behavior education. Effectively resolve some remarkable problems concerning left-behind children, orphans, disabled children and migrant children. Crack down crimes such as child trafficking, abandonment, etc.

### Section 4 Actively tackle the aging of population

Establish the social service system for the elderly involving family, communities and service provider institutions. Accelerate the development of social care service for elderly, cultivate and strengthen service industries for the elderly, strengthen the public welfare facilities for aged care, encourage the social capital to develop the nursing organization for elderly. Expand social service from basic daily life care to medical and healthy care, aids facilities, spiritual comfort, law service and emergency aids. Increase the facilities in the elderly activity centre in the communities. Develop and utilize the elderly human resources.

### Section 4 Accelerate the development of industries for people with disabilities

Improve the social security system and social service system for people with disabilities; provide the stable policy security protection to the life and development of people with disabilities. Implement the focus rehabilitation and care service project, implement the urgency rescue rehabilitation project for people with disabilities between the age of 0 to 6, promote the "everybody has rehabilitation service". Actively carry out the employment service for people with disabilities and vocational training. Improve the assistance and support service in life care and the production

work for people with disabilities in rural area. Diversify the life of people with disabilities in culture and sports aspects. Facilitate the barrier-free environment development. Design and implement the national action plan of disability prevention, effectively control the occurrence and deterioration of the disability.

Column 19 Action Plan for improving people's wellbeing

1. Expand the employment scale in both rural and urban areas
2. Increase the minimum salary level
3. Increase the pension benefit level
4. Increase the medical care benefit level
5. Increase the minimum living allowance level in both rural and urban areas
6. Decrease the amount of rural population below the poverty line
7. Lighten the taxation burden of the resident
8. Implement the urban housing project for low-income families
9. Improve the employment and social security service system
10. Increase the expenditure of state-owned capital revenue on people's wellbein

Control the population size, improve the quality of the people, optimise the population structure and promote long-term and balanced development of population.

1. Enhance family planning services
2. Promote comprehensive development of women
3. Ensure children's development as a priority
4. Actively address the aging of population
5. Accelerate the development of the cause for the disabled people

## Action plan for improving people's livelihood

### 01 Expand urban and rural employment
Create 9 million new jobs on average each year in urban areas; transfer 8 million rural labour force annually. The rate of signing labour contracts by enterprises to reach 90%; the rate of signing collective employment contracts to reach 80%.

### 02 Increase the minimum wage standard
Minimum wage standard to increase by no less than 13% on average each year. The minimum wage standard in vast majority of areas to reach no less than 40% of the average wage of the local urban employees.

### 03 Improve the pension scheme standard
Achieve nationwide coordination of basic pension fund for urban employees. Increase the number of urban residents newly enrolled in the pension insurance scheme by 100 million people. Steadily increase the basic pension received by urban employees; urban non-employed residents above the age of 60 to enjoy basic pension. Achieve full coverage of new countryside social pension scheme, and increase the standard of basic pension.

### 04 Improve the standard of medical insurance

Increase the number of urban and rural residents newly enrolled in the basic medical insurance scheme by 60 million people. Steadily increase the level of subsidies from fiscal budget to the basic medical insurance scheme and the new countryside cooperative medical scheme; the percentage of payment covered by the medical insurance fund within policy scope to increase to over 70%.

**05 Increase the urban and rural minimum living standards**
Increase the minimum living standards for urban and rural residents by over 10% on average each year.

**06 Reduce the number of rural population living in poverty**
Increase the input in poverty alleviation; steadily increase the standard of poverty alleviation; and substantially reduce the number of population living in poverty

**07 Cut taxes for residents**
Increase the personal income and wage tax deduction threshold, and reasonably adjust the tax rate structure for personal income tax in the early phase of the 12th Five-Year period; establish and improve the personal income tax system featuring combination of integration and classification in the middle and late phase of the 12th Five-Year period.

**08 Implement the housing project for low-income urban residents**
Construct and renovate 36 million apartments for urban low-income families; the coverage of low-income housing to reach 20% nationwide. No less than 10% of the net income from land assignment to be used for construction of low-income housing and renovation of units in run-down areas.

**09 Improve the employment and social security service system**
Reinforce the building of service facilities for public employment, social security, labour Inspection, mediation and arbitration services. Promote the use of social security all-in-one card. The number of standard social security insurance cards issued nationwide to reach 800 million, covering 60% of the population.

**10 Increase the proportion of the state-owned assets gains spent on people's livelihood**
Enlarge the scope of state-owned assets gains that should be handed in to the state; steadily increase the percentage collected from the state-owned assets gains, with the incremental part mainly used for expenditures on people's livelihood such as social security.

**Key indicators of economic and social development during the 12<sup>th</sup> Five-Year Plan period**
*(Excerpt on people's livelihood)*

| Indicator | 2010 | 2015 | Average annual growth rate | |
|---|---|---|---|---|
| **Economic development** | | | | |
| - GDP (trillion yuan) | 39.8 | 55.8 | 7% | Expected |
| - Urbanisation rate (%) | 47.5% | 51.5% | 4% (accumulative figure over 5 years) | Expected |
| **People's livelihood** | | | | |
| - Per capita disposable income of urban residents (yuan) | 19109 | > 26810 | > 7% | Expected |
| - Per capita net income of rural residents (yuan) | 5919 | > 8310 | > 7% | Expected |
| - Registered urban unemployment rate (%) | 4.1% | < 5% | | Expected |
| - Number of new jobs in urban areas | | | 45,000,000 people (accumulative figure over 5 years) | Expected |
| - Number of urban residents enrolled in basic pension scheme | 257 million people | 357 million people | 1% (accumulative figure over 5 years) | Binding |
| - Rate of enrolment in basic medical insurance in urban and rural areas (%) | | | 3% (accumulative figure over 5 years) | Binding |
| - Number of low-income apartments built in urban areas (units) | | | 36 million units (accumulative figure over 5 years) | Binding |
| - Total population | 1.341 billion | < 1.39 billion | < 7.2‰ | Binding |
| - Average life expectancy (years of age) | 73.5 | 74.5 | 1 year (accumulative figure over 5 years) | Expected |

*\* Target is set to increase the income of urban and rural residents at a rate no lower than that of the GDP growth. During implementation, we should strive to achieve the same pace of growth with economic development.*

**Part IX: Cure the symptoms and the roots, strengthen and innovate social management**

Adapt to the new environment with profound changes in the economic system, social structure, interest pattern and mode of thinking; innovate the mechanism of social management system; strengthen social management capacity building, build and improve the social management system with Chinese characteristics, and ensure that the society is full of vitality, harmony and stability.

Chapter 37: Innovate social management institution

1. Improve social management structure. Play the leading role of government, strengthen its function of social management and public service, construct service government; play the coordination role of people's organization, grassroots autonomous organization, various social organizations and enterprises, promote the standardization, profession, socialization and legalization of social management. Mobilize the organize the public to participate the social management orderly, foster the citizen awareness, realize self management, service and development.
2. Innovate social management system. Strengthen the management of the origin, dynamic management and crisis respond system. Pay more attention to the construction of people's wellbeing, equal communication and consultation, and the capacity of responding to emergencies.

1. Improve the social management pattern
Improve the social management pattern which features the Party taking the leadership, the government assuming the responsibility (service-oriented government), the society (social organisations, enterprises and public institutions) providing collaborative support and the public engaged in orderly participation.
2. Innovate the social management mechanism
Accelerate building of the social management mechanism which combines tackling issues at their source, dynamic management and emergency response:
Tackling issues at their source – put more focus on people's livelihood and system building, adhering to scientific, democratic and law-based decision making, avoiding and reducing occurrence of social issues.
Dynamic management – put more focus on equal communication and consultation, addressing lawful and reasonable appeals from the public, timely resolving social conflicts.
Emergency response – put more focus on building emergency response capacity, effectively addressing and properly handling unexpected public incidents, increase harmonious elements while dissolve negative elements, and bring out vitality of the society.

Chapter 38: Intensify the autonomy and service function of urban and rural community
1. Improve the management structure of community. Strengthen the autonomous system under the leadership of the Party, achieve positive interaction between government administrative management and public autonomy. Strengthen the

construction of community committee of urban-rural connection areas, agglomeration areas of floating population.
2. Construct the platform for social management and service. Guided by the public needs, integrate the management function and service resources of population, employment, social security, civil affairs, health, cultural, maintaining stability and petition. Improve the service and management of floating population.

1. Improve the governance structure of communities
Improve the system of grass-roots mass self-governance under the leadership of community Party organisations; advance the community residents' democratic management of community affairs and public welfare establishments according to law; achieve effective connection and sound interaction between government administration and grass-roots mass self-governance. Improve the system of community neighbourhood committees….actively develop community service, public welfare and mutual assistance social organisations…guide various kinds of social organisations and volunteers to participate in community management and service. Encourage innovation of social management and service mode that suit local circumstances.
2. Build community management and service platform
Improve the grass-roots management and service system; … extend the basic public services function… Standardise and develop professional service agencies such as community service stations to effectively undertake tasks assigned by grass-roots government authorities. … Integrate management functions and service resources in such areas as population, employment, social security, civil affairs, health, culture as well as comprehensive management, maintaining stability and handling complaints. … Strengthen management of services to floating population.

*Plan to enhance the service capacities of urban and rural communities*
*01 Build a comprehensive community service platform*
*02 Application of information technology in communities*
*03 Build human talents for community service*
*Implement a plan for 500,000 university students to serve in urban and rural communities … The number of registered community volunteers to account for over 10% of the resident population.*

Chapter 39: Strengthen the construction of social organizations
1. Foster the development of social organizations. Establish the management system, prioritize the development of economic, charity, and community social organization. Improve the supporting policies, promote the government to transfer functions to social organizations, open more public resources and fields.
2. Strengthen the supervision and management of social organization.

Attach equal importance to cultivation, development, management and supervision; promote healthy and orderly development of social organisations; bring into play their functions of providing services, reflecting appeals and standardising behaviour.
1. Promote development of social organisations
Prioritise development of economic, public charity, urban and rural community social organisations; promote reform and development of industry associations and chambers of commerce.

2. Strengthen supervision of social organisations


Chapter 40: Improve the mechanism of protecting public interests
1. Expanding the channels for expressing public opinions. Improve the public hearing and expert consultation system of public decision-making process. Improve the petition system, stress the collection and feedback of public opinion, play the expression function of people's organization, trade association and media, actively respond to public concern.
2. Improve the meditation mechanism to social contradictions. Establish the risk evaluation system for major projects and major policies.

Strengthen and improve a mechanism to safeguard the people's rights and interests with the Party and the government playing a leading role; form scientific and effective mechanisms of interest coordination, expression of interest appeals, conflict conciliation, and rights protection; effectively safeguard the lawful rights and interests of the people.
1. Expand channels to reflect social conditions and express public opinion
Improve the system of keeping the public informed and undertaking public hearings, expert consultation and debate during the public decision-making process; expand public participation. Improve the mechanism for petition work, pay attention to collection of public opinion and information feedback, effectively implement the system of officials receiving visits and handling letters from the public. Bring into play the function of public organisations, industry associations and the media to express social interests; bring into play the role of the internet as a new channel for reflecting social conditions and expressing public opinion; actively and proactively respond to social concerns.
2. Improve the mechanism for social conflicts mediation
Improve the leadership and coordination, screening and fore-warning, counselling, mediation and handling mechanisms to resolve social conflicts. Strengthen the joint action of public, administrative and judicial mediation; join various forces to effectively prevent and resolve social conflicts arising from labour disputes, land expropriation and house demolition, environmental protection, food and drug safety, business restructuring and bankruptcy. Establish a social stability risk assessment mechanism for key projects and major policy formulation. Improve the mass work system; rely on grass-root Party organisations, industry management organisations and people's self-governance organisations, full into full play the functions of trade unions, Communist Youth League and women's federation, join forces to safeguard the rights and interests of the people, take into account public concerns from all aspects, and actively resolve social conflicts.


Chapter 41: Strengthen the construction of public security system
1. Safeguard the security of food and drugs
2. Strict management on safe production
3. Improve the emergency responding system
4. Improve public security

Push forward the establishment of a public security system that combines proactive prevention and control and emergency response, and integrates traditional and modern approaches.
1. Ensure food and drug safety
2. Tighten up safe production management
3. Improve emergency response system
4. Improve social public order control system
… Establish a national basic information database of population. Strengthen settlement, relief, help, education, management and medical assistance for special groups of the population; strengthen rectification on the weak links and key areas of public security. Enhance intelligence information, prevention and control, and rapid reaction capabilities, improve the ability to ensure public security and social order. …


**Part X: Inherit and innovate, promoting the big development and prosperous of culture**

Chapter 42: Improving the civilization and quality of all nation
Chapter 43: Promote cultural innovation
Chapter 44: Promote prosperous development of cultural undertaking and cultural industry

**Part XI: Reform in difficult areas, improving socialism institution of market economy**

Chapter 45: Adhere and improve basic economic system
Uphold and improve the basic economic system, with public ownership playing a dominant role and diverse forms of ownership developing side by side, and create an institutional environment under which economic entities under all forms of ownership use factors of production equally in accordance with the law, engage in fair competition in the market, and enjoy equal legal protection.

1 Deepen the reform of state owned enterprises
Channel state capital into industries pertinent to national security and economy through discretionary and rational capital injection or withdrawal. Overall listing shall be achieved for large SOEs that get the requisite qualifications. Large SOEs that are not able to be listed shall put forward the reform of diversity of equities. Large SOEs that shall remain solely funded by the State shall carry out corporate system reform.
Put forward the reform in the salt and railway industries.
Deepen reforms of the power, telecommunication, petroleum, civil aviation and public facilities industries.

2 Optimize state owned capital management system
Uphold the separation of the functions of government as public administrator and state-owned assets investors. Promote justified distribution of state owned assets yields.

3 Support and guide the development of the non-public economy
Support and guide private capital to enter the industries and sectors that are not forbidden by laws and regulations. It is not allowed to set additional conditions for private capital with regard to market access. Support non-public enterprises to participate in the reform of state owned enterprises.

Chapter 46: Promote administrative reform

Section 1 Speed up the transformation of government function

Accelerate the separation of the functions of the government from those of enterprises, state assets management authorities, public institutions and market-based intermediaries. Reduce government intervention in microeconomic activities. Continue to optimize government structure, administrative levels and civil service. Reduce administrative costs, resolutely advance reforms of greater departments with integrated functions. Address the problems of overlapping organizations and functions and conflicting policies from different departments. Explore the system of provinces directly governing counties (cities) where conditions are adequate.

Section 2 Strengthen scientific and democratic decision-making mechanism

Solicit opinions on a extensive basis with regard to major policy decisions concerning the overall economic and social development.

Section 3 Strengthen the system of government performance assessment and administrative accountability

Section 4 Step up the restructuring of different categories of public institutions
Promote the reform of public institutions in the field of science and technology, education, culture, public health and sports. Establish a sound legal person governance structure in the enterprises transformed from public intuitions.


Chapter 47: Accelerate fiscal and taxation system reform
Actively establish a fiscal taxation system that is beneficial to the transformation of the economic system.

Section 1 Deepen the fiscal system reform

According to the requirements of financial resources of governments in line with their respective powers, on the basis of rational definition of respective powers, financial administration among government at all levels shall be further organized. Improve transfer payments system, and increase the scope and proportion of general transfer payments, esp. equalization transfer payments. Strengthen guaranteed basic supply of financial service by government at county level. Establish a sound local government debt management system and explore the possibility of issuing local government bonds.

Section 2 Improve budget management system

Improve public finance budgets. Make budgets for government managed funds more detailed. Establish a sound budget for the state capital operations. Improve budget implementation system.

Section 3 Reform and improve tax system

Expend the scope of value added tax, and reduce business taxes. Improve personal income tax system. Transform administrative fees to taxes. Promote reform in resource taxes and farmland use tax. Promote reform on property tax.

Chapter 48: Deepen the financial system reform

Section 1 Deepen reform of the financial institutions

Strengthen internal management and risk management. Deepen the reform of the National Development Bank, press ahead with the reform of Export-Import Bank of China and China Export & Credit Insurance Cooperation, advance the reform of Agriculture Bank of China, and the reform of Postal Savings Bank of China.
Establish deposit insurance system.

Press ahead with the commercialized transition of the financial asset management companies.

Section 2 Press ahead with the establishment of the system of multilevel financial markets

Improve the launch of the second board. Expend the scope of the STARS pilots. Promote the development of the Over the Counter Market. Explore the possibility of launching the international board. Move forward with asset securitization.

Section 3 Improve financial control mechanism

Improve the market-based managed floating exchange rate regime. Press ahead with the reform of the foreign exchange management system. Expend the scope of cross-border yuan trade. Push forward RMB capital account convertibility. Improve the management of foreign exchange reserve, expend the scale and increase the yields.

Section 4 Enhance financial regulation

Establish cross-boarder, cross-market financial regulation rules. Strengthen supervision on the systemically important financial institutions (SIFIs). Participate in the amendment to international financial standards.

Chapter 49: Deepen the reform of price of resource products and fees for environmental protection
Develop a sound, flexible mechanism for setting prices for resource products capable of reflecting supply and demand in the market, resource scarcity, and the cost of environmental damage.

Section 1 Improve the mechanism for setting prices for resource products

Press ahead with progressive pricing for household electricity and water consumption. Make the price ratio of natural gas to alternative energy sources more reasonable.

Section 2 Carry forward the reform of environmental protection charges

Section 3 Establish a sound resource property rights exchange mechanism

**Part XII: Mutual beneficial and win-win, improving the opening up**
China must adapt to a more balanced growth model, in which we place equal stress on imports, exports, attracting foreign capital and promoting outbound investments, instead of the current dependence on exports and foreign capital. We must implement more active strategies for "opening up" and unceasingly explore the new areas of reform. We will expand and deepen the convergence of interests for all parties. We must adapt the system to a demand-based economic model and effectively prevent risks in order to promote development, reform and innovation.

Chapter 50: Improve regional opening up pattern

China will continue the expansion of "opening up" policies and coordinate the opening up of coastal, inland and bordering areas to achieve a mutually beneficial and balanced pattern of "opening up".
Section one: Deepen the "opening up" of the coastal areas

We will change the focus of the "opening up" of coastal areas from international manufacturing to research and development, advanced manufacturing and services. These areas will pioneer and internationalize the adaption of administrative management systems to achieve international competitiveness. We will also push for a further "opening up" of the service sector, promote the development of international trade in services, and attract foreign investment in the service sector. In this, we will deepen the "opening up" of the special economic areas of Shenzhen and other cities, Shanghai Pudong New Area and Tianjin Binhai New Area. We will speed up the internationalization of Shanghai as a centre for finance, shipping, and trade.

Section two: Expand the "opening up" of inland areas

The "opening up" of inland areas will depend on central cities, urban clusters and various investment and development zones. We will make use of natural resources and the comparative advantages of labour, optimize the investment environment, and expand the use of "leading industries" for foreign investors. Inland areas must actively adapt to the migration of international manufacturing enterprises and coastal industries toward inland areas; inland areas must cultivate and develop a number of bases for international manufacturing and service contracting. We will drive ahead the "opening up" of Chongqing's "Liangjing New Area."

Section 3: Speeding up the "opening up" of border areas
In order to develop border areas, we will make use of these areas' regional advantages and formulate and implement special "opening up" policies. We will speed up the construction of key ports, border cities, border (and cross-border) economic cooperation zones and key development and experimental zones. We will enhance the infrastructure and connection with the neighbouring countries and develop "special outward industries" and industrial bases. Heilongjiang, Jilin, Liaoning and Inner Mongolia will be key in our "opening up" to North East Asia; Xinjiang will serve as a base for our "opening up" up the West; Guangxi will be a new "highland" for cooperation with ASEAN; Yunnan will be built into a bridge for

"opening up" to the South-West. We will also continuously improve the level of "opening up" along the coastal areas.

Chapter 51: Optimize foreign trade structure

China will continue the efforts to stabilize and expand foreign demand. We will speed up the transformation of foreign trade and promote the transformation of foreign trade development from volume-increasing to quality improving and profit increasing; we will compete with comprehensive advantages instead of cost advantages.

Section one: Nurturing a new competitive advantage for export

While maintaining the current advantage in export markets we will also speed up the nurturing of new advantages based on technology, branding, quality and service. We will improve the quality and class of labour-intensive export products, expand the export of electronic machinery and high-tech products, strictly limit the export of products that require wasteful use of energy and resources, and lead to high levels of pollution. We will optimize policy measures to promote the transition from processing trade to R&D, design, manufacturing of the key components and logistics etc, to extend the value-added chain in China. We will optimize the special supervisory policy and function of the Customs, to encourage the centralization of the processing trade into the Customs special supervisory area. We encourage enterprises to build up international sales channels to increase their ability to expand international market shares. We will actively develop emerging markets and promote the diversification of the export market.

Section 2: Improving the comprehensive effect of imports

We will optimize the structure of imports, actively expand imports of advanced technology, key components, domestically rare resources and energy-conservation and environmental protective products. We will expand the import of consumer goods to a reasonable degree and make use of the important macro-economic balancing and structure-adjusting role of imports and optimize the structure of trade payments. We will make full use of the attractiveness and influence of China's huge market and promote the diversity of import sources. We will optimize the controlling mechanism of the import and export for key agricultural products in order to use international resources effectively.

Section three: Vigorous development of trade in services

We will promote export of services, deepen the "opening up" of outbound service sectors and increase the share of service trade in the total foreign trade. While expanding and stabilizing the export of traditional service sectors such as tourism and transportation, we will also make great efforts to promote the export of culture, Chinese medicine, software and information services, logistics in business and trade, financial insurance, and other service sectors., we will steadily open up fields such as education, medicine, sports etc, to attract good resources, to improve the service standard to the international level. We will vigorously develop service outsourcing and establish several "service contracting bases". We will expand the "opening up" of financial, logistical and other service sectors, and in a stable way "open up" education,

medical care, sports and other areas. We will strive to improve the international level of our service sector.

Chapter 52: Coordinate 'Bring in' and 'Going Out'

China will continue the combination of the strategies 'bringing in' and 'going out' and to pay equal attention to both foreign investments in China and Chinese investments abroad in order to increase safe and effective use of the two markets and their resources.

Section one: increasing the level of foreign capital usage

China will optimise the structure of foreign capital by guiding foreign investments to the sectors of modern agriculture, high-end technology, advanced manufacturing, energy conservation, new energy, modern service industry etc. and encourage foreign capital to be invested in the middle and western parts of China. China will encourage foreign capital to use different means to take part in merger and acquisitions of domestic enterprises, such as buying shares, joint ventures etc. China will bring in senior talent and advanced technology from overseas and encourage foreign enterprises to set up R&D centres in China in order for China to learn advanced international management concepts and systems. China will actively integrate into the global innovation system. The soft environment of investments will be optimised and the legal rights of investors will be protected. China will conduct the National Security Review of foreign merger and acquisitions in a good fashion. Favourable foreign lending and international commercial lending will be used effectively to fine tune the management of foreign debt.

Section two: Speeding up the implementation of the 'Go out' strategy

China will follow the strategy of market orientation and self-willingness of enterprises to guide enterprises with different ownerships to develop overseas investment cooperation in an orderly manner. China will deepen the development of international energy resources and mutually beneficial processing cooperation. China will support the carrying out of technology R&D investments abroad and to encourage leading enterprises in the manufacturing industry to conduct foreign investment to create internationalised marketing and sales channels and famous brands. China will enlarge international cooperation in the agricultural sector and develop overseas engineering contracts, labour cooperation and cooperation projects that can improve living standards in local areas. China will gradually develop its own large cross country corporations and cross country financial institutions to increase China's level of international operations. China will conduct research for overseas investments and enhance scientific evaluation of investment projects. China will increase its ability of comprehensive all-round consideration, optimize the cross-agency coordination system, and enhance the guidance and services to enforce the 'going out' strategy. The formulation of laws and regulations concerning overseas investments will be speeded up and optimised. China will actively discuss and sign mutual agreements on investment protection and agreements to avoid double taxation as well as other multilateral or bilateral agreements. China's overseas investment promotional system will be improved to increase the level of investment facilitation for enterprises to invest overseas and to protect the overseas rights of China and to minimize different kinds of risks. The enterprises that are 'going out' and their

overseas cooperation projects should bear corporate social responsibility in mind in order to bring benefits to the local people.

Chapter 53: Actively participate in global economic governance and regional cooperation

China is to expand exchange and cooperation with developed countries to obtain an increase of mutual trust and a higher level of cooperation. In order to maintain peace and stability and to promote prosperity and development in the region friendly relationships and pragmatic cooperation with neighbouring countries will be deepened, as well as Unity and cooperation with developing countries will be enhanced and traditional friendship and common interests will be maintained. Multilateral cooperation will be developed actively.

China will push for a reform of the international economic system and promote the international economic order to develop in a more fair and reasonable direction. China will participate actively in the G20's global economic management cooperation in order to promote and build a balanced, commonly beneficial "win-win" situation of the multilateral trade system. China will work against all kinds of protectionism. Furthermore, China will actively promote a reform of the international financial system and to rationalize the international currency system. Coordination with the major economic bodies' macro economic policies will be strengthened. Finally, China will actively take part in the drafting and amending of the international regulations and standards to increase its influence in international economic and financial organizations.

China's strategies of formulating Free Trade Zones should be speeded up. To further enhance the economic relations between China and its major trading partners by deepening the pragmatic cooperation with both emerging market countries and developing countries. China should use the APEC as well as other international or sub-regional cooperation mechanisms and enhance regional cooperation with other countries and regions. South-South cooperation should be enhanced. The Chinese foreign aid structure should be optimized and the number of projects in the field of people's livelihood and welfare in the developing countries should be increased. Finally, economic and technology assistance to social public utilities, self-development capacity building and the other areas in developing countries should be increased.

The leadership of the party should be maintained by letting the people be the masters of the country and by maintaining unity by ruling the country by law. We will continue to develop socialist democratic rule and to build a socialist country with the rule of law.

**Part XIII: Develop democracy; promote the construction of socialism political civilization**

Adhere to the unity of the Party's leadership, people as masters of their own country, and governing the country by law; develop socialist democratic politics, and build a socialist country ruled by law.

Chapter 54: Develop socialism democratic politics

Speed up the construction of socialist political civilization. Stick to the lead of the party, with the people at its centre, organized in unison by a lawful state, advance the politics of socialist democracy, guarantee the people´s right to knowledge, to participation, to expression and supervision. Adhere and improve the representative system National People´s Congresses, the cooperation of leaders of the CPC with different parties and the system of political consultation, the self-governing system of minority areas and the self-governing system at the basis of society. Consolidate and expand the wide patriotic united front. Promote the unions, the communist youth league´s, the women´s federation and other civil organizations. To realize the work for minorities and religions, strengthen the united education of different ethnics.

Adhere to and improve the system of the people's congress, the multi-party cooperation and political consultation under the leadership of the CPC …
Continuously push forward the self-improvement and development of the socialist political system.
Improve the system of democracy, expand the channels of democracy, carry out democratic elections, democratic decision-making, democratic management and democratic supervision according to law, and safeguard the people's right to know, participate, express and supervise.
Support trade unions, Communist Youth League, women's federation and other people's organisations to undertake work according to law and their respective charters, and participate in social management and public services.
Fully implement the Party and the state's policy on ethnic minorities… and the Party's basic guidelines on religion. Encourage people from new social class to devote themselves to building socialism with Chinese characteristics. …


Chapter 55: Comprehensively promote the construction of legal system
Fully realize the vision of a lawfully governed state, optimize the legal system of the socialism with Chinese characteristics, protect the unity, dignity and authority of socialism legal system, just and incorruptible enforcement of the law, strengthen the education of the wide population of the law, create a good atmosphere in society of everyone studying and respecting the law, speed up the building of a socialist lawful state. Strengthen the guarantee of human rights, advance the overall development of human right matters.

… Improve the socialist legal system with Chinese characteristics. … Put emphasis on legislation relating to accelerating transformation of the economic growth mode, improving people's livelihood, developing social causes and government building. …
… Strengthen enforcement of the Constitution and law. … Advance governance by law and fair and clean enforcement. … Deepen judicial system reform. … Further promote publicity and education on law…
… Strengthen legal assistance; enhance protection of human rights; promote the comprehensive development of the human rights cause. …

Chapter 56: Strengthen efforts to promote clean government and combat corruption
Conscientiously implement the Code of Conduct for Building Clean and Honse Government, and implement the system whereby leading cadres regularly report their incomes, real estate and investments, as well as what their spouses and children do.

… Put emphasis on improving the system to punish and prevent corruption; strengthen anti-corruption and building a clean government. …
Strengthen honesty and self-discipline of officials; seriously implement the regular reporting system of officials' income, real estate property, investment as well as employment of their spouses and children.
Deepen reform and system innovation, and gradually establish an effective anti-corruption system that is scientific in content and rigorous in procedures.
Establish and improve a power structure and an operational mechanism featuring mutual restriction and coordination of powers for decision-making, enforcement and supervision; and vigorously push forward transparency of government affairs and audit of economic responsibilities.
Enhance international exchange and cooperation in anti-corruption.

## Part XIV: Deepen cooperation; construct the common homeland for Chinese nation

Chapter 57: Maintain Hong Kong and Macao's long term prosperity and stability
Continue to strictly adhere to the principles of "one country ,two systems", "Hong Kong people ruling Hong Kong", "Macao people governing Macao" and the policy of high political autonomy. Strictly follow the Special Administrative region´s basic law, fully support the political work of the Special Administrative Region´s leading officials and the Government according to law.

1. Support Hongkong and Macao consolidate and lift competitive advantages. Support Hongkong develop to the off-shore rmb business center and international asset management center, consolidate and lift its position as international finance, trade and shipping center, strengthen the global influences as financial center. Support Maco to build global tourism and leisure center.
2. Support Hongkong and Macao to foster emerging sectors.
3. Deepen the cooperation between inland and Hongkong/Macao. Implement the cooperation framework agreement between Guangdong/Kongkong and Guangdong/Macao, promote regional economic development, build advanced manufacturing and service sector base. Strengthen planning and coordination, improve the transportation system between pearl river delta and Hongkong/Macao.

Chapter 58: Promote the peaceful development of cross strait relations and reunification of motherland

Adhere to the principles of peaceful reunification and „one country, two systems" and in the current phase advance the cross-strait relations. Promote the 8-point proposal of peaceful reunification with the motherland, fully implement the 6-point proposal on the peaceful development of cross-strait relations. Firmly assure the issue of peaceful development of cross-strait relations, oppose separatist activities for an independent Taiwan. Comprehensive deepen cross-strait economic cooperation, strengthen the

cross-straits exchanges in areas of culture, education, tourism and others, actively expand cross-straits exchanges in all areas, advance the process of cross-strait exchange mechanisms, build a framework for the peaceful development of cross-strait relations.
1. Establish and improve the cross-strait economic cooperation mechanism
2. Comprehensively deepen cross-strait economic cooperation
3. Support the development of West Coast Economic Zone

## Part XV: Civil-military integration, strengthen the construction of national defense and army modernization

Chapter 59: Strengthen the construction of national defense and army modernization

Adhere to the military thoughts of Mao Zedong, the thoughts on building an army of the new era from Deng Xiaoping, follow the lead of Jiang Zemin´s thoughts on building National defense and the army, make technological development an important guiding principle in national defense and military, implement modern military strategies. Strengthen construction of a more revolutionized, modern and standardized army. Push forward military theory, military technology, military organizations, the innovation of military management.

Chapter 60: Promote the development of civil-military integration
Adhere to the roadmap of military and civilian integration, optimize the scientific development system for arms and weapons and the system of personnel training.

## Part XVI: Strengthen implementation, achieve the grand development blueprint

This Plan, upon deliberation and approval by the National People's Congress, bears legal validity.

Chapter 61: Improve the implementing and evaluation mechanism

1. Clear define responsibilities. The binding index and expecting index are the promises government made to the people. Major binding index should discompose and implement by various ministries and levels. Specific work responsibility and speed should be clear on how to promote the equalization of public services.
2. Strengthen policy balance and coordination.
3. Implement comprehensive evaluation and assessment system
4. Strengthen the supervision and assessment of the plan. A midterm evaluation report should be submitted to NPC for assessment.

To ensure smooth implementation of the Plan, mainly rely on market forces to play their basic role in allocating resources; government at all levels should correctly perform their duties to rationally allocate public resources, and ensure the objectives and tasks under the Plan can be met.

   1. Clearly define the responsibilities for implementation of the Plan

The indicators marked 'expected' and the tasks on industrial development and structural adjustment are to be achieved mainly by discretionary behaviour of market players. Government at all levels should create a sound policy, system and legal environment, break down market segmentation and industry monopoly, stimulate initiative and creativity of market players, steer the behaviour of market players towards national strategic objectives.

The indicators marked 'binding' and the tasks in the field of public services are the government's commitments to the people. The major binding indicators should be specifically assigned to the relevant departments and all provinces, autonomous regions and municipalities directly under the central government. The tasks on promoting equalisation of basic public services should be achieved mainly by utilisation of public resources by the government, with clearly defined work responsibilities and planned schedule.

2. Strengthen overall policy planning and coordination
… Optimise the structure of fiscal expenditure and government investment, steadily increase the central government's investment scale, with focus on people's livelihood and social causes, agriculture and rural areas, science technology and innovation, ecology and environmental protection and resources conservation, and with a bigger proportion devoted to the middle and western regions, former revolutionary base areas, areas inhabited by minority ethnic groups, remote and border areas and poverty-stricken areas.

3. Put into practice comprehensive evaluation and appraisal
Accelerate the development of a performance evaluation and appraisal system and specific appraisal methods that are conducive to advancing scientific development and accelerating transformation of the economic growth mode; weaken the evaluation and appraisal based on the speed of economic growth, while strengthen a comprehensive evaluation and appraisal on fulfilment of the objectives and tasks including structural optimisation, improvement of people's livelihood, resources conservation, environmental protection, basic public services and social management. Results of the appraisal will be used as importance basis for change of government leadership at various levels, as well as selection, recruitment, award and punishment of officials.

4. Strengthen monitoring and evaluation of the Plan
Improve the monitoring and evaluation system, enhance capacity building in this regard, strengthen statistics work concerning the service industry, energy-conservation and emission reduction, climate change, labour and employment, income distribution and real estate. Stress the surveillance and analysis on the progress with implementation of the Plan. The relevant departments of the State Council should strengthen evaluation on implementation of the Plan in their respective fields, and be subject to supervision and examination by the National People's Congress and its Standing Committee. The competent authority assuming responsibilities under the Plan should conduct evaluation on fulfilment of the binding and the key expected indicators, submit an annual progress report on implementation of the Plan to the State Council, and release information to the public in an appropriate manner. The State Council will organise a comprehensive mid-term review during implementation of the Plan,

and submit a mid-term evaluation report to the Standing Committee of the National People's Congress for examination. Should there be a need to make adjustments to the Plan, the State Council should submit an adjustment proposal to the Standing Committee of the National People's Congress for approval.

Chapter 62: Strengthen the coordinated management

… Improve an implementation mechanism featuring clear responsibilities, categorised implementation and effective supervision.

The relevant departments of the State Council should organise compilation of a set of national-level special plans, in particular key special plans, and specify and put into practice the key tasks set out in the Plan. …

The local plans should effectively implement the national strategic objectives, take into account the local realities and highlight the local characteristics. Make the local plans well coordinated with the development strategies, major objectives and key tasks set out in this Plan, with focus on strengthening their connections with the binding indicators.

Strengthen the connections between the annual plans and this Plan; annual goals should be set towards meeting the major objectives and fully reflect the development objectives and key tasks set out in the Plan. Annual reports should analyse the progress with implementation of this Plan, especially the fulfilment of binding indicators.

# 中华人民共和国国民经济和社会发展

# 第十二个五年规划纲要

　　中华人民共和国国民经济和社会发展第十二个五年（２０１１－２０１５年)规划纲要，根据《中共中央关于制定国民经济和社会发展第十二个五年规划的建议》编制，主要阐明国家战略意图，明确政府工作重点，引导市场主体行为，是未来五年我国经济社会发展的宏伟蓝图，是全国各族人民共同的行动纲领，是政府履行经济调节、市场监管、社会管理和公共服务职责的重要依据。

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# 正文

中华人民共和国国民经济和社会发展第十二个五年（２０１１－２０１５年）规划纲要，根据《中共中央关于制定国民经济和社会发展第十二个五年规划的建议》编制，主要阐明国家战略意图，明确政府工作重点，引导市场主体行为，是未来五年我国经济社会发展的宏伟蓝图，是全国各族人民共同的行动纲领，是政府履行经济调节、市场监管、社会管理和公共服务职责的重要依据。

# 第一篇　转变方式　开创科学发展新局面

"十二五"时期是全面建设小康社会的关键时期，是深化改革开放、加快转变经济发展方式的攻坚时期，必须深刻认识并准确把握国内外形势新变化新特点，继续抓住和用好重要战略机遇期，努力开创科学发展新局面。

## 第一章　发展环境

"十一五"时期是我国发展史上极不平凡的五年。面对国内外环境的复杂变化和重大风险挑战，党中央、国务院审时度势，团结带领全国各族人民，坚持发展这个党执政兴国的第一要务，贯彻落实党的理论和路线方针政策，实施正确而有力的宏观调控，充分发挥我国社会主义制度的政治优势，充分发挥市场在资源配置中的基础性作用，使国家面貌发生新的历史性变化。我们有效应对国际金融危机巨大冲击，保持了经济平稳较快发展良好态势，战胜了四川汶川特大地震、青海玉树强烈地震、甘肃舟曲特大山洪泥石流等重大自然灾害，成功举办了北京奥运会、上海世博会和广州亚运会，胜利完成了"十一五"规划确定的主要目标和任务。综合国力大幅提升，２０１０年国内生产总值达到３９．８万亿元，跃居世界第二位，国家财政收入达到８．３万亿元；载人航天、探月工程、超级计算机等尖端科技领域实现重大跨越。经济结构调整步伐加快，农业特别是粮食生产连年获得好收成，产业结构优化升级取得积极进展，节能减排和生态环境保护扎实推进，控制温室气体排放取得积极成效，各具特色的区域发展格局初步形成。人民生活明显改善，就业规模持续扩大，城乡居民收入增长是改革开放以来最快的时期之一，各级各类教育快速发展，社会保障体系逐步健全。体制改革有序推进，农村综合改革、医药卫生、财税金融、文化体制等改革取得新突破，发展

活力不断显现。对外开放迈上新台阶，进出口总额位居世界第二位，利用外资水平提升，境外投资明显加快，我国国际地位和影响力显著提高。社会主义经济建设、政治建设、文化建设、社会建设以及生态文明建设取得重大进展，谱写了中国特色社会主义事业新篇章。五年取得的成绩来之不易，积累的经验弥足珍贵，创造的精神财富影响深远。

专栏 1 "十一五"规划主要指标实现情况　新华社发

| 指标 | 2005 年 | 规划目标 | | 实现情况 | |
|---|---|---|---|---|---|
| | | 2010 年 | 年均增长(%) | 2010 年 | 年均增长(%) |
| 国内生产总值(万亿元) | 18.5 | | 7.5 | 39.8 | 11.2 |
| 人均国内生产总值(元) | 14185 | | 6.6 | 29748 | 10.6 |
| 服务业增加值比重(%) | 40.5 | | [3] | 43 | [2.5] |
| 服务业就业比重(%) | 31.3 | | [4] | 34.8 | [3.5] |
| 研究与试验发展经费支出占国内生产总值比重(%) | 1.3 | 2 | [0.7] | 1.75 | [0.45] |
| 城镇化率(%) | 43 | 47 | [4] | 47.5 | [4.5] |
| 全国总人口(万人) | 130756 | 136000 | <8‰ | 134100 | 5.1‰ |
| 单位国内生产总值能源消耗降低(%) | | | [20]左右 | | [19.1] |
| 单位工业增加值用水量降低(%) | | | [30] | | [36.7] |
| 农业灌溉用水有效利用系数 | 0.45 | 0.5 | [0.05] | 0.5 | [0.05] |
| 工业固体废物综合利用率(%) | 55.8 | 60 | [4.2] | 69 | [13.2] |
| 耕地保有量(亿公顷) | 1.22 | 1.2 | -0.3 | 1.212 | -0.13 |
| 主要污染物排放总量减少(%) 二氧化硫 | | | [10] | | [14.29] |
| 化学需氧量 | | | [10] | | [12.45] |
| 森林覆盖率(%) | 18.2 | 20 | [1.8] | 20.36 | [2.16] |
| 国民平均受教育年限(年) | 8.5 | 9 | [0.5] | 9 | [0.5] |
| 城镇基本养老保险覆盖人数(亿人) | 1.74 | 2.23 | 5.1 | 2.57 | 8.1 |
| 新型农村合作医疗覆盖率(%) | 23.5 | >80 | >[56.5] | 96.3 | [72.8] |
| 五年城镇新增就业(万人) | | | [4500] | | [5771] |
| 五年转移农业劳动力(万人) | | | [4500] | | [4500] |
| 城镇登记失业率(%) | 4.2 | 5 | | 4.1 | |
| 城镇居民人均可支配收入(元) | 10493 | | 5 | 19109 | 9.7 |
| 农村居民人均纯收入(元) | 3255 | | 5 | 5919 | 8.9 |

注：①国内生产总值和城乡居民收入绝对数按当年价格计算，增长速度按可比价格计算；②[ ]表示五年累计数。

"十二五"时期，世情国情继续发生深刻变化，我国经济社会发展呈现新的阶段性特征。综合判断国际国内形势，我国发展仍处于可以大有作为的重要战略机遇期，既面临难得的历史机遇，也面对诸多可以预见和难以预见的风险挑战。我们要增强机遇意识和忧患意识，主动适应环境变化，有效化解各种矛盾，更加奋发有为地推进我国改革开放和社会主义现代化建设。

从国际看，和平、发展、合作仍是时代潮流，世界多极化、经济全球化深入发展，世界

经济政治格局出现新变化,科技创新孕育新突破,国际环境总体上有利于我国和平发展。同时,国际金融危机影响深远,世界经济增长速度减缓,全球需求结构出现明显变化,围绕市场、资源、人才、技术、标准等的竞争更加激烈,气候变化以及能源资源安全、粮食安全等全球性问题更加突出,各种形式的保护主义抬头,我国发展的外部环境更趋复杂。我们必须坚持以更广阔的视野,冷静观察,沉着应对,统筹国内国际两个大局,把握好在全球经济分工中的新定位,积极创造参与国际经济合作和竞争新优势。

从国内看,工业化、信息化、城镇化、市场化、国际化深入发展,人均国民收入稳步增加,经济结构转型加快,市场需求潜力巨大,资金供给充裕,科技和教育整体水平提升,劳动力素质改善,基础设施日益完善,体制活力显著增强,政府宏观调控和应对复杂局面能力明显提高,社会大局保持稳定,我们完全有条件推动经济社会发展和综合国力再上新台阶。同时,必须清醒地看到,我国发展中不平衡、不协调、不可持续问题依然突出,主要是,经济增长的资源环境约束强化,投资和消费关系失衡,收入分配差距较大,科技创新能力不强,产业结构不合理,农业基础仍然薄弱,城乡区域发展不协调,就业总量压力和结构性矛盾并存,物价上涨压力加大,社会矛盾明显增多,制约科学发展的体制机制障碍依然较多。我们必须科学判断和准确把握发展趋势,充分利用各种有利条件,加快解决突出矛盾和问题,集中力量办好自己的事情。

## 第二章 指导思想

高举中国特色社会主义伟大旗帜,以邓小平理论和"三个代表"重要思想为指导,深入贯彻落实科学发展观,适应国内外形势新变化,顺应各族人民过上更好生活新期待,以科学发展为主题,以加快转变经济发展方式为主线,深化改革开放,保障和改善民生,巩固和扩大应对国际金融危机冲击成果,促进经济长期平稳较快发展和社会和谐稳定,为全面建成小康社会打下具有决定性意义的基础。

以科学发展为主题,是时代的要求,关系改革开放和现代化建设全局。我国仍处于并将长期处于社会主义初级阶段,发展仍是解决我国所有问题的关键。坚持发展是硬道理的本质要求,就是坚持科学发展。以加快转变经济发展方式为主线,是推动科学发展的必由之路,是我国经济社会领域的一场深刻变革,是综合性、系统性、战略性的转变,必须贯穿经济社会发展全过程和各领域,在发展中促转变,在转变中谋发展。今后五年,要确保科学发展取

得新的显著进步,确保转变经济发展方式取得实质性进展。基本要求是:

——坚持把经济结构战略性调整作为加快转变经济发展方式的主攻方向。构建扩大内需长效机制,促进经济增长向依靠消费、投资、出口协调拉动转变。加强农业基础地位,提升制造业核心竞争力,发展战略性新兴产业,加快发展服务业,促进经济增长向依靠第一、第二、第三产业协同带动转变。统筹城乡发展,积极稳妥推进城镇化,加快推进社会主义新农村建设,促进区域良性互动、协调发展。

——坚持把科技进步和创新作为加快转变经济发展方式的重要支撑。深入实施科教兴国战略和人才强国战略,充分发挥科技第一生产力和人才第一资源作用,提高教育现代化水平,增强自主创新能力,壮大创新人才队伍,推动发展向主要依靠科技进步、劳动者素质提高、管理创新转变,加快建设创新型国家。

——坚持把保障和改善民生作为加快转变经济发展方式的根本出发点和落脚点。完善保障和改善民生的制度安排,把促进就业放在经济社会发展优先位置,加快发展各项社会事业,推进基本公共服务均等化,加大收入分配调节力度,坚定不移走共同富裕道路,使发展成果惠及全体人民。

——坚持把建设资源节约型、环境友好型社会作为加快转变经济发展方式的重要着力点。深入贯彻节约资源和保护环境基本国策,节约能源,降低温室气体排放强度,发展循环经济,推广低碳技术,积极应对全球气候变化,促进经济社会发展与人口资源环境相协调,走可持续发展之路。

——坚持把改革开放作为加快转变经济发展方式的强大动力。坚定推进经济、政治、文化、社会等领域改革,加快构建有利于科学发展的体制机制。实施互利共赢的开放战略,与国际社会共同应对全球性挑战、共同分享发展机遇。

## 第三章 主要目标

按照与应对国际金融危机冲击重大部署紧密衔接、与到２０２０年实现全面建设小康社会奋斗目标紧密衔接的要求,综合考虑未来发展趋势和条件,今后五年经济社会发展的主要目标是:

——经济平稳较快发展。国内生产总值年均增长７％,城镇新增就业４５００万人,城

镇登记失业率控制在５％以内，价格总水平基本稳定，国际收支趋向基本平衡，经济增长质量和效益明显提高。

——结构调整取得重大进展。居民消费率上升。农业基础进一步巩固，工业结构继续优化，战略性新兴产业发展取得突破，服务业增加值占国内生产总值比重提高４个百分点。城镇化率提高４个百分点，城乡区域发展的协调性进一步增强。

——科技教育水平明显提升。九年义务教育质量显著提高，九年义务教育巩固率达到９３％，高中阶段教育毛入学率提高到８７％。研究与试验发展经费支出占国内生产总值比重达到２．２％，每万人口发明专利拥有量提高到３．３件。

——资源节约环境保护成效显著。耕地保有量保持在１８．１８亿亩。单位工业增加值用水量降低３０％，农业灌溉用水有效利用系数提高到０．５３。非化石能源占一次能源消费比重达到１１．４％。单位国内生产总值能源消耗降低１６％，单位国内生产总值二氧化碳排放降低１７％。主要污染物排放总量显著减少，化学需氧量、二氧化硫排放分别减少８％，氨氮、氮氧化物排放分别减少１０％。森林覆盖率提高到２１．６６％，森林蓄积量增加６亿立方米。

——人民生活持续改善。全国总人口控制在１３．９亿人以内。人均预期寿命提高１岁，达到７４．５岁。城镇居民人均可支配收入和农村居民人均纯收入分别年均增长７％以上。新型农村社会养老保险实现制度全覆盖，城镇参加基本养老保险人数达到３．５７亿人，城乡三项基本医疗保险参保率提高３个百分点。城镇保障性安居工程建设３６００万套。贫困人口显著减少。

——社会建设明显加强。覆盖城乡居民的基本公共服务体系逐步完善。全民族思想道德素质、科学文化素质和健康素质不断提高。社会主义民主法制更加健全，人民权益得到切实保障。文化事业加快发展，文化产业占国民经济比重明显提高。社会管理制度趋于完善，社会更加和谐稳定。

——改革开放不断深化。财税金融、要素价格、垄断行业等重要领域和关键环节改革取得明显进展，政府职能加快转变，政府公信力和行政效率进一步提高。对外开放广度和深度不断拓展，互利共赢开放格局进一步形成。

专栏２ "十二五"时期经济社会发展主要指标　新华社发

## 专栏2 "十二五"时期经济社会发展主要指标

| 指标 | | 2010年 | 2015年 | 年均增长(%) | 属性 |
|---|---|---|---|---|---|
| **经济发展** | | | | | |
| 国内生产总值(万亿元) | | 39.8 | 55.8 | 7 | 预期性 |
| 服务业增加值比重(%) | | 43 | 47 | [4] | 预期性 |
| 城镇化率(%) | | 47.5 | 51.5 | [4] | 预期性 |
| **科技教育** | | | | | |
| 九年义务教育巩固率(%) | | 89.7 | 93 | [3.3] | 约束性 |
| 高中阶段教育毛入学率(%) | | 82.5 | 87 | [4.5] | 预期性 |
| 研究与试验发展经费支出占国内生产总值比重(%) | | 1.75 | 2.2 | [0.45] | 预期性 |
| 每万人口发明专利拥有量(件) | | 1.7 | 3.3 | [1.6] | 预期性 |
| **资源环境** | | | | | |
| 耕地保有量(亿亩) | | 18.18 | 18.18 | [0] | 约束性 |
| 单位工业增加值用水量降低(%) | | | | [30] | 约束性 |
| 农业灌溉用水有效利用系数 | | 0.5 | 0.53 | [0.03] | 预期性 |
| 非化石能源占一次能源消费比重(%) | | 8.3 | 11.4 | [3.1] | 约束性 |
| 单位国内生产总值能源消耗降低(%) | | | | [16] | 约束性 |
| 单位国内生产总值二氧化碳排放降低(%) | | | | [17] | 约束性 |
| 主要污染物排放总量减少(%) | 化学需氧量 | | | [8] | 约束性 |
| | 二氧化硫 | | | [8] | |
| | 氨氮 | | | [10] | |
| | 氮氧化物 | | | [10] | |
| 森林增长 | 森林覆盖率(%) | 20.36 | 21.66 | [1.3] | 约束性 |
| | 森林蓄积量(亿立方米) | 137 | 143 | [6] | |
| **人民生活** | | | | | |
| 城镇居民人均可支配收入(元) | | 19109 | >26810 | >7 | 预期性 |
| 农村居民人均纯收入(元) | | 5919 | >8310 | >7 | 预期性 |
| 城镇登记失业率(%) | | 4.1 | <5 | | 预期性 |
| 城镇新增就业人数(万人) | | | | [4500] | 预期性 |
| 城镇参加基本养老保险人数(亿人) | | 2.57 | 3.57 | [1] | 约束性 |
| 城乡三项基本医疗保险参保率(%) | | | | [3] | 约束性 |
| 城镇保障性安居工程建设(万套) | | | | [3600] | 约束性 |
| 全国总人口(万人) | | 134100 | <139000 | <7.2‰ | 约束性 |
| 人均预期寿命(岁) | | 73.5 | 74.5 | [1] | 预期性 |

注:①国内生产总值和城乡居民收入绝对数按2010年价格计算,增长速度按可比价格计算;②[]内为五年累计数;③城乡三项基本医疗保险参保率指年末参加城镇职工基本医疗保险、城镇居民基本医疗保险和新型农村合作医疗的总人数与年末全国总人口之比;④城乡居民收入增长按照不低于国内生产总值增长预期目标确定,在实施中要努力实现和经济发展同步。

## 第四章 政策导向

实现经济社会发展目标,必须紧紧围绕推动科学发展、加快转变经济发展方式,统筹兼顾,改革创新,着力解决经济社会发展中不平衡、不协调、不可持续的问题,明确重大政策

导向:

——加强和改善宏观调控。巩固和扩大应对国际金融危机冲击成果,把短期调控政策和长期发展政策有机结合起来,加强财政、货币、投资、产业、土地等各项政策协调配合,提高宏观调控的科学性和预见性,增强针对性和灵活性,合理调控经济增长速度,更加积极稳妥地处理好保持经济平稳较快发展、调整经济结构、管理通胀预期的关系,实现经济增长速度和结构质量效益相统一。

——建立扩大消费需求的长效机制。把扩大消费需求作为扩大内需的战略重点,通过积极稳妥推进城镇化、实施就业优先战略、深化收入分配制度改革、健全社会保障体系和营造良好的消费环境,增强居民消费能力,改善居民消费预期,促进消费结构升级,进一步释放城乡居民消费潜力,逐步使我国国内市场总体规模位居世界前列。

——调整优化投资结构。发挥投资对扩大内需的重要作用,保持投资合理增长,完善投资体制机制,明确界定政府投资范围,规范国有企业投资行为,鼓励扩大民间投资,有效遏制盲目扩张和重复建设,促进投资消费良性互动,把扩大投资和增加就业、改善民生有机结合起来,创造最终需求。

——同步推进工业化、城镇化和农业现代化。坚持工业反哺农业、城市支持农村和多予少取放活方针,充分发挥工业化、城镇化对发展现代农业、促进农民增收、加强农村基础设施和公共服务的辐射带动作用,夯实农业农村发展基础,加快现代农业发展步伐。

——依靠科技创新推动产业升级。面向国内国际两个市场,发挥科技创新对产业结构优化升级的驱动作用,加快国家创新体系建设,强化企业在技术创新中的主体地位,引导资金、人才、技术等创新资源向企业聚集,推进产学研战略联盟,提升产业核心竞争力,推动三次产业在更高水平上协同发展。

——促进区域协调互动发展。实施区域发展总体战略和主体功能区战略,把实施西部大开发战略放在区域发展总体战略优先位置,充分发挥各地区比较优势,促进区域间生产要素合理流动和产业有序转移,在中西部地区培育新的区域经济增长极,增强区域发展的协调性。

——健全节能减排激励约束机制。优化能源结构,合理控制能源消费总量,完善资源性产品价格形成机制和资源环境税费制度,健全节能减排法律法规和标准,强化节能减排目标责任考核,把资源节约和环境保护贯穿于生产、流通、消费、建设各领域各环节,提升可持

续发展能力。

——推进基本公共服务均等化。把基本公共服务制度作为公共产品向全民提供，完善公共财政制度，提高政府保障能力，建立健全符合国情、比较完整、覆盖城乡、可持续的基本公共服务体系，逐步缩小城乡区域间人民生活水平和公共服务差距。

——加快城乡居民收入增长。健全初次分配和再分配调节体系，合理调整国家、企业、个人分配关系，努力实现居民收入增长和经济发展同步、劳动报酬增长和劳动生产率提高同步，明显增加低收入者收入，持续扩大中等收入群体，努力扭转城乡、区域、行业和社会成员之间收入差距扩大趋势。

——加强和创新社会管理。提高社会管理能力，创新社会管理体制机制，加快服务型政府建设，在服务中实施管理，在管理中体现服务，着力解决影响社会和谐稳定的源头性、基础性、根本性问题，保持社会安定有序和充满活力。

# 第二篇 强农惠农 加快社会主义新农村建设

在工业化、城镇化深入发展中同步推进农业现代化，完善以工促农、以城带乡长效机制，加大强农惠农力度，提高农业现代化水平和农民生活水平，建设农民幸福生活的美好家园。

## 第五章 加快发展现代农业

坚持走中国特色农业现代化道路，把保障国家粮食安全作为首要目标，加快转变农业发展方式，提高农业综合生产能力、抗风险能力和市场竞争能力。

### 第一节 增强粮食安全保障能力

稳定粮食播种面积、优化品种结构、提高单产和品质，广泛开展高产创建活动，粮食综合生产能力达到５．４亿吨以上。实施全国新增千亿斤粮食生产能力规划，加大粮食主产区投入和利益补偿，将粮食生产核心区和非主产区产粮大县建设成为高产稳产商品粮生产基地。严格保护耕地，加快农村土地整理复垦。加强以农田水利设施为基础的田间工程建设，改造中低产田，大规模建设旱涝保收高标准农田。加强粮食物流、储备和应急保障能力建设。

### 第二节 推进农业结构战略性调整

完善现代农业产业体系，发展高产、优质、高效、生态、安全农业。优化农业产业布局，加快构建以东北平原、黄淮海平原、长江流域、汾渭平原、河套灌区、华南和甘肃新疆等的农产品主产区为主体，其他农业地区为重要组成的"七区二十三带"农业战略格局。鼓励和支持优势产区集中发展粮食、棉花、油料、糖料等大宗农产品。加快发展设施农业，推进蔬菜、水果、茶叶、花卉等园艺作物标准化生产。提升畜牧业发展水平，提高畜牧业产值比重。促进水产健康养殖，发展远洋捕捞。积极发展林业产业。推进农业产业化经营，扶持壮大农产品加工业和流通业，促进农业生产经营专业化、标准化、规模化、集约化。推进现代农业示范区建设。

### 第三节 加快农业科技创新

推进农业技术集成化、劳动过程机械化、生产经营信息化。加快农业生物育种创新和推广应用，开发具有重要应用价值和自主知识产权的生物新品种，做大做强现代种业。加强高效栽培、疫病防控、农业节水等领域的科技集成创新和推广应用，实施水稻、小麦、玉米等主要农作物病虫害专业化统防统治。加快推进农业机械化，促进农机农艺融合，耕种收综合机械化水平达到６０％左右。发展农业信息技术，提高农业生产经营信息化水平。

### 第四节 健全农业社会化服务体系

加强农业公共服务能力建设，加快健全乡镇或区域性农业技术推广、动植物疫病防控、农产品质量监管等公共服务机构。培育多元化的农业社会化服务组织，支持农民专业合作组织、供销合作社、农民经纪人、龙头企业等提供多种形式的生产经营服务。积极发展农产品流通服务，加快建设流通成本低、运行效率高的农产品营销网络。

图1 "七区二十三带"农业战略格局 新华社发

图1 "七区二十三带"农业战略格局
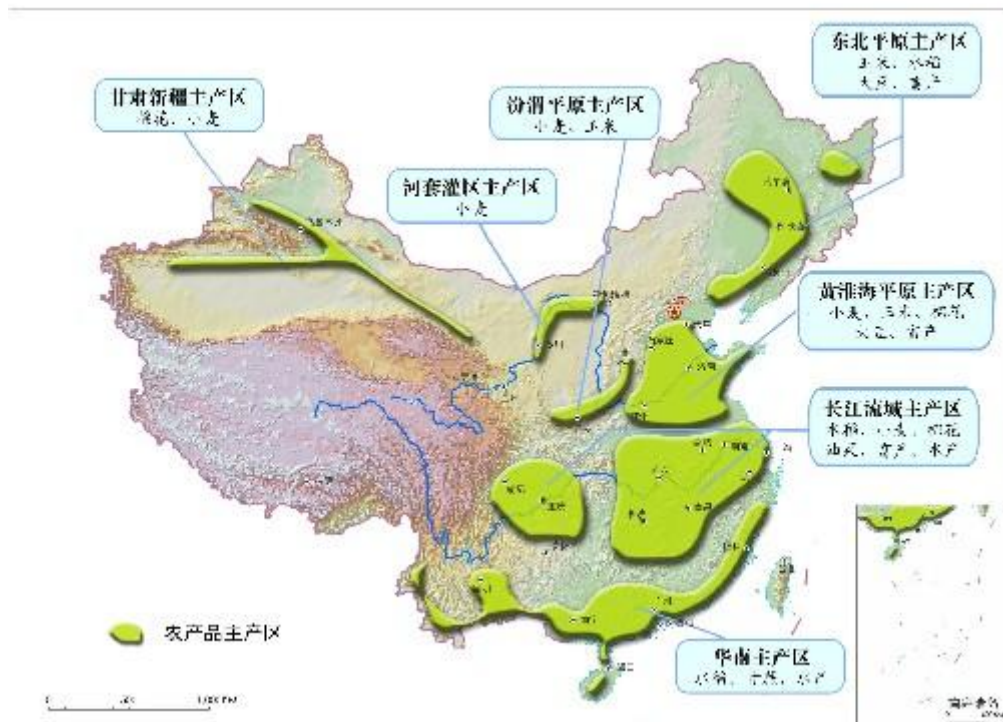
# 第六章 拓宽农民增收渠道

加大引导和扶持力度，提高农民职业技能和创收能力，千方百计拓宽农民增收渠道，促进农民收入持续较快增长。

## 第一节 巩固提高家庭经营收入

健全农产品价格保护制度，稳步提高重点粮食品种最低收购价，完善大宗农产品临时收储政策。鼓励农民优化种养结构，提高生产经营水平和经济效益。通过发展农业产业化和新型农村合作组织，使农民合理分享农产品加工、流通增值收益。因地制宜发展特色高效农业，利用农业景观资源发展观光、休闲、旅游等农村服务业，使农民在农业功能拓展中获得更多收益。

## 第二节 努力增加工资性收入

加强农民技能培训和就业信息服务，开展劳务输出对接，引导农村富余劳动力平稳有序外出务工。促进城乡劳动者平等就业，努力实现农民工与城镇就业人员同工同酬，提高农民工工资水平。增加县域非农就业机会，促进农民就地就近转移就业，扶持农民以创业带动就业。结合新农村建设，扩大以工代赈规模，增加农民劳务收入。

### 第三节 大力增加转移性收入

健全农业补贴制度，坚持对种粮农民实行直接补贴，继续实行良种补贴和农机具购置补贴，完善农资综合补贴动态调整机制。增加新型农村社会养老保险基础养老金，提高新型农村合作医疗补助标准和报销水平，提高农村最低生活保障水平。积极发展政策性农业保险，增加农业保险费补贴品种并扩大覆盖范围。加大扶贫投入，逐步提高扶贫标准。

## 第七章 改善农村生产生活条件

按照推进城乡经济社会发展一体化的要求，搞好社会主义新农村建设规划，加强农村基础设施建设和公共服务，推进农村环境综合整治。

### 第一节 提高乡镇村庄规划管理水平

适应农村人口转移的新形势，坚持因地制宜，尊重村民意愿，突出地域和农村特色，保护特色文化风貌，科学编制乡镇村庄规划。合理引导农村住宅和居民点建设，向农民免费提供经济安全适用、节地节能节材的住宅设计图样。合理安排县域乡镇建设、农田保护、产业聚集、村落分布、生态涵养等空间布局，统筹农村生产生活基础设施、服务设施和公益事业建设。

### 第二节 加强农村基础设施建设

全面加强农田水利建设，完善建设和管护机制，加快大中型灌区、灌排泵站配套改造，在水土资源丰富地区适时新建一批灌区，搞好抗旱水源工程建设，推进小型农田水利重点县建设，完善农村小微型水利设施。加强农村饮水安全工程建设，大力推进农村集中式供水。继续推进农村公路建设，进一步提高通达通畅率和管理养护水平，加大道路危桥改造力度。加强农村能源建设，继续加强水电新农村电气化县和小水电代燃料工程建设，实施新一轮农村电网升级改造工程，大力发展沼气、作物秸秆及林业废弃物利用等生物质能和风能、太阳能，加强省柴节煤炉灶炕改造。全面推进农村危房改造和国有林区（场）、棚户区、垦区危房改造，实施游牧民定居工程。加强农村邮政设施建设。推进农村信息基础设施建设。

### 第三节 强化农村公共服务

扩大公共财政覆盖农村范围，全面提高财政保障农村公共服务水平。提高农村义务教育质量和均衡发展水平，推进农村中等职业教育免费进程，积极发展农村学前教育。建立健全

农村医疗卫生服务网络,向农民提供安全价廉可及的基本医疗服务。完善农村社会保障体系,逐步提高保障标准。加强农村公共文化和体育设施建设,丰富农民精神文化生活。

### 第四节 推进农村环境综合整治

治理农药、化肥和农膜等面源污染,全面推进畜禽养殖污染防治。加强农村饮用水水源地保护、农村河道综合整治和水污染综合治理。强化土壤污染防治监督管理。实施农村清洁工程,加快推动农村垃圾集中处理,开展农村环境集中连片整治。严格禁止城市和工业污染向农村扩散。

## 第八章 完善农村发展体制机制

按照统筹城乡发展要求,加快推进农村发展体制机制改革,增强农业农村发展活力。

### 第一节 坚持和完善农村基本经营制度

坚持以家庭承包经营为基础、统分结合的双层经营体制。完善农村土地法律法规和相关政策,现有农村土地承包关系保持稳定并长久不变。搞好农村土地确权、登记、颁证工作,完善土地承包经营权权能,依法保障农民对承包土地的占有、使用、收益等权利。在依法自愿有偿和加强服务基础上完善土地承包经营权流转市场,发展多种形式的适度规模经营。深化农村综合改革,推进集体林权和国有林区林权制度改革,完善草原承包经营制度,加快农垦体制改革。

### 第二节 建立健全城乡发展一体化制度

加快消除制约城乡协调发展的体制性障碍,促进公共资源在城乡之间均衡配置、生产要素在城乡之间自由流动。统筹城乡发展规划,促进城乡基础设施、公共服务、社会管理一体化。完善城乡平等的要素交换关系,促进土地增值收益和农村存款主要用于农业农村。严格规范城乡建设用地增减挂钩,调整优化城乡用地结构和布局,逐步建立城乡统一的建设用地市场。严格界定公益性和经营性建设用地,改革征地制度,缩小征地范围,提高征地补偿标准。完善农村集体经营性建设用地流转和宅基地管理机制。加快建立城乡统一的人力资源市场,形成城乡劳动者平等就业制度。加大国家财政支出和预算内固定资产投资向农业农村倾斜力度。深化农村信用社改革,鼓励有条件的地区以县为单位建立社区银行,发展农村小型金融组织和小额信贷,扩大农村有效担保物范围。认真总结统筹城乡综合配套改革试点经验,

积极探索解决农业、农村、农民问题新途径。

### 第三节 增强县域经济发展活力

扩大县域发展自主权，稳步推进扩权强县改革试点。建立健全县级基本财力保障制度，增加对县级财政的一般性转移支付，逐步提高县级财政在省以下财力分配中的比重。依法赋予经济发展快、人口吸纳能力强的小城镇在投资审批、工商管理、社会治安等方面的行政管理权限。发挥县域资源优势和比较优势，科学规划产业发展方向，支持劳动密集型产业、农产品加工业向县城和中心镇集聚，推动形成城乡分工合理的产业发展格局。

专栏 3 新农村建设重点工程 新华社发

## 专栏3　新农村建设重点工程

**01　现代种业工程**

建设国家级制种基地、区域性良繁基地以及畜禽水产品种资源场、良种场，建设国家重点保护农业野生植物、水生生物自然保护区和水产种质资源保护区。

**02　旱涝保收高标准农田建设工程**

改造中低产田，更新提质现有高产田，开展土地平整、土壤改良、畦垄规格化整治，加强田间灌排设施、机耕道路及桥涵、积肥设施、农田林网等建设。

**03　"菜篮子"建设工程**

改造一批标准化园艺产品生产基地、规模化畜禽养殖场（小区）和水产健康养殖示范场，建设一批国家级重点大型批发市场和区域性批发市场。

**04　渔政渔港建设工程**

改扩建或新建一批沿海中心渔港、一级渔港、二级渔港、避风锚地和内陆重点渔港，建立健全国家级、海区级和省级渔政基地，购置一批渔政执法设施。

**05　动植物保护工程**

建设六级动物疫病防控体系，重点加强基层动物防疫体系建设；建设农作物病虫害防控体系，改善农作物病虫害防控设施条件。

**06　农村饮水安全工程**

采取集中供水、分散供水和城镇供水管网向农村延伸等方式，全面解决约 3 亿农村居民安全饮水问题。

**07　农村公路工程**

新建和改造农村公路 100 万公里，实现所有具备条件的东中部地区行政村、西部地区 80%以上的行政村通沥青（水泥）路。

**08　农村供电工程**

对未改造的农村电网进行全面改造，对电力需求快速增长而出现供电能力不足的农村电网实施升级改造。建成 1000 个太阳能示范村和 200 个绿色能源县。建设 300 个水电新农村电气化县和新增小水电装机容量 1000 万千瓦。

**09　农村沼气工程**

建设户用沼气、小型沼气工程、大中型沼气工程和沼气服务体系，使 50%以上的适宜农户用上沼气。

**10　农村安居工程**

完成农村困难家庭危房改造 800 万户。基本解决国有垦区、林区、林场职工住房困难问题。基本实现全国游牧民定居目标。

**11　农村清洁工程**

推进农村有机废弃物处理利用和无机废弃物收集转运，配套开展村庄硬化绿化。

**12　农村土地整治工程**

实施农村土地整理复垦重点建设项目，补充耕地2000万亩。

# 第三篇 转型升级 提高产业核心竞争力

坚持走中国特色新型工业化道路，适应市场需求变化，根据科技进步新趋势，发挥我国产业在全球经济中的比较优势，发展结构优化、技术先进、清洁安全、附加值高、吸纳就业能力强的现代产业体系。

## 第九章 改造提升制造业

优化结构、改善品种质量、增强产业配套能力、淘汰落后产能，发展先进装备制造业，调整优化原材料工业，改造提升消费品工业，促进制造业由大变强。

### 第一节 推进重点产业结构调整

装备制造行业要提高基础工艺、基础材料、基础元器件研发和系统集成水平，加强重大技术成套装备研发和产业化，推动装备产品智能化。船舶行业要适应国际造船新标准，建立现代造船模式，发展高技术高附加值船舶和配套设备。汽车行业要强化整车研发能力，实现关键零部件技术自主化，提高节能、环保和安全技术水平。冶金和建材行业要立足国内需求，严格控制总量扩张，优化品种结构，在产品研发、资源综合利用和节能减排等方面取得新进展。石化行业要积极探索原料多元化发展新途径，重点发展高端石化产品，加快化肥原料调整，推动油品质量升级。轻纺行业要强化环保和质量安全，加强企业品牌建设，提升工艺技术装备水平。包装行业要加快发展先进包装装备、包装新材料和高端包装制品。电子信息行业要提高研发水平，增强基础电子自主发展能力，引导向产业链高端延伸。建筑业要推广绿色建筑、绿色施工，着力用先进建造、材料、信息技术优化结构和服务模式。加大淘汰落后产能力度，压缩和疏导过剩产能。

### 第二节 优化产业布局

按照区域主体功能定位，综合考虑能源资源、环境容量、市场空间等因素，优化重点产业生产力布局。主要依托国内能源和矿产资源的重大项目，优先在中西部资源地布局；主要利用进口资源的重大项目，优先在沿海沿边地区布局。有序推进城市钢铁、有色、化工企业环保搬迁。优化原油加工能力布局，促进上下游一体化发展。引导生产要素集聚，依托国家重点工程，打造一批具有国际竞争能力的先进制造业基地。以产业链条为纽带，以产业园区为载体，发展一批专业特色鲜明、品牌形象突出、服务平台完备的现代产业集群。

### 第三节 加强企业技术改造

制定支持企业技术改造的政策,加快应用新技术、新材料、新工艺、新装备改造提升传统产业,提高市场竞争能力。支持企业提高装备水平、优化生产流程,加快淘汰落后工艺技术和设备,提高能源资源综合利用水平。鼓励企业增强新产品开发能力,提高产品技术含量和附加值,加快产品升级换代。推动研发设计、生产流通、企业管理等环节信息化改造升级,推行先进质量管理,促进企业管理创新。推动一批产业技术创新服务平台建设。

### 第四节 引导企业兼并重组

坚持市场化运作,发挥企业主体作用,完善配套政策,消除制度障碍,以汽车、钢铁、水泥、机械制造、电解铝、稀土、电子信息、医药等行业为重点,推动优势企业实施强强联合、跨地区兼并重组,提高产业集中度。推动自主品牌建设,提升品牌价值和效应,加快发展拥有国际知名品牌和核心竞争力的大型企业。

### 第五节 促进中小企业发展

大力发展中小企业,完善中小企业政策法规体系。促进中小企业加快转变发展方式,强化质量诚信建设,提高产品质量和竞争能力。推动中小企业调整结构,提升专业化分工协作水平。引导中小企业集群发展,提高创新能力和管理水平。创造良好环境,激发中小企业发展活力。建立健全中小企业金融服务和信用担保体系,提高中小企业贷款规模和比重,拓宽直接融资渠道。落实和完善税收等优惠政策,减轻中小企业社会负担。

专栏4 制造业发展重点方向 新华社发

## 专栏4 制造业发展重点方向

**01 装备制造**

推动装备制造由生产型制造向服务型制造转变,推进产品数控化、生产绿色化和企业信息化。发展战略性新兴产业及基础设施等重点领域所需装备。推进铸造、锻造、焊接、热处理、表面处理等基础工艺专业化生产,提升轴承、齿轮、模具、液压、自控等基础零部件水平。

**02 船舶**

按照国际造船新规范,推进散货船、油船、集装箱船三大主流船型升级换代。提高船舶配套业和装船率水平。重点发展大型液化天然气(LNG)船、大型液化石油气(LPG)船、远洋渔船、豪华游轮等高技术高附加值船舶。加快海洋移动钻井平台、浮式生产系统、海洋工程作业船和辅助船及关键配套设备、系统自主设计制造。

**03 汽车**

建设原理创新、产品创新和产业化创新体系。重点突破动力电池、驱动电机等关键零部件及动力总成管理控制系统。推广高效内燃机、高效传动与驱动、材料与结构轻量化、整车优化、普通混合动力技术,推动汽车产品节能。

**04 钢铁**

重点发展高速铁路用钢、高牌号无取向硅钢、高磁感取向硅钢、高强度机械用钢等关键钢材品种。支持非高炉炼铁、洁净钢生产、资源综合利用等技术开发。重点推广能源管控系统技术和高温高压干熄焦、余热综合利用、烧结烟气脱硫等节能减排技术。加快原料基地建设。

**05 有色金属**

重点发展航空航天、电子信息等领域所需关键材料。支持冶炼前沿技术及短流程、连续化工艺技术和节能减排技术推广应用,鼓励再生资源循环利用和低品位矿、共伴生矿、难选冶矿、尾矿和废渣资源综合利用。

**06 建材**

重点发展光伏玻璃、超薄基板玻璃、特种玻纤、特种陶瓷等新材料。支持水泥窑协同处置城市生活垃圾、污泥生产线和建筑废弃物综合利用示范线的建设。大力发展符合绿色建筑要求的新型建材及制品。

**07 石化**

建设大型炼化一体化基地。开展煤电化一体化、二氧化碳利用、汞污染治理工程示范。油品质量达到国Ⅳ标准。烯烃原料多元化率达到 20%。淘汰一批高毒高残留农药。

**08 轻工**

推进新型电池、农用新型塑料、节能环保电光源和智能化家电等关键技术的产业化。加快重点行业装备自主化。继续推进林纸一体化工程建设。支持食品精深加工,加强食品安全检测能力建设,健全食品企业质量诚信体系。

**09 纺织**

推进高新技术纤维和新一代功能性、差别化纤维的产业化及应用。加快发展产业用纺织品。推动高端纺机和配件自主化。支持废旧纺织品循环利用。

## 第十章 培育发展战略性新兴产业

以重大技术突破和重大发展需求为基础,促进新兴科技与新兴产业深度融合,在继续做强做大高技术产业基础上,把战略性新兴产业培育发展成为先导性、支柱性产业。

### 第一节 推动重点领域跨越发展

大力发展节能环保、新一代信息技术、生物、高端装备制造、新能源、新材料、新能源汽车等战略性新兴产业。节能环保产业重点发展高效节能、先进环保、资源循环利用关键技术装备、产品和服务。新一代信息技术产业重点发展新一代移动通信、下一代互联网、三网融合、物联网、云计算、集成电路、新型显示、高端软件、高端服务器和信息服务。生物产业重点发展生物医药、生物医学工程产品、生物农业、生物制造。高端装备制造产业重点发展航空装备、卫星及应用、轨道交通装备、智能制造装备。新能源产业重点发展新一代核能、太阳能热利用和光伏光热发电、风电技术装备、智能电网、生物质能。新材料产业重点发展新型功能材料、先进结构材料、高性能纤维及其复合材料、共性基础材料。新能源汽车产业重点发展插电式混合动力汽车、纯电动汽车和燃料电池汽车技术。战略性新兴产业增加值占国内生产总值比重达到 8％左右。

### 第二节 实施产业创新发展工程

以掌握产业核心关键技术、加速产业规模化发展为目标,发挥国家重大科技专项引领支撑作用,依托优势企业、产业集聚区和重大项目,统筹技术开发、工程化、标准制定、应用示范等环节,支持商业模式创新和市场拓展,组织实施若干重大产业创新发展工程,培育一批战略性新兴产业骨干企业和示范基地。

专栏 5　战略性新兴产业创新发展工程 新华社发

专栏5  战略性新兴产业创新发展工程

01  **节能环保产业**

实施节能环保重大示范工程，推进高效节能、先进环保和资源循环利用产业化。

02  **新一代信息技术产业**

建设新一代移动通信网、下一代互联网和数字广播电视网，建设物联网应用示范工程，实施网络产品产业化专项，建设集成电路、平板显示、软件和信息服务等产业基地。

03  **生物产业**

建设医药、重要动植物、工业微生物菌种等基因资源信息库，建设生物药物和生物医学工程产品研发与产业化基地，建设生物育种研发、试验、检测及良种繁育基地，建设生物制造应用示范平台。

04  **高端装备制造产业**

建设新型国产干支线飞机、通用飞机、直升机产业化平台，建设导航、遥感、通信等卫星组成的空间基础设施框架，发展智能控制系统、高档数控机床、高速列车及城市轨道交通装备等。

05  **新能源产业**

建设新一代核电装备、大型风力发电机组及零部件、高效太阳能发电和热利用新组件、生物质能转换利用技术和智能电网装备等产业基地，实施海上风电、太阳能发电和生物质能规模化应用示范工程。

06  **新材料产业**

推进航空航天、能源资源、交通运输、重大装备等领域急需的碳纤维、半导体材料、高温合金材料、超导材料、高性能稀土材料、纳米材料等研发及产业化。

07  **新能源汽车产业**

开展插电式混合动力汽车、纯电动汽车研发及大规模商业化示范工程，推进产业化应用。

### 第三节  加强政策支持和引导

设立战略性新兴产业发展专项资金和产业投资基金，扩大政府新兴产业创业投资规模，发挥多层次资本市场融资功能，带动社会资金投向处于创业早中期阶段的创新型企业。综合运用风险补偿等财政优惠政策，鼓励金融机构加大信贷支持力度。完善鼓励创新、引导投资和消费的税收支持政策。加快建立有利于战略性新兴产业发展的行业标准和重要产品技术标准体系。支持新产品应用的配套基础设施建设，为培育和拓展市场需求创造良好环境。

## 第十一章  推动能源生产和利用方式变革

坚持节约优先、立足国内、多元发展、保护环境，加强国际互利合作，调整优化能源结

构，构建安全、稳定、经济、清洁的现代能源产业体系。

## 第一节 推进能源多元清洁发展

发展安全高效煤矿，推进煤炭资源整合和煤矿企业兼并重组，发展大型煤炭企业集团。有序开展煤制天然气、煤制液体燃料和煤基多联产研发示范，稳步推进产业化发展。加大石油、天然气资源勘探开发力度，稳定国内石油产量，促进天然气产量快速增长，推进煤层气、页岩气等非常规油气资源开发利用。发展清洁高效、大容量燃煤机组，优先发展大中城市、工业园区热电联产机组，以及大型坑口燃煤电站和煤矸石等综合利用电站。在做好生态保护和移民安置的前提下积极发展水电，重点推进西南地区大型水电站建设，因地制宜开发中小河流水能资源，科学规划建设抽水蓄能电站。在确保安全的基础上高效发展核电。加强并网配套工程建设，有效发展风电。积极发展太阳能、生物质能、地热能等其他新能源。促进分布式能源系统的推广应用。

## 第二节 优化能源开发布局

统筹规划全国能源开发布局和建设重点，建设山西、鄂尔多斯盆地、内蒙古东部地区、西南地区和新疆五大国家综合能源基地，重点在东部沿海和中部部分地区发展核电。提高能源就地加工转化水平，减少一次能源大规模长距离输送压力。合理规划建设能源储备设施，完善石油储备体系，加强天然气和煤炭储备与调峰应急能力建设。

## 第三节 加强能源输送通道建设

加快西北、东北、西南和海上进口油气战略通道建设，完善国内油气主干管网。统筹天然气进口管道、液化天然气接收站、跨区域骨干输气网和配气管网建设，初步形成天然气、煤层气、煤制气协调发展的供气格局。适应大规模跨区输电和新能源发电并网的要求，加快现代电网体系建设，进一步扩大西电东送规模，完善区域主干电网，发展特高压等大容量、高效率、远距离先进输电技术，依托信息、控制和储能等先进技术，推进智能电网建设，切实加强城乡电网建设与改造，增强电网优化配置电力能力和供电可靠性。

专栏6 能源建设重点 新华社发

专栏6 能源建设重点

01 **煤炭开发与转化**
加快陕北、黄陇、神东、蒙东、宁东煤炭基地建设，稳步推进晋北、晋中、晋东、云贵煤炭基地建设，启动新疆煤炭基地建设。依托以上煤炭基地建设若干大型煤电基地。

02 **稳油增气**
推进形成塔里木和准噶尔盆地、松辽盆地、鄂尔多斯盆地、渤海湾盆地、四川盆地5个油气规模生产区，加快近海海域和深水油气田勘探开发。加大煤炭矿区煤层气抽采利用。适当增加炼油能力。

03 **核电**
加快沿海省份核电发展，稳步推进中部省份核电建设，开工建设核电4000万千瓦。

04 **可再生能源**
建设金沙江、雅砻江、大渡河等重点流域的大型水电站，开工建设水电1.2亿千瓦。建设6个陆上和2个沿海及海上大型风电基地，新建装机7000万千瓦以上。以西藏、内蒙古、甘肃、宁夏、青海、新疆、云南等省区为重点，建成太阳能电站500万千瓦以上。

05 **油气管网**
建设中哈原油管道二期、中缅油气管道境内段、中亚天然气管道二期，以及西气东输三线、四线工程。输油气管道总长度达到15万公里左右。加快储气库建设。

06 **电网**
加快大型煤电、水电和风电基地外送电工程建设，形成若干条采用先进特高压技术的跨区域输电通道。建成330千伏及以上输电线路20万公里。开展智能电网建设试点，改造建设智能变电站，推广应用智能电表，配套建设电动汽车充电设施。

# 第十二章 构建综合交通运输体系

按照适度超前原则，统筹各种运输方式发展，基本建成国家快速铁路网和高速公路网，初步形成网络设施配套衔接、技术装备先进适用、运输服务安全高效的综合交通运输体系。

### 第一节 完善区际交通网络

加快铁路客运专线、区际干线、煤运通道建设，发展高速铁路，形成快速客运网，强化重载货运网。完善国家公路网规划，加快国家高速公路网剩余路段、瓶颈路段建设，加强国省干线公路改扩建。大力推进长江等内河高等级航道建设，推动内河运输船舶标准化和港口规模化发展。完善煤炭、石油、铁矿石、集装箱等运输系统，提升沿海地区港口群现代化水平。完善以国际枢纽机场和干线机场为骨干、支线机场为补充的航空网络，积极推动通用航

空发展，改革空域管理体制，提高空域资源配置使用效率。

### 第二节 建设城际快速网络

适应城市群发展需要，以轨道交通和高速公路为骨干，以国省干线公路为补充，推进城市群内多层次城际快速交通网络建设。建成京津冀、长江三角洲、珠江三角洲三大城市群城际交通网络，推进重点开发区域城市群的城际干线建设。

### 第三节 优先发展公共交通

实施公共交通优先发展战略，大力发展城市公共交通系统，提高公共交通出行分担比率。科学制定城市轨道交通技术路线，规范建设标准，有序推进轻轨、地铁、有轨电车等城市轨道交通网络建设。积极发展地面快速公交系统，提高线网密度和站点覆盖率。规范发展城市出租车业，合理引导私人机动车出行，倡导非机动方式出行。优化换乘中心功能和布局，提高出行效率。统筹城乡公共交通一体化发展。

### 第四节 提高运输服务水平

按照客运零距离换乘、货运无缝化衔接的要求，加强铁路、公路、港口、机场、城市公共交通的有机衔接，加快综合交通枢纽建设。推广先进装备技术应用，提高交通运输信息化水平。优化运输组织，创新服务方式，推进客票一体联程、货物多式联运。大力发展节能环保的运输工具和运输方式。积极发展公路甩挂运输。加强安全管理，保障运输安全。

<div align="center">专栏 7　交通建设重点　新华社发</div>

## 专栏7 交通建设重点

**01 铁路**

建成"四纵四横"客运专线,建设城市群城际轨道交通干线,建设兰新铁路第二双线、郑州至重庆等区际干线,基本建成快速铁路网,营业里程达到4.5万公里,基本覆盖50万以上人口城市。建成拉萨至日喀则等西部干线,建设山西中南部、蒙西至华中地区等煤运通道。研究建设琼州海峡跨海工程、川藏铁路。

**02 城市轨道交通**

建设北京、上海、广州、深圳等城市轨道交通网络化系统,建成天津、重庆、沈阳、长春、武汉、西安、杭州、福州、南昌、昆明等城市轨道交通主骨架,规划建设合肥、贵阳、石家庄、太原、济南、乌鲁木齐等城市轨道交通骨干线路。

**03 公路**

基本建成由7条放射线、9条纵线和18条横线组成的国家高速公路网,通车里程达到8.3万公里,基本覆盖20万以上人口城市。加大国省干线公路改造力度,国道二级及以上公路里程比重达到70%以上,基本实现具备条件的县城通二级及以上标准公路。

**04 沿海港口**

建设北方煤炭下水港装船码头及华东、华南煤炭中转储运基地工程,大连等港口的大型原油接卸码头工程,宁波—舟山等港口的大型铁矿石接卸码头工程,上海、天津等港口的集装箱码头工程。新增万吨级及以上深水泊位440个左右。

**05 内河水运**

整治长江上游航道,实施长江中游荆江河段航道治理工程,稳步推进长江口12.5米深水航道向上延伸。实施西江航运干线扩能工程和京杭运河升级改造工程,推进长江三角洲高等级航道网及其他高等级航道建设。

**06 民航**

建设北京新机场,扩建广州、南京、长沙、海口、哈尔滨、南宁、兰州、银川等机场,新建一批支线机场和通用机场。研究建设成都、青岛、厦门等新机场。加快新一代空管系统建设。

**07 综合交通枢纽**

建设42个全国性综合交通枢纽。

图2 国家快速铁路网 新华社发

图 2 国家快速铁路网



图 3 国家高速公路网　新华社发

图 3 国家高速公路网

## 第十三章 全面提高信息化水平

加快建设宽带、融合、安全、泛在的下一代国家信息基础设施，推动信息化和工业化深度融合，推进经济社会各领域信息化。

### 第一节 构建下一代信息基础设施

统筹布局新一代移动通信网、下一代互联网、数字广播电视网、卫星通信等设施建设，形成超高速、大容量、高智能国家干线传输网络。引导建设宽带无线城市，推进城市光纤入户，加快农村地区宽带网络建设，全面提高宽带普及率和接入带宽。推动物联网关键技术研发和在重点领域的应用示范。加强云计算服务平台建设。以广电和电信业务双向进入为重点，建立健全法律法规和标准，实现电信网、广电网、互联网三网融合，促进网络互联互通和业务融合。

### 第二节 加快经济社会信息化

推动经济社会各领域信息化。积极发展电子商务，完善面向中小企业的电子商务服务，推动面向全社会的信用服务、网上支付、物流配送等支撑体系建设。大力推进国家电子政务建设，推动重要政务信息系统互联互通、信息共享和业务协同，建设和完善网络行政审批、信息公开、网上信访、电子监察和审计体系。加强市场监管、社会保障、医疗卫生等重要信息系统建设，完善地理、人口、法人、金融、税收、统计等基础信息资源体系，强化信息资源的整合，规范采集和发布，加强社会化综合开发利用。

### 第三节 加强网络与信息安全保障

健全网络与信息安全法律法规，完善信息安全标准体系和认证认可体系，实施信息安全等级保护、风险评估等制度。加快推进安全可控关键软硬件应用试点示范和推广，加强信息网络监测、管控能力建设，确保基础信息网络和重点信息系统安全。推进信息安全保密基础设施建设，构建信息安全保密防护体系。加强互联网管理，确保国家网络与信息安全。

## 第十四章 推进海洋经济发展

坚持陆海统筹，制定和实施海洋发展战略，提高海洋开发、控制、综合管理能力。

### 第一节 优化海洋产业结构

科学规划海洋经济发展，合理开发利用海洋资源，积极发展海洋油气、海洋运输、海洋渔业、滨海旅游等产业，培育壮大海洋生物医药、海水综合利用、海洋工程装备制造等新兴产业。加强海洋基础性、前瞻性、关键性技术研发，提高海洋科技水平，增强海洋开发利用能力。深化港口岸线资源整合和优化港口布局。制定实施海洋主体功能区规划，优化海洋经济空间布局。推进山东、浙江、广东等海洋经济发展试点。

### 第二节 加强海洋综合管理

加强统筹协调，完善海洋管理体制。强化海域和海岛管理，健全海域使用权市场机制，推进海岛保护利用，扶持边远海岛发展。统筹海洋环境保护与陆源污染防治，加强海洋生态系统保护和修复。控制近海资源过度开发，加强围填海管理，严格规范无居民海岛利用活动。完善海洋防灾减灾体系，增强海上突发事件应急处置能力。加强海洋综合调查与测绘工作，积极开展极地、大洋科学考察。完善涉海法律法规和政策，加大海洋执法力度，维护海洋资源开发秩序。加强双边多边海洋事务磋商，积极参与国际海洋事务，保障海上运输通道安全，维护我国海洋权益。

# 第四篇 营造环境推动服务业大发展

把推动服务业大发展作为产业结构优化升级的战略重点，营造有利于服务业发展的政策和体制环境，拓展新领域，发展新业态，培育新热点，推进服务业规模化、品牌化、网络化经营，不断提高服务业比重和水平。

# 第十五章 加快发展生产性服务业

深化专业化分工，加快服务产品和服务模式创新，促进生产性服务业与先进制造业融合，推动生产性服务业加速发展。

### 第一节 有序拓展金融服务业

服务实体经济，防范系统性风险，有序发展和创新金融组织、产品和服务，全面提升金融服务水平。发挥大型金融机构的综合性服务功能，积极发展中小金融机构，围绕促进小型

微型企业发展、推动科技创新、发展绿色经济、支持企业跨境经营，以及发展网上交易等新型服务业态，创新金融产品和服务模式。更好地发挥信用融资、证券、信托、理财、租赁、担保、网商银行等各类金融服务的资产配置和融资服务功能。加强金融基础设施建设，进一步健全金融市场的登记、托管、交易、清算系统。拓宽保险服务领域，积极发展责任保险、信用保险，探索发展巨灾保险，创新保险营销服务方式，规范发展保险中介市场，推进再保险市场建设，建立健全保险服务体系。

### 第二节 大力发展现代物流业

加快建立社会化、专业化、信息化的现代物流服务体系，大力发展第三方物流，优先整合和利用现有物流资源，加强物流基础设施的建设和衔接，提高物流效率，降低物流成本。推动农产品、大宗矿产品、重要工业品等重点领域物流发展。优化物流业发展的区域布局，支持物流园区等物流功能集聚区有序发展。推广现代物流管理，提高物流智能化和标准化水平。

### 第三节 培育壮大高技术服务业

以高技术的延伸服务和支持科技创新的专业化服务为重点，大力发展高技术服务业。加快发展研发设计业，促进工业设计从外观设计向高端综合设计服务转变。加强信息服务，提升软件开发应用水平，发展信息系统集成服务、互联网增值服务、信息安全服务和数字内容服务，发展地理信息产业。积极发展检验检测、知识产权和科技成果转化等科技支撑服务。培育发展一批高技术服务骨干企业和知名品牌。

### 第四节 规范提升商务服务业

大力发展会计、审计、税务、工程咨询、认证认可、信用评估、经纪代理、管理咨询、市场调查等专业服务。积极发展律师、公证、司法鉴定、经济仲裁等法律服务。加快发展项目策划、并购重组、财务顾问等企业管理服务。规范发展人事代理、人才推荐、人员培训、劳务派遣等人力资源服务。促进广告、会展业健康发展。

## 第十六章 大力发展生活性服务业

面向城乡居民生活，丰富服务产品类型，扩大服务供给，提高服务质量，满足多样化需求。

### 第一节 优化发展商贸服务业

优化城市综合超市、购物中心、批发市场等商业网点结构和布局，支持便利店、中小超市、社区菜店等社区商业发展。鼓励和支持连锁经营、物流配送、电子商务等现代流通方式向农村延伸，完善农村服务网点，支持大型超市与农村合作组织对接，改造升级农产品批发市场和农贸市场。引导住宿和餐饮业健康规范发展。支持发展具有国际竞争力的大型商贸流通企业。

### 第二节 积极发展旅游业

全面发展国内旅游，积极发展入境旅游，有序发展出境旅游。坚持旅游资源保护和开发并重，加强旅游基础设施建设，推进重点旅游区、旅游线路建设。推动旅游业特色化发展和旅游产品多样化发展，全面推动生态旅游，深度开发文化旅游，大力发展红色旅游。完善旅游服务体系，加强行业自律和诚信建设，提高旅游服务质量。

### 第三节 鼓励发展家庭服务业

以家庭为服务对象，以社区为重要依托，重点发展家政服务、养老服务和病患陪护等服务，鼓励发展残疾人居家服务，积极发展社区日间照料中心和专业化养老服务机构，因地制宜发展家庭用品配送、家庭教育等特色服务，形成多层次、多形式的家庭服务市场和经营机构。加快建设家庭服务业公益性信息服务平台。加强市场监管，规范家庭服务业市场秩序。

### 第四节 全面发展体育事业和体育产业

大力发展公共体育事业，加强公共体育设施建设，广泛开展全民健身运动，提升广大群众特别是青少年的体育健身意识和健康水平。继续实施农民体育健身工程。优化竞技体育项目结构，提高竞技体育综合实力。发展健身休闲体育，开发体育竞赛和表演市场，发展体育用品、体育中介和场馆运营等服务，促进体育事业和体育产业协调发展。

## 第十七章 营造有利于服务业发展的环境

以开放促改革，以竞争促发展，推动服务业制度创新，完善服务业政策体系，优化服务业发展环境。

### 第一节 加快推进服务领域改革

建立公平、规范、透明的市场准入标准,打破部门分割、地区封锁和行业垄断,扩大服务业开放领域,鼓励和引导各类资本投向服务业,大力发展多种所有制服务企业,建立统一、开放、竞争、有序的服务业市场。深化机关事业单位后勤服务社会化改革。探索适合新型服务业态发展的市场管理办法。推进国家服务业综合改革试点,探索有利于服务业加快发展的体制机制和有效途径。

### 第二节 完善服务业政策

实行鼓励类服务业用电、用水、用气、用热与工业同价。扩大服务业用地供给,工业企业退出的土地优先用于发展服务业。结合增值税改革,完善生产性服务业税收制度。拓宽服务业企业融资渠道,支持符合条件的服务业企业上市融资和发行债券。扩大政府采购服务产品范围。建立健全服务业标准体系。支持服务业企业品牌和网络建设。优化服务业发展布局,推动特大城市形成以服务经济为主的产业结构。

# 第五篇 优化格局 促进区域协调发展和城镇化健康发展

实施区域发展总体战略和主体功能区战略,构筑区域经济优势互补、主体功能定位清晰、国土空间高效利用、人与自然和谐相处的区域发展格局,逐步实现不同区域基本公共服务均等化。坚持走中国特色城镇化道路,科学制定城镇化发展规划,促进城镇化健康发展。

## 第十八章 实施区域发展总体战略

充分发挥不同地区比较优势,促进生产要素合理流动,深化区域合作,推进区域良性互动发展,逐步缩小区域发展差距。

### 第一节 推进新一轮西部大开发

坚持把深入实施西部大开发战略放在区域发展总体战略优先位置,给予特殊政策支持。加强基础设施建设,扩大铁路、公路、民航、水运网络,建设一批骨干水利工程和重点水利枢纽,加快推进油气管道和主要输电通道及联网工程。加强生态环境保护,强化地质灾害防

治，推进重点生态功能区建设，继续实施重点生态工程，构筑国家生态安全屏障。发挥资源优势，实施以市场为导向的优势资源转化战略，在资源富集地区布局一批资源开发及深加工项目，建设国家重要能源、战略资源接续地和产业集聚区，发展特色农业、旅游等优势产业。大力发展科技教育，增强自我发展能力。支持汶川等灾区发展。坚持以线串点、以点带面，推进重庆、成都、西安区域战略合作，推动呼包鄂榆、广西北部湾、成渝、黔中、滇中、藏中南、关中－天水、兰州－西宁、宁夏沿黄、天山北坡等经济区加快发展，培育新的经济增长极。

### 第二节 全面振兴东北地区等老工业基地

发挥产业和科技基础较强的优势，完善现代产业体系，推动装备制造、原材料、汽车、农产品深加工等优势产业升级，大力发展金融、物流、旅游以及软件和服务外包等服务业。深化国有企业改革，加快厂办大集体改革和"债转股"资产处置，大力发展非公有制经济和中小企业。加快转变农业发展方式，建设稳固的国家粮食战略基地。着力保护好黑土地、湿地、森林和草原，推进大小兴安岭和长白山林区生态保护和经济转型。促进资源枯竭地区转型发展，增强资源型城市可持续发展能力。统筹推进全国老工业基地调整改造。重点推进辽宁沿海经济带和沈阳经济区、长吉图经济区、哈大齐和牡绥地区等区域发展。

### 第三节 大力促进中部地区崛起

发挥承东启西的区位优势，壮大优势产业，发展现代产业体系，巩固提升全国重要粮食生产基地、能源原材料基地、现代装备制造及高技术产业基地和综合交通运输枢纽地位。改善投资环境，有序承接东部地区和国际产业转移。提高资源利用效率和循环经济发展水平。加强大江大河大湖综合治理。进一步细化和落实中部地区比照实施振兴东北地区等老工业基地和西部大开发的有关政策。加快构建沿陇海、沿京广、沿京九和沿长江中游经济带，促进人口和产业的集聚，加强与周边城市群的对接和联系。重点推进太原城市群、皖江城市带、鄱阳湖生态经济区、中原经济区、武汉城市圈、环长株潭城市群等区域发展。

### 第四节 积极支持东部地区率先发展

发挥东部地区对全国经济发展的重要引领和支撑作用，在更高层次参与国际合作和竞争，在改革开放中先行先试，在转变经济发展方式、调整经济结构和自主创新中走在全国前列。着力提高科技创新能力，加快国家创新型城市和区域创新平台建设。着力培育产业竞争新优

势,加快发展战略性新兴产业、现代服务业和先进制造业。着力推进体制机制创新,率先完善社会主义市场经济体制。着力增强可持续发展能力,进一步提高能源、土地、海域等资源利用效率,加大环境污染治理力度,化解资源环境瓶颈制约。推进京津冀、长江三角洲、珠江三角洲地区区域经济一体化发展,打造首都经济圈,重点推进河北沿海地区、江苏沿海地区、浙江舟山群岛新区、海峡西岸经济区、山东半岛蓝色经济区等区域发展,建设海南国际旅游岛。

### 第五节 加大对革命老区、民族地区、边疆地区和贫困地区扶持力度

进一步加大扶持力度,加强基础设施建设,强化生态保护和修复,提高公共服务水平,切实改善老少边穷地区生产生活条件。继续实施扶持革命老区发展的政策措施。贯彻落实扶持民族地区发展的政策,大力支持西藏、新疆和其他民族地区发展,扶持人口较少民族发展。深入推进兴边富民行动,陆地边境地区享有西部开发政策,支持边境贸易和民族特需品发展。在南疆地区、青藏高原东缘地区、武陵山区、乌蒙山区、滇西边境山区、秦巴山—六盘山区以及中西部其他集中连片特殊困难地区,实施扶贫开发攻坚工程,加大以工代赈和易地扶贫搬迁力度。支持新疆生产建设兵团建设和发展。推进三峡等库区后续发展。对老少边穷地区中央安排的公益性建设项目,取消县级并逐步减少市级配套资金。实行地区互助政策,开展多种形式对口支援。

# 第十九章 实施主体功能区战略

按照全国经济合理布局的要求,规范开发秩序,控制开发强度,形成高效、协调、可持续的国土空间开发格局。

### 第一节 优化国土空间开发格局

统筹谋划人口分布、经济布局、国土利用和城镇化格局,引导人口和经济向适宜开发的区域集聚,保护农业和生态发展空间,促进人口、经济与资源环境相协调。对人口密集、开发强度偏高、资源环境负荷过重的部分城市化地区要优化开发。对资源环境承载能力较强、集聚人口和经济条件较好的城市化地区要重点开发。对具备较好的农业生产条件、以提供农产品为主体功能的农产品主产区,要着力保障农产品供给安全。对影响全局生态安全的重点生态功能区,要限制大规模、高强度的工业化城镇化开发。对依法设立的各级各类自然文化资源保护区和其他需要特殊保护的区域要禁止开发。

专栏 8　主体功能区发展方向 新华社发

**01　城市化地区**

优化开发的城市化地区，要培育若干各具特色和优势的区域创新中心，加快形成一批拥有自主知识产权的核心技术和知名品牌，推动产业结构向高端、高效、高附加值转变；优化城乡开发布局，控制建设用地增长，保护并恢复农业和生态用地，改善区域生态环境。

重点开发的城市化地区，要加大交通、能源等基础设施建设力度，优先布局重大制造业项目，对依托能源和矿产资源的资源加工项目要优先在中西部重点开发区域布局；统筹工业和城镇发展布局，在保障农业和生态发展空间基础上适度扩大建设用地规模，促进经济集聚与人口集聚同步。

**02　农产品主产区**

强化耕地保护，稳定粮食、棉花、油料、糖料、蔬菜等主要农产品生产，集中各种资源发展现代农业，推动农业的规模化、产业化，发展农产品深加工及副产物的综合利用，加强农村基础设施建设和公共服务。以县城为重点推进城镇建设和非农产业发展。

**03　重点生态功能区**

限制开发的重点生态功能区，要加大生态环境保护和修复投入力度，增强水源涵养、水土保持、防风固沙和生物多样性维护等功能，在西部地区优先启动国家重点生态功能区保护修复工程。

禁止开发的重点生态功能区，要依法实施强制性保护，严格控制人为因素对自然生态和文化自然遗产原真性、完整性的干扰，严禁不符合主体功能定位的各类开发活动；在清理规范的基础上，加大投入力度，完善管理体制和政策。

## 第二节 实施分类管理的区域政策

基本形成适应主体功能区要求的法律法规和政策，完善利益补偿机制。中央财政要逐年加大对农产品主产区、重点生态功能区特别是中西部重点生态功能区的转移支付力度，增强基本公共服务和生态环境保护能力，省级财政要完善对下转移支付政策。实行按主体功能区安排与按领域安排相结合的政府投资政策，按主体功能区安排的投资主要用于支持重点生态功能区和农产品主产区的发展，按领域安排的投资要符合各区域的主体功能定位和发展方向。修改完善现行产业指导目录，明确不同主体功能区的鼓励、限制和禁止类产业。实行差别化的土地管理政策，科学确定各类用地规模，严格土地用途管制。对不同主体功能区实行不同

的污染物排放总量控制和环境标准。相应完善农业、人口、民族、应对气候变化等政策。

### 第三节 实行各有侧重的绩效评价

在强化对各类地区提供基本公共服务、增强可持续发展能力等方面评价基础上，按照不同区域的主体功能定位，实行差别化的评价考核。对优化开发的城市化地区，强化经济结构、科技创新、资源利用、环境保护等的评价。对重点开发的城市化地区，综合评价经济增长、产业结构、质量效益、节能减排、环境保护和吸纳人口等。对限制开发的农产品主产区和重点生态功能区，分别实行农业发展优先和生态保护优先的绩效评价，不考核地区生产总值、工业等指标。对禁止开发的重点生态功能区，全面评价自然文化资源原真性和完整性保护情况。

### 第四节 建立健全衔接协调机制

发挥全国主体功能区规划在国土空间开发方面的战略性、基础性和约束性作用。按照推进形成主体功能区的要求，完善区域规划编制，做好专项规划、重大项目布局与主体功能区规划的衔接协调。推进市县空间规划工作，落实区域主体功能定位，明确功能区布局。研究制定各类主体功能区开发强度、环境容量等约束性指标并分解落实。完善覆盖全国、统一协调、更新及时的国土空间动态监测管理系统，开展主体功能区建设的跟踪评估。

## 第二十章 积极稳妥推进城镇化

优化城市化布局和形态，加强城镇化管理，不断提升城镇化的质量和水平。

### 第一节 构建城市化战略格局

按照统筹规划、合理布局、完善功能、以大带小的原则，遵循城市发展客观规律，以大城市为依托，以中小城市为重点，逐步形成辐射作用大的城市群，促进大中小城市和小城镇协调发展。构建以陆桥通道、沿长江通道为两条横轴，以沿海、京哈京广、包昆通道为三条纵轴，以轴线上若干城市群为依托、其他城市化地区和城市为重要组成部分的城市化战略格局，促进经济增长和市场空间由东向西、由南向北拓展。

在东部地区逐步打造更具国际竞争力的城市群，在中西部有条件的地区培育壮大若干城市群。科学规划城市群内各城市功能定位和产业布局，缓解特大城市中心城区压力，强化中小城市产业功能，增强小城镇公共服务和居住功能，推进大中小城市基础设施一体化建设和

网络化发展。积极挖掘现有中小城市发展潜力，优先发展区位优势明显、资源环境承载能力较强的中小城市。有重点地发展小城镇，把有条件的东部地区中心镇、中西部地区县城和重要边境口岸逐步发展成为中小城市。

### 第二节 稳步推进农业转移人口转为城镇居民

把符合落户条件的农业转移人口逐步转为城镇居民作为推进城镇化的重要任务。充分尊重农民在进城或留乡问题上的自主选择权，切实保护农民承包地、宅基地等合法权益。坚持因地制宜、分步推进，把有稳定劳动关系并在城镇居住一定年限的农民工及其家属逐步转为城镇居民。特大城市要合理控制人口规模，大中城市要加强和改进人口管理，继续发挥吸纳外来人口的重要作用，中小城市和小城镇要根据实际放宽落户条件。鼓励各地探索相关政策和办法，合理确定农业转移人口转为城镇居民的规模。

对暂时不具备在城镇落户条件的农民工，要改善公共服务，加强权益保护。以流入地全日制公办中小学为主，保证农民工随迁子女平等接受义务教育，并做好与高中阶段教育的衔接。将与企业建立稳定劳动关系的农民工纳入城镇职工基本养老和医疗保险。建立农民工基本培训补贴制度，推进农民工培训资金省级统筹。多渠道多形式改善农民工居住条件，鼓励采取多种方式将符合条件的农民工纳入城镇住房保障体系。

### 第三节 增强城镇综合承载能力

坚持以人为本、节地节能、生态环保、安全实用、突出特色、保护文化和自然遗产的原则，科学编制城市规划，健全城镇建设标准，强化规划约束力。合理确定城市开发边界，规范新城新区建设，提高建成区人口密度，调整优化建设用地结构，防止特大城市面积过度扩张。预防和治理"城市病"。

统筹地上地下市政公用设施建设，全面提升交通、通信、供电、供热、供气、供排水、污水垃圾处理等基础设施水平，增强消防等防灾能力。扩大城市绿化面积和公共活动空间，加快面向大众的城镇公共文化、体育设施建设。推进"城中村"和城乡结合部改造。加强建筑市场监管，规范建筑市场秩序。深化城市建设投融资体制改革，发行市政项目建设债券。加强城市综合管理。推动数字城市建设，提高信息化和精细化管理服务水平。注重文化传承与保护，改善城市人文环境。

图 4 "两横三纵"城市化战略格局　新华社发



图 4 "两横三纵"城市化战略格局

# 第六篇 绿色发展 建设资源节约型、环境友好型社会

面对日趋强化的资源环境约束，必须增强危机意识，树立绿色、低碳发展理念，以节能减排为重点，健全激励与约束机制，加快构建资源节约、环境友好的生产方式和消费模式，增强可持续发展能力，提高生态文明水平。

## 第二十一章 积极应对全球气候变化

坚持减缓和适应气候变化并重，充分发挥技术进步的作用，完善体制机制和政策体系，提高应对气候变化能力。

### 第一节 控制温室气体排放

综合运用调整产业结构和能源结构、节约能源和提高能效、增加森林碳汇等多种手段，大幅度降低能源消耗强度和二氧化碳排放强度，有效控制温室气体排放。合理控制能源消费

总量，严格用能管理，加快制定能源发展规划，明确总量控制目标和分解落实机制。推进植树造林，新增森林面积１２５０万公顷。加快低碳技术研发应用，控制工业、建筑、交通和农业等领域温室气体排放。探索建立低碳产品标准、标识和认证制度，建立完善温室气体排放统计核算制度，逐步建立碳排放交易市场。推进低碳试点示范。

### 第二节 增强适应气候变化能力

制定国家适应气候变化总体战略，加强气候变化科学研究、观测和影响评估。在生产力布局、基础设施、重大项目规划设计和建设中，充分考虑气候变化因素。加强适应气候变化特别是应对极端气候事件能力建设，加快适应技术研发推广，提高农业、林业、水资源等重点领域和沿海、生态脆弱地区适应气候变化水平。加强对极端天气和气候事件的监测、预警和预防，提高防御和减轻自然灾害的能力。

### 第三节 广泛开展国际合作

坚持共同但有区别的责任原则，积极参与国际谈判，推动建立公平合理的应对气候变化国际制度。加强气候变化领域国际交流和战略政策对话，在科学研究、技术研发和能力建设等方面开展务实合作，推动建立资金、技术转让国际合作平台和管理制度。为发展中国家应对气候变化提供支持和帮助。

## 第二十二章 加强资源节约和管理

落实节约优先战略，全面实行资源利用总量控制、供需双向调节、差别化管理，大幅度提高能源资源利用效率，提升各类资源保障程度。

### 第一节 大力推进节能降耗

抑制高耗能产业过快增长，突出抓好工业、建筑、交通、公共机构等领域节能，加强重点用能单位节能管理。强化节能目标责任考核，健全奖惩制度。完善节能法规和标准，制订完善并严格执行主要耗能产品能耗限额和产品能效标准，加强固定资产投资项目节能评估和审查。健全节能市场化机制，加快推行合同能源管理和电力需求侧管理，完善能效标识、节能产品认证和节能产品政府强制采购制度。推广先进节能技术和产品。加强节能能力建设。开展万家企业节能低碳行动，深入推进节能减排全民行动。

专栏 9 节能重点工程 新华社发

专栏9 节能重点工程

01 节能改造工程
继续实施热电联产、电机系统节能、能量系统优化、余热余压利用、锅炉（窑炉）改造、节约和替代石油、建筑节能、交通节能、绿色照明等节能改造项目。

02 节能产品惠民工程
加大对高效节能家电、汽车、电机、照明产品等的补贴推广力度，扩大实施范围。

03 节能技术产业化示范工程
支持余热余压利用、高效电机产品等重大、关键节能技术与产品示范项目，推动重大节能技术产品规模化生产和应用。

04 合同能源管理推广工程
推动节能服务公司采用合同能源管理方式为用能单位实施节能改造，扶持壮大节能服务产业。

### 第二节 加强水资源节约

实行最严格的水资源管理制度，加强用水总量控制与定额管理，严格水资源保护，加快制定江河流域水量分配方案，加强水权制度建设，建设节水型社会。强化水资源有偿使用，严格水资源费的征收、使用和管理。推进农业节水增效，推广普及管道输水、膜下滴灌等高效节水灌溉技术，新增５０００万亩高效节水灌溉面积，支持旱作农业示范基地建设。在保障灌溉面积、灌溉保证率和农民利益的前提下，建立健全工农业用水水权转换机制。加强城市节约用水，提高工业用水效率，促进重点用水行业节水技术改造和居民生活节水。加强水量水质监测能力建设。实施地下水监测工程，严格控制地下水开采。大力推进再生水、矿井水、海水淡化和苦咸水利用。

### 第三节 节约集约利用土地

坚持最严格的耕地保护制度，划定永久基本农田，建立保护补偿机制，从严控制各类建设占用耕地，落实耕地占补平衡，实行先补后占，确保耕地保有量不减少。实行最严格的节约用地制度，从严控制建设用地总规模。按照节约集约和总量控制的原则，合理确定新增建设用地规模、结构、时序。提高土地保有成本，盘活存量建设用地，加大闲置土地清理处置力度，鼓励深度开发利用地上地下空间。强化土地利用总体规划和年度计划管控，严格用途管制，健全节约土地标准，加强用地节地责任和考核。单位国内生产总值建设用地下降３０％。

### 第四节 加强矿产资源勘查、保护和合理开发

实施地质找矿战略工程，加大勘查力度，实现地质找矿重大突破，形成一批重要矿产资源的战略接续区。建立重要矿产资源储备体系。加强重要优势矿产保护和开采管理，完善矿产资源有偿使用制度，严格执行矿产资源规划分区管理制度，促进矿业权合理设置和勘查开发布局优化。实行矿山最低开采规模标准，推进规模化开采。发展绿色矿业，强化矿产资源节约与综合利用，提高矿产资源开采回采率、选矿回收率和综合利用率。推进矿山地质环境恢复治理和矿区土地复垦，完善矿山环境恢复治理保证金制度。加强矿产资源和地质环境保护执法监察，坚决制止乱挖滥采。

# 第二十三章 大力发展循环经济

按照减量化、再利用、资源化的原则，减量化优先，以提高资源产出效率为目标，推进生产、流通、消费各环节循环经济发展，加快构建覆盖全社会的资源循环利用体系。

### 第一节 推行循环型生产方式

加快推行清洁生产，在农业、工业、建筑、商贸服务等重点领域推进清洁生产示范，从源头和全过程控制污染物产生和排放，降低资源消耗。加强共伴生矿产及尾矿综合利用，提高资源综合利用水平。推进大宗工业固体废物和建筑、道路废弃物以及农林废物资源化利用，工业固体废物综合利用率达到７２％。按照循环经济要求规划、建设和改造各类产业园区，实现土地集约利用、废物交换利用、能量梯级利用、废水循环利用和污染物集中处理。推动产业循环式组合，构筑链接循环的产业体系。资源产出率提高１５％。

### 第二节 健全资源循环利用回收体系

完善再生资源回收体系，加快建设城市社区和乡村回收站点、分拣中心、集散市场"三位一体"的回收网络，推进再生资源规模化利用。加快完善再制造旧件回收体系，推进再制造产业发展。建立健全垃圾分类回收制度，完善分类回收、密闭运输、集中处理体系，推进餐厨废弃物等垃圾资源化利用和无害化处理。

### 第三节 推广绿色消费模式

倡导文明、节约、绿色、低碳消费理念，推动形成与我国国情相适应的绿色生活方式和消费模式。鼓励消费者购买使用节能节水产品、节能环保型汽车和节能省地型住宅，减少使

用一次性用品,限制过度包装,抑制不合理消费。推行政府绿色采购,逐步提高节能节水产品和再生利用产品比重。

### 第四节 强化政策和技术支撑

加强规划指导、财税金融等政策支持,完善法律法规和标准,实行生产者责任延伸制度,制订循环经济技术和产品名录,建立再生产品标识制度,建立完善循环经济统计评价制度。开发应用源头减量、循环利用、再制造、零排放和产业链接技术,推广循环经济典型模式。深入推进国家循环经济示范,组织实施循环经济"十百千示范"行动。推进甘肃省和青海柴达木循环经济示范区等循环经济示范试点、山西资源型经济转型综合配套改革试验区建设。

专栏 10 循环经济重点工程 新华社发



**专栏10 循环经济重点工程**

**01 资源综合利用**
支持共伴生矿产资源,粉煤灰、煤矸石、工业副产石膏、冶炼和化工废渣、尾矿、建筑废物等大宗固体废物以及秸秆、畜禽养殖粪污、废弃木料综合利用。培育一批资源综合利用示范基地。

**02 废旧商品回收体系示范**
建设 80 个网点布局合理、管理规范、回收方式多元、重点品种回收率高的废旧商品回收体系示范城市。

**03 "城市矿产"示范基地**
建设 50 个技术先进、环保达标、管理规范、利用规模化、辐射作用强的"城市矿产"示范基地,实现废旧金属、废弃电器电子产品、废纸、废塑料等资源再生利用、规模利用和高值利用。

**04 再制造产业化**
建设若干国家级再制造产业集聚区,培育一批汽车零部件、工程机械、矿山机械、机床、办公用品等再制造示范企业,实现再制造的规模化、产业化发展。完善再制造产品标准体系。

**05 餐厨废弃物资源化**
在 100 个城市(区)建设一批科技含量高、经济效益好的餐厨废弃物资源化利用设施,实现餐厨废弃物的资源化利用和无害化处理。

**06 产业园区循环化改造**
在重点园区或产业集聚区进行循环化改造。

**07 资源循环利用技术示范推广**
建设若干重大循环经济共性、关键技术专用和成套设备生产、应用示范项目与服务平台。

# 第二十四章 加大环境保护力度

以解决饮用水不安全和空气、土壤污染等损害群众健康的突出环境问题为重点,加强综合治理,明显改善环境质量。

## 第一节 强化污染物减排和治理

实施主要污染物排放总量控制。实行严格的饮用水水源地保护制度,提高集中式饮用水水源地水质达标率。加强造纸、印染、化工、制革、规模化畜禽养殖等行业污染治理,继续推进重点流域和区域水污染防治,加强重点湖库及河流环境保护和生态治理,加大重点跨界河流环境管理和污染防治力度,加强地下水污染防治。推进火电、钢铁、有色、化工、建材等行业二氧化硫和氮氧化物治理,强化脱硫脱硝设施稳定运行,加大机动车尾气治理力度。深化颗粒物污染防治。加强恶臭污染物治理。建立健全区域大气污染联防联控机制,控制区域复合型大气污染。地级以上城市空气质量达到二级标准以上的比例达到80%。有效控制城市噪声污染。提高城镇生活污水和垃圾处理能力,城市污水处理率和生活垃圾无害化处理率分别达到85%和80%。

## 第二节 防范环境风险

加强重金属污染综合治理,以湘江流域为重点,开展重金属污染治理与修复试点示范。加大持久性有机物、危险废物、危险化学品污染防治力度,开展受污染场地、土壤、水体等污染治理与修复试点示范。强化核与辐射监管能力,确保核与辐射安全。推进历史遗留的重大环境隐患治理。加强对重大环境风险源的动态监测与风险预警及控制,提高环境与健康风险评估能力。

## 第三节 加强环境监管

健全环境保护法律法规和标准体系,完善环境保护科技和经济政策,加强环境监测、预警和应急能力建设。加大环境执法力度,实行严格的环保准入,依法开展环境影响评价,强化产业转移承接的环境监管。严格落实环境保护目标责任制,强化总量控制指标考核,健全重大环境事件和污染事故责任追究制度,建立环保社会监督机制。

专栏 11　环境治理重点工程　新华社发

专栏 11　环境治理重点工程

01　城镇生活污水、垃圾处理设施建设工程
　　加快建设城镇生活污水、污泥、垃圾处理处置设施，同步建设和合理配套污水收集管网、垃圾收运设施。

02　重点流域水环境整治工程
　　加强"三河三湖"、松花江、三峡库区及上游、丹江口库区及上游、黄河中上游等重点流域综合治理，加大长江中下游、珠江流域和生态脆弱的高原湖泊水污染防治力度，推进渤海等重点海域综合治理。

03　脱硫脱硝工程
　　新建燃煤机组配套建设脱硫、脱硝装置，新建水泥生产线安装效率不低于 60%的脱硝装置，钢铁烧结机和石化行业安装脱硫装置。

04　重金属污染防治工程
　　加强重点区域、重点行业和重点企业重金属污染防治，重点企业基本实现稳定达标排放，湘江等流域、区域重金属污染治理取得明显成效。

# 第二十五章　促进生态保护和修复

坚持保护优先和自然修复为主，加大生态保护和建设力度，从源头上扭转生态环境恶化趋势。

## 第一节　构建生态安全屏障

加强重点生态功能区保护和管理，增强涵养水源、保持水土、防风固沙能力，保护生物多样性，构建以青藏高原生态屏障、黄土高原－川滇生态屏障、东北森林带、北方防沙带和南方丘陵山地带以及大江大河重要水系为骨架，以其他国家重点生态功能区为重要支撑，以点状分布的国家禁止开发区域为重要组成的生态安全战略格局。

## 第二节　强化生态保护与治理

继续实施天然林资源保护工程，巩固和扩大退耕还林还草、退牧还草等成果，推进荒漠化、石漠化和水土流失综合治理，保护好林草植被和河湖、湿地。搞好森林草原管护，加强森林草原防火和病虫害防治，实施草原生态保护补偿奖励机制。强化自然保护区建设监管，提高管护水平。加强生物安全管理，加大生物物种资源保护和管理力度，有效防范物种资源丧失与流失，积极防治外来物种入侵。

### 第三节 建立生态补偿机制

按照谁开发谁保护、谁受益谁补偿的原则，加快建立生态补偿机制。加大对重点生态功能区的均衡性转移支付力度，研究设立国家生态补偿专项资金。推行资源型企业可持续发展准备金制度。鼓励、引导和探索实施下游地区对上游地区、开发地区对保护地区、生态受益地区对生态保护地区的生态补偿。积极探索市场化生态补偿机制。加快制定实施生态补偿条例。

专栏 12 生态保护和修复重点工程 新华社发

## 专栏12  生态保护和修复重点工程

**01  天然林资源保护二期工程**
对天然林资源保护工程区内 1.07 亿公顷森林进行全面有效管护，加强公益林建设和后备森林资源培育。

**02  退耕还林还草**
在重点生态脆弱区和重要生态区位继续实施退耕还林还草，重点治理 25 度以上坡耕地。

**03  防护林体系建设**
继续实施"三北"、沿海、长江流域、珠江流域等防护林工程，增加森林植被。

**04  京津风沙源治理**
完成一期工程，启动二期工程，进一步治理沙化土地。

**05  重点自然生态系统保护**
依法划建一批国家级沙化土地封禁保护区，开展野生动植物保护及自然保护区建设，加强湿地保护与恢复。

**06  草原生态保护与建设**
实施退牧还草、南方草原开发利用和草原防灾减灾等工程，建设草原围栏，改良草原 3 亿亩，人工种草 1.5 亿亩。

**07  水土保持与河湖生态修复**
继续实施国家水土保持重点工程，开展坡耕地综合整治，实施三峡、丹江口库区等重点地区水土保持，新增水土流失治理面积 25 万平方公里。加强石羊河、塔里木河等河湖的综合治理与修复及准噶尔盆地南缘防沙治沙工程建设，推进敦煌水资源合理利用与生态保护。

**08  岩溶地区石漠化综合治理**
逐步扩大石漠化综合治理试点县规模，通过加强林草植被保护和建设、合理开发利用草地资源等措施，加大石漠化综合治理力度。

**09  黄土高原地区综合治理**
通过水土保持及土地整治、森林植被保护和建设、草食畜牧业发展等措施，加大水土流失以及荒漠化严重地区综合治理力度。

**10  西藏生态安全屏障保护与建设**
通过天然植被保护、退牧还草、防沙治沙、水土保持等措施，使全区 30%以上中度和重度退化草地得到有效治理，重点区域 30%的可治理沙化土地和 20%的水力侵蚀面积得到治理。

**11  三江源自然保护区生态保护与建设**
保护和恢复林草植被，遏制草地植被退化、沙化，增强保持水土、涵养水源能力。

**12  祁连山水源涵养区生态保护和综合治理**
加强森林、草原、湿地的保护和修复，增强生态系统稳定性，涵养水源，保持水土。

**13  甘南黄河重要水源补给生态功能区生态保护与建设**
通过退牧还草、沙化草原综合治理、草原鼠虫害综合防治等措施，提高黄河水源涵养能力。

**14  青藏高原东南缘生态环境保护**
实施森林、草原、湿地生态系统保护与建设工程，治理沙化面积250万亩。

图 5 "两屏三带"生态安全战略格局　新华社发



图 5 "两屏三带"生态安全战略格局

# 第二十六章 加强水利和防灾减灾体系建设

加强水利基础设施建设,在继续推进大江大河治理基础上,积极开展重要支流、湖泊和中小河流治理,增强城乡供水和防洪能力。健全防灾减灾体系,增强抵御自然灾害能力。

## 第一节 提高供水保障能力

完善南北调配、东西互济、河库联调的水资源调配体系,建设一批跨流域调水和骨干水源工程,统筹推进中小微型水源工程建设,增加水资源供给和储备能力。推动解决西南等地区工程性缺水和西北等地区资源性缺水问题。新增年供水能力４００亿立方米。加强雨洪资源和云水资源利用。推进水文水资源管理基础设施和重大水利工程调度管理系统建设。

## 第二节 增强防洪能力

继续加强淮河、长江、黄河、洞庭湖、鄱阳湖等大江大河大湖治理和重要蓄滞洪区建设,建成一批控制性枢纽工程,提高重点防洪保护区的防洪能力。加大中小河流堤防建设和河道整治力度,基本完成流域面积２００平方公里以上有防洪任务的重点中小河流治理。加快病险水库和水闸除险加固,消除安全隐患,增强防洪能力。加强海堤达标建设和重要河口综合

治理。搞好跨界河流国土防护治理。

### 第三节 加强山洪地质气象地震灾害防治

提高山洪、地质灾害防治能力,加快建立灾害调查评价体系、监测预警体系、防治体系、应急体系,加快实施搬迁避让和重点治理。加强重点时段、重点地区山洪地质灾害防治,对滑坡、泥石流等重点突发性地质灾害隐患实施监测预警和综合治理示范,开展重要城市和地区地面沉降、地裂缝等缓变性地质灾害的综合治理。加强气象灾害监测预警预报和信息发布系统建设。提高地震监测分析与震灾防御能力。

专栏 13 水利和防灾减灾重点工程 新华社发



**专栏 13 水利和防灾减灾重点工程**

**01 城乡水源及供水工程**
完成南水北调东、中线一期主体和配套工程建设,加快建设贵州黔中引水、青海引大济湟调水总干渠等重点水资源调配工程。加快推进云南滇中引水、陕西引汉济渭、吉林中部引水、安徽引江济巢等调水工程前期工作。建成西藏旁多、云南小中甸、辽宁青山、四川小井沟、海南红岭、江西浯溪口等一批大型水库以及西南等地区一批中型水库。

**02 大江大河大湖和中小河流治理工程**
继续推进淮河干流扩大行洪能力、长江中下游河势控制、黄河宁蒙河段治理及下游河段治理等河道整治和堤防建设,加快四川亭子口、湖南涔天河、江西峡江、广西大藤峡、河南河口村等流域控制性枢纽工程建设,加强洞庭湖、鄱阳湖重点圩垸整治,加强海堤达标建设和重要河口治理。加强中小河流治理,优先治理洪涝灾害易发、人口密集、保护对象重要的河流及河段。

**03 地质灾害防治工程**
完成特大型地质灾害隐患点的治理。对地质灾害隐患点实施居民搬迁。建设地质灾害隐患点监测预警系统。

# 第七篇 创新驱动 实施科教兴国战略和人才强国战略

全面落实国家中长期科技、教育、人才规划纲要,大力提高科技创新能力,加快教育改革发展,发挥人才资源优势,推进创新型国家建设。

# 第二十七章 增强科技创新能力

坚持自主创新、重点跨越、支撑发展、引领未来的方针，加快建设国家创新体系，着力提高企业创新能力，促进科技成果向现实生产力转化，推动经济发展更多依靠科技创新驱动。

## 第一节 推进重大科学技术突破

把握科技发展趋势，超前部署基础研究和前沿技术研究，推动重大科学发现和新学科产生，在物质科学、生命科学、空间科学、地球科学、纳米科技等领域抢占未来科技竞争制高点。促进科技进步与产业升级、民生改善紧密结合，面向经济社会发展重大需求，在现代农业、装备制造、生态环保、能源资源、信息网络、新型材料、公共安全和健康等领域取得新突破。加快实施国家重大科技专项，增强共性、核心技术突破能力。

## 第二节 加快建立以企业为主体的技术创新体系

深化科技体制改革，促进全社会科技资源高效配置和综合集成。重点引导和支持创新要素向企业集聚，加大政府科技资源对企业的支持力度，加快建立以企业为主体、市场为导向、产学研相结合的技术创新体系，使企业真正成为研究开发投入、技术创新活动、创新成果应用的主体。增强科研院所和高校创新动力，鼓励大型企业加大研发投入，激发中小企业创新活力，推动建立企业、科研院所和高校共同参与的创新战略联盟，发挥企业家和科技领军人才在科技创新中的重要作用。加强军民科技资源集成融合，鼓励发展科技中介服务，提高服务企业能力。发挥国家创新型城市、自主创新示范区、高新区的集聚辐射带动作用，加快形成若干区域创新中心，把北京中关村逐步建设成为具有全球影响力的科技创新中心。

## 第三节 加强科技基础设施建设

围绕增强原始创新、集成创新和引进消化吸收再创新能力，强化基础性、前沿性技术和共性技术研究平台建设，建设和完善国家重大科技基础设施，加强相互配套、开放共享和高效利用。在重点学科和战略高技术领域新建若干国家科学中心、国家（重点）实验室，构建国家科技基础条件平台。在关键产业技术领域建设一批国家工程实验室，优化国家工程中心建设布局。加强企业技术中心建设，支持面向企业的技术开发平台和技术创新服务平台建设。深入实施全民科学素质行动计划，加强科普基础设施建设，强化面向公众的科学普及。

### 第四节 强化科技创新支持政策

强化支持企业创新和科研成果产业化的财税金融政策。保持财政科技经费投入稳定增长，加大政府对基础研究投入，深化科研经费管理制度改革。全面落实企业研发费用加计扣除等促进技术进步的税收激励政策。实施知识产权质押等鼓励创新的金融政策。建立健全技术产权交易市场。实施知识产权战略，完善知识产权法律制度，加强知识产权的创造、运用、保护和管理，加大知识产权执法力度。鼓励采用和推广具有自主知识产权的技术标准。完善科技成果评价奖励制度，加强科研诚信建设。

专栏 14 科技创新能力建设重点　新华社发



专栏 14　科技创新能力建设重点

**01 重大科技专项**

继续实施核心电子器件、高端通用芯片及基础软件，极大规模集成电路制造技术及成套工艺，新一代宽带无线移动通信，高档数控机床与基础制造技术，大型油气田及煤层气开发，大型先进压水堆及高温气冷堆核电站，水体污染控制与治理，转基因生物新品种培育，重大新药创制，艾滋病和病毒性肝炎等重大传染病防治，大型飞机，高分辨率对地观测系统，载人航天与探月工程等。

**02 重点科技计划**

实施重点基础研究发展计划（973 计划）、高技术研究发展计划（863 计划）、科技支撑计划和国家自然科学基金，实施蛋白质、量子调控、纳米、发育与生殖研究等重大科学研究计划。

**03 科学研究设施**

建设自由电子激光、散裂中子源等国家重大科技基础设施。

**04 知识创新工程**

建设凝聚态物理、数学与复杂系统、地球与环境、空间及海洋等科学中心，建设清洁能源、绿色智能制造、小卫星及空间感知、大陆及海洋深部勘探技术等研发基地。

**05 技术创新工程**

建设新能源汽车、碳纤维复合材料、数字家庭网络等国家工程中心和工程实验室，强化企业技术中心、创新型企业和产业技术创新战略联盟，培育自主创新百强企业。

# 第二十八章　加快教育改革发展

全面贯彻党的教育方针，保障公民依法享有受教育的权利，办好人民满意的教育。按照优先发展、育人为本、改革创新、促进公平、提高质量的要求，推动教育事业科学发展，提高教育现代化水平。

### 第一节 统筹发展各级各类教育

积极发展学前教育，学前一年毛入园率提高到８５％。巩固九年义务教育普及成果，全面提高质量和水平。基本普及高中阶段教育，推动普通高中多样化发展。大力发展职业教育，加快发展面向农村的职业教育。全面提高高等教育质量，加快世界一流大学、高水平大学和重点学科建设，扩大应用型、复合型、技能型人才培养规模。重视和支持民族教育发展，推进"双语教学"。关心和支持特殊教育。加快发展继续教育，建设全民学习、终身学习的学习型社会。

### 第二节 大力促进教育公平

合理配置公共教育资源，重点向农村、边远、贫困、民族地区倾斜，加快缩小教育差距。促进义务教育均衡发展，统筹规划学校布局，推进义务教育学校标准化建设。实行县（市）域内城乡中小学教师编制和工资待遇同一标准，以及教师和校长交流制度。取消义务教育阶段重点校和重点班。新增高校招生计划向中西部倾斜，扩大东部高校在中西部地区招生规模，创新东西部高校校际合作机制。改善特殊教育学校办学条件，逐步实行残疾学生高中阶段免费教育。健全国家资助制度，扶助经济困难家庭学生完成学业。

### 第三节 全面实施素质教育

遵循教育规律和学生身心发展规律，坚持德育为先、能力为重，改革教学内容、方法和评价制度，促进学生德智体美全面发展。建立国家义务教育质量基本标准和监测制度，切实减轻中小学生课业负担。全面实施高中学业水平考试和综合素质评价，克服应试教育倾向。实行工学结合、校企合作、顶岗实习的职业教育培养模式，提高学生就业的技能和本领。全面实施高校本科教学质量和教学改革工程，健全教学质量保障体系。完善研究生培养机制。严格教师资质，加强师德师风建设，提高校长和教师专业化水平，鼓励优秀人才终身从教。

### 第四节 深化教育体制改革

改进考试招生办法，逐步形成分类考试、综合评价、多元录取的制度。加快建设现代学校制度，推进政校分开、管办分离。落实和扩大学校办学自主权。进一步明确中央和地方责任，加强省级政府教育统筹。鼓励引导社会力量兴办教育，落实民办学校与公办学校平等的法律地位，规范办学秩序。扩大教育开放，加强国际交流合作和引进优质教育资源。健全以政府投入为主、多渠道筹集教育经费的体制，２０１２年财政性教育经费支出占国内生产总

值比例达到 4 ％。

专栏 15　教育发展重点工程 新华社发



## 第二十九章 造就宏大的高素质人才队伍

大力实施人才强国战略,坚持服务发展、人才优先、以用为本、创新机制、高端引领、整体开发的指导方针,加强现代化建设需要的各类人才队伍建设,为加快转变经济发展方式、实现科学发展提供人才保证。

### 第一节 突出培养造就创新型科技人才

围绕提高科技创新能力、建设创新型国家，以高层次创新型科技人才为重点，造就一批世界水平的科学家、科技领军人才、工程师和高水平创新团队。创新教育方式，突出培养学生科学精神、创造性思维和创新能力。加强实践培养，依托国家重大科研项目和重大工程、重点学科和重点科研基地、国际学术交流合作项目，建设高层次创新型科技人才培养基地。注重培养一线创新人才和青年科技人才。积极引进和用好海外高层次创新创业人才。

### 第二节 促进各类人才队伍协调发展

大力开发装备制造、生物技术、新材料、航空航天、国际商务、能源资源、农业科技等经济领域和教育、文化、政法、医药卫生等社会领域急需紧缺专门人才，统筹推进党政、企业经营管理、专业技术、高技能、农村实用、社会工作等各类人才队伍建设，实现人才数量充足、结构合理、整体素质和创新能力显著提升，满足经济社会发展对人才的多样化需求。

### 第三节 营造优秀人才脱颖而出的环境

坚持党管人才原则。建立健全政府宏观管理、市场有效配置、单位自主用人、人才自主择业的体制机制。建立人才工作目标责任制。推动人才管理部门职能转变，规范行政行为，扩大和落实单位用人自主权。深化国有企业和事业单位人事制度改革。创新人才管理体制和人才培养开发、评价发现、选拔任用、流动配置和激励保障机制，营造尊重人才、有利于优秀人才脱颖而出和充分发挥作用的社会环境。改进人才服务和管理方式，落实国家重大人才政策，抓好重大人才工程，推动人才事业全面发展。

专栏 16 重大人才工程 新华社发



专栏16 重大人才工程

(1)创新人才推进计划；(2)青年英才开发计划；(3)企业经营管理人才素质提升工程；(4)高素质教育人才培养工程；(5)文化名家工程；(6)全民健康卫生人才保障工程；(7)海外高层次人才引进计划；(8)专业技术人才知识更新工程；(9)国家高技能人才振兴计划；(10)现代农业人才支撑计划；(11)边远贫困地区、边疆民族地区和革命老区人才支持计划；(12)高校毕业生基层培养计划。

# 第八篇 改善民生 建立健全基本公共服务体系

坚持民生优先，完善就业、收入分配、社会保障、医疗卫生、住房等保障和改善民生的制度安排，推进基本公共服务均等化，努力使发展成果惠及全体人民。

## 第三十章 提升基本公共服务水平

坚持以人为本、服务为先，履行政府公共服务职责，提高政府保障能力，逐步缩小城乡区域间基本公共服务差距。

### 第一节 建立健全基本公共服务体系

明确基本公共服务范围和标准，加快完善公共财政体制，保障基本公共服务支出，强化基本公共服务绩效考核和行政问责。合理划分中央与地方管理权限，健全地方政府为主、统一与分级相结合的公共服务管理体制。

专栏 17 "十二五"时期基本公共服务范围和重点　新华社发

## 专栏17 "十二五"时期基本公共服务范围和重点

**01 公共教育**

①九年义务教育免费,农村义务教育阶段寄宿制学校免住宿费,并为经济困难家庭寄宿生提供生活补助;②对农村学生、城镇经济困难家庭学生和涉农专业学生实行中等职业教育免费;③为经济困难家庭儿童、孤儿和残疾儿童接受学前教育提供补助。

**02 就业服务**

①为城乡劳动者免费提供就业信息、就业咨询、职业介绍和劳动调解仲裁;②为失业人员、农民工、残疾人、新成长劳动力免费提供基本职业技能培训;③为就业困难人员和零就业家庭提供就业援助。

**03 社会保障**

①城镇职工和居民享有基本养老保险,农村居民享有新型农村社会养老保险;②城镇职工和居民享有基本医疗保险,农村居民享有新型农村合作医疗;③城镇职工享有失业保险、工伤保险、生育保险;④为城乡困难群体提供最低生活保障、医疗救助、殡葬救助等服务;⑤为孤儿、残疾人、五保户、高龄老人等特殊群体提供福利服务。

**04 医疗卫生**

①免费提供居民健康档案、预防接种、传染病防治、儿童保健、孕产妇保健、老年人保健、健康教育、高血压等慢性病管理、重性精神疾病管理等基本公共卫生服务;②实施艾滋病防治、肺结核防治、农村妇女孕前和孕早期补服叶酸、农村妇女住院分娩补助、农村妇女宫颈癌乳腺癌检查、贫困人群白内障复明等重大公共卫生服务专项;③实施国家基本药物制度,基本药物均纳入基本医疗保障药物报销目录。

**05 人口计生**

①提供免费避孕药具、孕前优生健康检查、生殖健康技术和宣传教育等计划生育服务;②免费为符合条件的育龄群众提供再生育技术服务。

**06 住房保障**

①为城镇低收入住房困难家庭提供廉租住房;②为城镇中等偏下收入住房困难家庭提供公共租赁住房。

**07 公共文化**

①基层公共文化、体育设施免费开放;②农村广播电视全覆盖,为农村免费提供电影放映、送书送报送戏等公益性文化服务。

**08 基础设施**

①行政村通公路和客运班车,城市建成区公共交通全覆盖;②行政村通电,无电地区人口全部用上电;③邮政服务做到乡乡设所、村村通邮。

**09 环境保护**

①县县具备污水、垃圾无害化处理能力和环境监测评估能力;②保障城乡饮用水水源地安全。

### 第二节 创新公共服务供给方式

改革基本公共服务提供方式，引入竞争机制，扩大购买服务，实现提供主体和提供方式多元化。推进非基本公共服务市场化改革，放宽市场准入，鼓励社会资本以多种方式参与，增强多层次供给能力，满足群众多样化需求。

# 第三十一章 实施就业优先战略

坚持把促进就业放在经济社会发展的优先位置，健全劳动者自主择业、市场调节就业、政府促进就业相结合的机制，创造平等就业机会，提高就业质量，努力实现充分就业。

### 第一节 实施更加积极的就业政策

大力发展劳动密集型产业、服务业和小型微型企业，千方百计扩大就业创业规模。完善税费减免、岗位补贴、培训补贴、社会保险补贴、技能鉴定补贴等政策，促进高校毕业生、农村转移劳动力、城镇就业困难人员就业。完善和落实小额担保贷款、财政贴息、场地安排等鼓励自主创业政策，促进各类群体创业带动就业。建立健全政府投资和重大项目建设带动就业机制。完善就业援助政策，多渠道开发公益性岗位。鼓励开展对外劳务合作。

### 第二节 加强公共就业服务

健全统一规范灵活的人力资源市场，完善城乡公共就业服务体系，推动就业信息全国联网，为劳动者提供优质高效的就业服务。健全面向全体劳动者的职业培训制度，加强职业技能培训能力建设。对未能升学的应届初高中毕业生等新成长劳动力普遍实行劳动预备制培训。足额提取并合理使用企业职工教育培训经费，鼓励企业开展职工岗位技能培训。加强创业培训，将有创业愿望和培训需求的人员纳入培训范围。完善城镇调查失业率统计，健全失业监测预警制度，开展就业需求预测。

### 第三节 构建和谐劳动关系

健全协调劳动关系三方机制，发挥政府、工会和企业作用，努力形成企业和职工利益共享机制，建立规范有序、公正合理、互利共赢、和谐稳定的劳动关系。全面推行劳动合同制度，不断扩大集体合同覆盖面。全面推进劳动用工备案制度。规范劳务派遣用工。改善劳动条件，加快劳动标准体系建设，加强劳动定额标准管理。完善劳动争议处理机制，加强劳动争议调解仲裁，加大劳动保障监察执法力度，切实维护劳动者权益。

## 第三十二章 合理调整收入分配关系

坚持和完善按劳分配为主体、多种分配方式并存的分配制度,初次分配和再分配都要处理好效率和公平的关系,再分配更加注重公平,加快形成合理有序的收入分配格局,努力提高居民收入在国民收入分配中的比重,提高劳动报酬在初次分配中的比重,尽快扭转收入差距扩大趋势。

### 第一节 深化工资制度改革

按照市场机制调节、企业自主分配、平等协商确定、政府监督指导的原则,形成反映劳动力市场供求关系和企业经济效益的工资决定机制和增长机制。健全工资支付保障机制。完善最低工资和工资指导线制度,逐步提高最低工资标准,建立企业薪酬调查和信息发布制度,积极稳妥扩大工资集体协商覆盖范围。改革国有企业工资总额管理办法,加强对部分行业工资总额和工资水平的双重调控,缩小行业间工资水平差距。完善公务员工资制度。完善符合事业单位特点、体现岗位绩效和分级分类管理的事业单位收入分配制度。

### 第二节 健全资本、技术、管理等要素参与分配制度

完善公开、公平、公正的公共资源出让制度,建立国有土地、海域、森林、矿产等公共资源出让收益全民共享机制,出让收益主要用于公共服务支出。扩大国有资本收益上交范围,提高上交比例,统一纳入公共财政。完善股份制企业特别是上市公司分红制度。创造条件增加城乡居民财产性收入。保障技术成果在收入分配中的应得份额。建立健全根据经营管理绩效、风险和责任确定薪酬的制度,严格规范国有企业、国有控股金融机构经营管理人员特别是高层管理人员的收入,严格控制职务消费。

### 第三节 加快完善再分配调节机制

加快健全以税收、社会保障、转移支付为主要手段的再分配调节机制。合理调整个人所得税税基和税率结构,提高工资薪金所得费用扣除标准,减轻中低收入者税收负担,加大对高收入者的税收调节力度。逐步建立健全财产税制度。调整财政支出结构,提高公共服务支出比重,加大社会保障投入,较大幅度提高居民转移性收入。

### 第四节 整顿和规范收入分配秩序

健全法律法规,强化政府监管,加大执法力度,加快形成公开透明、公正合理的收入分

配秩序。保护合法收入,坚决取缔非法收入。清理规范国有企业和机关事业单位工资外收入、非货币性福利等。加强政府非税收入管理,清理规范各种行政事业性收费和政府性基金。加快收入信息监测系统建设。建立收入分配统筹协调机制。

# 第三十三章 健全覆盖城乡居民的社会保障体系

坚持广覆盖、保基本、多层次、可持续方针,加快推进覆盖城乡居民的社会保障体系建设,稳步提高保障水平。

## 第一节 加快完善社会保险制度

实现新型农村社会养老保险制度全覆盖。完善实施城镇职工和居民养老保险制度,全面落实城镇职工基本养老保险省级统筹,实现基础养老金全国统筹,切实做好城镇职工基本养老保险关系转移接续工作。逐步推进城乡养老保障制度有效衔接。推动机关事业单位养老保险制度改革。发展企业年金和职业年金。扩大工伤保险覆盖面,提高保障水平,健全预防、补偿、康复相结合的工伤保险制度。完善失业、生育保险制度。发挥商业保险补充性作用。继续通过划拨国有资产、扩大彩票发行等渠道充实全国社会保障基金,积极稳妥推进养老基金投资运营。

## 第二节 加强社会救助体系建设

完善城乡最低生活保障制度,规范管理,分类施保,实现应保尽保。健全低保标准动态调整机制,合理提高低保标准和补助水平。加强城乡低保与最低工资、失业保险和扶贫开发等政策的衔接。提高农村五保供养水平。做好自然灾害救助工作。完善临时救助制度,保障低保边缘群体的基本生活。

## 第三节 积极发展社会福利和慈善事业

以扶老、助残、救孤、济困为重点,逐步拓展社会福利的保障范围,推动社会福利由补缺型向适度普惠型转变,逐步提高国民福利水平。坚持家庭、社区和福利机构相结合,逐步健全社会福利服务体系,推动社会福利服务社会化。加强残疾人、孤儿福利服务。加强优抚安置工作。加快发展慈善事业,增强全社会慈善意识,积极培育慈善组织,落实并完善公益性捐赠的税收优惠政策。

## 第三十四章 完善基本医疗卫生制度

按照保基本、强基层、建机制的要求，增加财政投入，深化医药卫生体制改革，建立健全基本医疗卫生制度，加快医疗卫生事业发展，优先满足群众基本医疗卫生需求。

### 第一节 加强公共卫生服务体系建设

完善重大疾病防控等专业公共卫生服务网络。逐步提高人均基本公共卫生服务经费标准，扩大国家基本公共卫生服务项目，实施重大公共卫生服务专项，积极预防重大传染病、慢性病、职业病、地方病和精神疾病，提高重大突发公共卫生事件处置能力。逐步建立农村医疗急救网络。普及健康教育，实施国民健康行动计划。全面推行公共场所禁烟。７０％以上的城乡居民建立电子健康档案。孕产妇死亡率降到２２／１０万，婴儿死亡率降到１２‰。

### 第二节 加强城乡医疗服务体系建设

加强以县医院为龙头、乡镇卫生院和村卫生室为基础的农村三级医疗卫生服务网络建设，完善以社区卫生服务为基础的新型城市医疗卫生服务体系，新增医疗卫生资源重点向农村和城市社区倾斜。大力推进基层医疗卫生机构综合改革，建立多渠道补偿机制，形成新的运行机制。加强以全科医生为重点的基层医疗卫生队伍建设，完善鼓励全科医生长期在基层服务政策，每万人口全科医师数达到２人。加快推行分级诊疗、双向转诊制度，形成各类城市医院和基层医疗机构分工协作格局。完善区域卫生规划，鼓励和引导社会资本举办医疗机构，放宽社会资本和外资举办医疗机构的准入范围，形成多元办医格局。

### 第三节 健全医疗保障体系

健全覆盖城乡居民的基本医疗保障体系，进一步完善城镇职工基本医疗保险、城镇居民基本医疗保险、新型农村合作医疗和城乡医疗救助制度。逐步提高城镇居民医保和新农合人均筹资标准及保障水平并缩小差距。提高城镇职工医保、城镇居民医保、新农合最高支付限额和住院费用支付比例，全面推进门诊统筹。做好各项制度间的衔接，整合经办资源，逐步提高统筹层次，加快实现医保关系转移接续和医疗费用异地就医结算。全面推进基本医疗费用即时结算，改革付费方式。积极发展商业健康保险，完善补充医疗保险制度。

### 第四节 完善药品供应保障体系

建立和完善以国家基本药物制度为基础的药品供应保障体系。基层医疗卫生机构全面实

施国家基本药物制度，其他医疗卫生机构逐步实现全面配备、优先使用基本药物。建立基本药物目录动态调整机制，完善价格形成机制和动态调整机制。提高基本药物实际报销水平。加强药品生产管理，整顿药品流通秩序，规范药品集中采购和医疗机构合理用药。

### 第五节 积极稳妥推进公立医院改革

坚持公立医院的公益性质，积极探索政事分开、管办分开、医药分开、营利性和非营利性分开的有效形式。推进现代医院管理制度，建立科学合理的用人机制和分配制度。改革公立医院补偿机制，积极推进支付方式改革。以病人为中心大力改进公立医院内部管理，优化服务流程，规范诊疗行为，改善医患关系，方便群众就医。推进注册医师多点执业，建立住院医师规范化培训制度。注重调动医务人员积极性。

### 第六节 支持中医药事业发展

坚持中西医并重，发展中医医疗和预防保健服务，推进中医药继承与创新，重视民族医药发展。发展中医药教育，加强中医医疗机构和中医药人才队伍建设。加强中药资源保护、研究开发和合理利用，推进质量认证和标准建设。医疗保障政策和基本药物政策要鼓励中医药服务的提供和使用。

专栏 18 医疗卫生重点工程　新华社发



专栏18　医疗卫生重点工程

**01 基本医疗保障体系**
提高城乡三项基本医疗保险参保率，提高筹资和保障能力，实现全民享有基本医疗保障。

**02 公共卫生服务体系**
改善卫生监督、精神卫生、农村应急救治等专业卫生服务机构基础设施条件。

**03 医疗服务体系**
推进基层医疗卫生机构标准化建设，提高县级医院（含中医院）服务能力，加强省级妇儿专科医院、边远地区地市级综合医院、县级中医医院建设。

**04 全科医生培养基地**
建成一批标准化的全科医生培养基地，通过转岗和规范化培训途径培养15万名全科医生。

**05 医药卫生信息化**
推进基层医疗卫生信息化建设。建设三级医院与县级医院远程医疗系统，加强公立医院信息化建设。

## 第三十五章 提高住房保障水平

坚持政府调控和市场调节相结合,加快完善符合国情的住房体制机制和政策体系,逐步形成总量基本平衡、结构基本合理、房价与消费能力基本适应的住房供需格局,实现广大群众住有所居。

### 第一节 健全住房供应体系

立足保障基本需求、引导合理消费,加快构建以政府为主提供基本保障、以市场为主满足多层次需求的住房供应体系。对城镇低收入住房困难家庭,实行廉租住房制度。对中等偏下收入住房困难家庭,实行公共租赁住房保障。对中高收入家庭,实行租赁与购买商品住房相结合的制度。建立健全经济、适用、环保和节约资源的住房标准体系,倡导符合国情的住房消费模式。

### 第二节 加大保障性住房供给

强化各级政府责任,加大保障性安居工程建设力度,基本解决保障性住房供应不足的问题。多渠道筹集廉租房房源,完善租赁补贴制度。重点发展公共租赁住房,逐步使其成为保障性住房的主体。加快各类棚户区改造,规范发展经济适用住房。建立稳定投入机制,加大财政资金、住房公积金贷款、银行贷款的支持力度,引导社会力量参与保障性住房建设运营。加强保障性住房管理,制定公平合理、公开透明的保障性住房配租政策和监管程序,严格规范准入、退出管理和租费标准。

### 第三节 改善房地产市场调控

进一步落实地方政府责任和问责机制,把保障基本住房、稳定房价和加强市场监管纳入各地经济社会发展的工作目标,由省级人民政府负总责,市、县级人民政府负直接责任。完善土地供应政策,增加住房用地供应总量,优先安排保障性住房用地,有效扩大普通商品住房供给。健全差别化住房信贷、税收政策,合理引导自住和改善性住房需求,有效遏制投机投资性购房。加快制定基本住房保障法,修订完善城市房地产管理法等相关法律法规。完善住房公积金制度,加强管理和扩大覆盖范围。加强市场监管,规范房地产市场秩序。加快住房信息系统建设,完善信息发布制度。

## 第三十六章 全面做好人口工作

控制人口总量，提高人口素质，优化人口结构，促进人口长期均衡发展。

### 第一节 加强计划生育服务

坚持计划生育基本国策，逐步完善政策。完善计划生育家庭优先优惠政策体系，提高家庭发展能力。提高计划生育家庭奖励扶助金、"少生快富"工程奖励金和特别扶助金的标准，扩大范围并建立动态调整机制。继续推进人口和计划生育服务体系建设，拓展服务范围。综合治理出生人口性别比偏高问题。加大出生缺陷预防力度，做好健康教育、优生咨询、高危人群指导、孕前筛查、营养素补充等服务工作，降低出生缺陷发生率和农村5岁以下儿童生长迟缓率。加强流动人口计划生育服务管理。

### 第二节 促进妇女全面发展

落实男女平等基本国策，实施妇女发展纲要，全面开发妇女人力资源，切实保障妇女合法权益，促进妇女就业创业，提高妇女参与经济发展和社会管理能力。加强妇女劳动保护、社会福利、卫生保健、扶贫减贫及法律援助等工作，完善性别统计制度，改善妇女发展环境。严厉打击暴力侵害妇女、拐卖妇女等违法犯罪行为。

### 第三节 保障儿童优先发展

坚持儿童优先原则，实施儿童发展纲要，依法保障儿童生存权、发展权、受保护权和参与权。改善儿童成长环境，提升儿童福利水平，消除对女童的歧视，促进儿童身心健康发展。加强婴幼儿早期启蒙教育和独生子女社会行为教育。切实解决留守儿童教育、孤残儿童、艾滋病孤儿和流浪未成年人救助等问题。严厉打击拐卖儿童、弃婴等违法犯罪行为。

### 第四节 积极应对人口老龄化

建立以居家为基础、社区为依托、机构为支撑的养老服务体系。加快发展社会养老服务，培育壮大老龄事业和产业，加强公益性养老服务设施建设，鼓励社会资本兴办具有护理功能的养老服务机构，每千名老人拥有养老床位数达到３０张。拓展养老服务领域，实现养老服务从基本生活照料向医疗健康、辅具配置、精神慰藉、法律服务、紧急援助等方面延伸。增加社区老年活动场所和便利化设施。开发利用老年人力资源。

第五节 加快残疾人事业发展

健全残疾人社会保障体系和服务体系，为残疾人生活和发展提供稳定的制度性保障。实施重点康复和托养工程、0－6岁残疾儿童抢救性康复工程和"阳光家园"计划，推进残疾人"人人享有康复服务"。大力开展残疾人就业服务和职业培训。加大对农村残疾人生产扶助和生活救助力度。丰富残疾人文化体育生活。构建辅助器具适配体系，推进无障碍建设。制定和实施国家残疾预防行动计划，有效控制残疾的发生和发展。

专栏 19 改善民生行动计划　新华社发

## 专栏 19　改善民生行动计划

**01　扩大城乡就业规模**

城镇年均新增就业 900 万人，年均转移农业劳动力 800 万人。企业劳动合同签订率达到 90%，集体合同签订率达到 80%。

**02　提高最低工资标准**

最低工资标准年均增长 13% 以上。绝大多数地区最低工资标准达到当地城镇从业人员平均工资的 40% 以上。

**03　提高养老保障水平**

实现城镇职工基础养老金全国统筹。城镇参加基本养老保险人数新增 1 亿人。城镇职工基本养老金稳定增长，城镇 60 岁以上非就业居民享受基础养老金待遇。实现新型农村社会养老保险制度全覆盖，提高基础养老金水平。

**04　提高医疗保障水平**

城乡三项基本医疗保险参保人数新增 6000 万以上。财政对城镇居民基本医疗保险和新型农村合作医疗的补助标准逐步提高，政策范围内的医保基金支付水平提高到 70% 以上。

**05　提高城乡低保标准**

城乡居民最低生活保障标准年均增长 10% 以上。

**06　减少农村贫困人口数量**

加大扶贫投入，逐步提高扶贫标准，显著减少贫困人口数量。

**07　减轻居民税收负担**

"十二五"前期提高个人所得税工资薪金所得费用扣除标准，合理调整个人所得税税率结构，中后期建立健全综合与分类相结合的个人所得税制度。

**08　实施城镇保障性安居工程**

建设城镇保障性住房和棚户区改造住房 3600 万套（户），全国保障性住房覆盖面达到 20% 左右。土地出让净收益用于保障性住房建设、各类棚户区改造的比例不低于 10%。

**09　完善就业和社会保障服务体系**

加强公共就业、社会保险、劳动监察和调解仲裁等服务设施建设。推行社会保障一卡通，全国统一的社会保障卡发放数量达到 8 亿张，覆盖 60% 人口。

**10　增加国有资本收益用于民生支出**

扩大国有资本收益上交范围，逐步提高国有资本收益上交比例，新增部分主要用于社会保障等民生支出。

# 第九篇　标本兼治　加强和创新社会管理

适应经济体制深刻变革、社会结构深刻变动、利益格局深刻调整、思想观念深刻变化的新形势，创新社会管理体制机制，加强社会管理能力建设，建立健全中国特色社会主义社会

管理体系，确保社会既充满活力又和谐稳定。

# 第三十七章 创新社会管理体制

坚持多方参与、共同治理，统筹兼顾、动态协调的原则，完善社会管理格局，创新社会管理机制，形成社会管理和服务合力。

## 第一节 健全社会管理格局

按照健全党委领导、政府负责、社会协同、公众参与的社会管理格局的要求，加强社会管理法律、体制、能力建设。坚持党委的领导核心作用，总揽全局、把握方向、整合力量、统筹各方，提高引领社会、组织社会、管理社会、服务社会的能力。发挥政府的主导作用，强化社会管理和公共服务职能，建设服务型政府，提高服务型管理能力。发挥人民团体、基层自治组织、各类社会组织和企业事业单位的协同作用，推进社会管理的规范化、专业化、社会化和法制化。广泛动员和组织群众依法有序参与社会管理，培养公民意识，履行公民义务，实现自我管理、自我服务、自我发展。

## 第二节 创新社会管理机制

加快构建源头治理、动态管理和应急处置相结合的社会管理机制。加强源头治理，更加注重民生和制度建设，坚持科学民主依法决策，防止和减少社会问题的产生；加强动态管理，更加注重平等沟通和协商，解决群众合法合理诉求，及时化解社会矛盾；加强应急处置，更加注重应急能力建设，有效应对和妥善处置突发公共事件，最大限度地增加和谐因素，化解消极因素，激发社会活力。

# 第三十八章 强化城乡社区自治和服务功能

全面开展城市社区建设，积极推进农村社区建设，健全新型社区管理和服务体制，把社区建设成为管理有序、服务完善、文明祥和的社会生活共同体。

## 第一节 完善社区治理结构

健全社区党组织领导的基层群众自治制度，推进社区居民依法民主管理社区公共事务和公益事业，实现政府行政管理与基层群众自治有效衔接和良性互动。完善社区居民委员会组织体系，加强城乡结合部、城中村、流动人口聚居地等的社区居民委员会建设。积极培育社

区服务性、公益性、互助性社会组织，发挥业主委员会、物业管理机构、驻区单位积极作用，引导各类社会组织、志愿者参与社区管理和服务。鼓励因地制宜创新社区管理和服务模式。

### 第二节 构建社区管理和服务平台

健全基层管理和服务体系，推动管理重心下移，延伸基本公共服务职能。规范发展社区服务站等专业服务机构，有效承接基层政府委托事项。以居民需求为导向，整合人口、就业、社保、民政、卫生、文化以及综治、维稳、信访等管理职能和服务资源，加快社区信息化建设，构建社区综合管理和服务平台。完善优秀人才服务社区激励机制，推进社区工作人员专业化、职业化。加快建立政府投入与社会投入相结合的经费保障机制。加强流动人口服务管理。

专栏 20 城乡社区服务能力提升计划　新华社发



专栏 20　城乡社区服务能力提升计划

01　社区综合服务平台建设
实施社区服务体系建设工程，因地制宜建设街道（乡镇）社区服务中心和城乡社区服务站，改善公共设施和服务用房。

02　社区信息化建设
建设集行政管理、社会事务、便民服务于一体的社区信息服务网络。社会保障卡信息服务落到城乡社区。

03　社区服务人才队伍建设
实施50万大学生服务城乡社区计划。社区服务人员普遍接受一次岗位培训。注册社区志愿者占居民人口10%以上。

# 第三十九章 加强社会组织建设

坚持培育发展和管理监督并重，推动社会组织健康有序发展，发挥其提供服务、反映诉求、规范行为的作用。

### 第一节 促进社会组织发展

改进社会组织管理，建立健全统一登记、各司其职、协调配合、分级负责、依法监管的社会组织管理体制。重点培育、优先发展经济类、公益慈善类、民办非企业单位和城乡社区社会组织。推动行业协会、商会改革和发展，强化行业自律，发挥沟通企业与政府的作用。

完善扶持政策,推动政府部门向社会组织转移职能,向社会组织开放更多的公共资源和领域,扩大税收优惠种类和范围。

### 第二节 加强社会组织监管

完善法律监督、政府监督、社会监督、自我监督相结合的监管体系。健全法律法规,严格依法监管。建立社会组织监管机制和管理信息平台,制定社会组织行为规范和活动准则,提高政府监管效力。实行社会组织信息公开和评估制度,完善失信惩罚机制,强化社会监管。引导社会组织完善内部治理结构,提高自律性。

## 第四十章 完善维护群众权益机制

加强和完善党和政府主导的维护群众权益机制,形成科学有效的利益协调机制、诉求表达机制、矛盾调处机制和权益保障机制,切实维护群众合法权益。

### 第一节 拓宽社情民意表达渠道

完善公共决策的社会公示制度、公众听证制度和专家咨询论证制度,扩大公众参与程度。完善信访工作机制,注重民意收集与信息反馈,落实领导干部接待群众来访、处理群众信访制度。发挥人民团体、行业协会、大众传媒等的社会利益表达功能,发挥互联网通达社情民意新渠道作用,积极主动回应社会关切。

### 第二节 完善社会矛盾调解机制

完善化解社会矛盾的领导协调、排查预警、疏导转化、调解处置机制。加强人民调解、行政调解、司法调解联动,整合各方面力量,有效防范和化解劳动争议、征地拆迁、环境污染、食品药品安全、企业重组和破产等引发的社会矛盾。建立重大工程项目建设和重大政策制定的社会稳定风险评估机制。完善群众工作制度,依靠基层党政组织、行业管理组织、群众自治组织,充分发挥工会、共青团、妇联的作用,共同维护群众权益,兼顾好各方面群众关切,积极化解社会矛盾。

## 第四十一章 加强公共安全体系建设

适应公共安全形势变化的新特点,推动建立主动防控与应急处置相结合、传统方法与现代手段相结合的公共安全体系。

### 第一节 保障食品药品安全

制定和完善食品药品安全标准。建立食品药品质量追溯制度，形成来源可追溯、去向可查证、责任可追究的安全责任链。健全食品药品安全应急体系，强化快速通报和快速反应机制。加强食品药品安全风险监测评估预警和监管执法，提高监管的有效性和公信力。继续实施食品药品监管基础设施建设工程。加强检验检测、认证检查和不良反应监测等食品药品安全技术支撑能力建设。加强基层快速检测能力建设，整合社会检测资源，构建社会公共检测服务平台。强化基本药物监管，确保用药安全。

### 第二节 严格安全生产管理

落实企业安全生产责任制，建立健全企业安全生产预防机制。加强安全监管监察能力建设，严格安全目标考核与责任追究。健全安全技术标准体系，严格安全许可。实行重大隐患治理逐级挂牌督办和整改效果评价制度，深化煤矿、交通运输等领域安全专项治理。健全协调联动机制，严厉打击非法违法生产经营。防范治理粉尘与高毒物质等重大职业危害。开展安全科技攻关和装备研发，规范发展安全专业技术服务机构，加强对中小企业安全技术援助和服务。加强安全宣传教育与培训。单位国内生产总值生产安全事故死亡率下降３６％，工矿商贸就业人员生产安全事故死亡率下降２６％。

### 第三节 健全突发事件应急体系

坚持预防与应急并重、常态与非常态结合的原则，建立健全统一指挥、结构合理、反应灵敏、保障有力、运转高效的国家突发事件应急体系，提高危机管理和风险管理能力。健全应急管理组织体系，完善应急预案体系，强化基层应急管理能力。加强应急队伍建设，建立以专业队伍为基本力量，以公安、武警、军队为骨干和突击力量，以专家队伍、企事业单位专兼职队伍和志愿者队伍为辅助力量的应急队伍体系，提高生命救治能力。建立健全应急物资储备体系，加强综合管理，优化布局和方式，统筹安排实物储备和能力储备。建立健全应急教育培训体系。完善特大灾害国际救援机制。

### 第四节 完善社会治安防控体系

坚持打防结合、预防为主，专群结合、依靠群众的方针，完善社会治安防控体系，加强城乡社区警务、群防群治等基层基础建设，做好刑罚执行和教育矫治工作。完善和规范安全技术防范工作，广泛开展平安创建活动，加强社会治安综合治理。加强公共安全设施建设。

建设国家人口基础信息库。加强特殊人群安置、救助、帮教、管理和医疗工作，加大社会治安薄弱环节、重点地区整治力度。加强情报信息、防范控制和快速处置能力，增强公共安全和社会治安保障能力。加强刑事犯罪预警工作，严密防范、依法打击各种违法犯罪活动，切实保障人民生命财产安全。严格公正廉洁执法，提高执法能力、执法水平和执法公信力。

# 第十篇 传承创新 推动文化大发展大繁荣

坚持社会主义先进文化前进方向，弘扬中华文化，建设和谐文化，发展文化事业和文化产业，满足人民群众不断增长的精神文化需求，充分发挥文化引导社会、教育人民、推动发展的功能，增强民族凝聚力和创造力。

## 第四十二章 提高全民族文明素质

全面持续有效地提高全民族文明素质，为现代化建设提供有力的思想保证、精神动力和智力支持。

### 第一节 建设社会主义核心价值体系

加强走中国特色社会主义道路和实现中华民族伟大复兴的理想信念教育，大力弘扬以爱国主义为核心的民族精神和以改革创新为核心的时代精神，努力践行社会主义荣辱观。倡导爱国守法、敬业诚信和勤俭节约，构建传承中华传统美德、符合社会主义精神文明要求、适应社会主义市场经济的道德和行为规范。深入推进社会公德、职业道德、家庭美德、个人品德建设。

### 第二节 拓展群众性精神文明创建活动

弘扬科学精神，加强人文关怀，注重心理疏导，培育奋发进取、理性平和、开放包容的社会心态。提倡修身律己、尊老爱幼、勤勉做事、平实做人，推动形成我为人人、人人为我的社会氛围。强化职业操守，支持创新创业，鼓励劳动致富，发扬团队精神。广泛开展志愿服务，建立完善社会志愿服务体系。

### 第三节 营造良好的社会文化环境

保护青少年身心健康，为青少年营造健康成长的空间。加强青少年文化活动场所建设，

创造出更多青少年喜闻乐见、益智益德的文化作品，广泛开展面向青少年的各类文化体育活动。积极倡导企业文化建设，深化文明城市创建活动，推进农村乡风文明建设。切实加强文化市场监管，有效遏制违法有害信息传播。综合运用经济、教育、法律、行政、舆论手段，引导人们知荣辱、讲正气、尽义务，形成扶正祛邪、惩恶扬善的社会风气。

# 第四十三章 推进文化创新

适应群众文化需求新变化新要求，弘扬主旋律，提倡多样化，使精神文化产品和社会文化生活更加丰富多彩。

### 第一节 创新文化内容形式

立足当代中国实践，传承优秀民族文化，借鉴世界文明成果，反映人民主体地位和现实生活，创作生产更多思想深刻、艺术精湛、群众喜闻乐见的文化精品，扶持体现民族特色和国家水准的重大文化项目，研究设立国家艺术基金，提高文化产品质量。推进学科体系、学术观点、科研方法创新，大力推进哲学社会科学创新体系建设，实施哲学社会科学创新工程，繁荣发展哲学社会科学。

### 第二节 深化文化体制机制改革

加快推进公益性文化事业单位改革，探索建立事业单位法人治理结构，创新公共文化服务运行机制。深入推进经营性文化单位转企改制，建立现代企业制度。完善统一、开放、竞争、有序的现代文化市场体系，促进文化产品和要素在更大范围内合理流动。加快推进文化管理体制改革。建立健全符合文化企业特点的国有文化资产管理体制和运行机制。加快完善版权法律政策体系，提高版权执法监管能力，严厉打击各类侵权盗版行为。

# 第四十四章 繁荣发展文化事业和文化产业

坚持一手抓公益性文化事业、一手抓经营性文化产业，始终把社会效益放在首位，实现经济效益和社会效益有机统一。

### 第一节 大力发展文化事业

增强公共文化产品和服务供给。公共博物馆、图书馆、文化馆、纪念馆、美术馆等公共文化设施免费向社会开放。鼓励扶持少数民族文化产品创作生产。注重满足残疾人等特殊人

群的公共文化服务需求。建立健全公共文化服务体系。以农村基层和中西部地区为重点,继续实施文化惠民工程。改善农村文化基础设施,支持老少边穷地区建设和改造文化服务网络。完善城市社区文化设施,促进基层文化资源整合和综合利用。广泛开展群众性文化活动。加强重要新闻媒体建设,重视互联网等新兴媒体建设、运用、管理,把握正确舆论导向,提高传播能力。加强文物、历史文化名城名镇名村、非物质文化遗产和自然遗产保护,拓展文化遗产传承利用途径。依法推进语言文字工作。建立国家文化艺术荣誉制度。

### 第二节 加快发展文化产业

推动文化产业成为国民经济支柱性产业,增强文化产业整体实力和竞争力。实施重大文化产业项目带动战略,加强文化产业基地和区域性特色文化产业群建设。推进文化产业结构调整,大力发展文化创意、影视制作、出版发行、印刷复制、演艺娱乐、数字内容和动漫等重点文化产业,培育骨干企业,扶持中小企业,鼓励文化企业跨地域、跨行业、跨所有制经营和重组,提高文化产业规模化、集约化、专业化水平。推进文化产业转型升级,推进文化科技创新,研发制定文化产业技术标准,提高技术装备水平,改造提升传统产业,培育发展新兴文化产业。加快中西部地区中小城市影院建设。鼓励和支持非公有制经济以多种形式进入文化产业领域,逐步形成以公有制为主体、多种所有制共同发展的产业格局。构建以优秀民族文化为主体、吸收外来有益文化的对外开放格局,积极开拓国际文化市场,创新文化"走出去"模式,增强中华文化国际竞争力和影响力,提升国家软实力。

专栏 21  文化事业重点工程  新华社发

# 第十一篇 改革攻坚 完善社会主义市场经济体制

以更大决心和勇气全面推进各领域改革，更加重视改革顶层设计和总体规划，明确改革优先顺序和重点任务，深化综合配套改革试验，进一步调动各方面积极性，尊重群众首创精神，大力推进经济体制改革，积极稳妥推进政治体制改革，加快推进文化体制、社会体制改革，在重要领域和关键环节取得突破性进展。

## 第四十五章 坚持和完善基本经济制度

坚持公有制为主体、多种所有制经济共同发展的基本经济制度，营造各种所有制经济依法平等使用生产要素、公平参与市场竞争、同等受到法律保护的体制环境。

### 第一节 深化国有企业改革

推进国有经济战略性调整，健全国有资本有进有退、合理流动机制，促进国有资本向关系国家安全和国民经济命脉的重要行业和关键领域集中。推动具备条件的国有大型企业实现整体上市，不具备整体上市条件的国有大型企业要加快股权多元化改革，有必要保持国有独资的国有大型企业要加快公司制改革,完善企业法人治理结构。推进铁路、盐业等体制改革,

实现政企分开、政资分开。深化电力体制改革，稳步开展输配分开试点。继续推进电信、石油、民航和市政公用事业改革。稳步推进国有林场和国有林区管理体制改革。深化垄断行业改革，进一步放宽市场准入，形成有效竞争的市场格局。

### 第二节 完善国有资产管理体制

坚持政府公共管理职能和国有资产出资人职能分开，完善经营性国有资产管理和国有企业监管体制机制。探索实行公益性和竞争性国有企业分类管理。健全覆盖全部国有企业、分级管理的国有资本经营预算和收益分享制度，合理分配和使用国有资本收益。完善国有金融资产、行政事业单位资产和自然资源资产监管体制。

### 第三节 支持和引导非公有制经济发展

消除制约非公有制经济发展的制度性障碍，全面落实促进非公有制经济发展的政策措施。鼓励和引导民间资本进入法律法规未明文禁止准入的行业和领域，市场准入标准和优惠扶持政策要公开透明，不得对民间资本单独设置附加条件。鼓励和引导非公有制企业通过参股、控股、并购等多种形式，参与国有企业改制重组。完善鼓励非公有制经济发展的法律制度，优化外部环境，加强对非公有制企业的服务、指导和规范管理。改善对民间投资的金融服务。切实保护民间投资的合法权益。

## 第四十六章 推进行政体制改革

按照转变职能、理顺关系、优化结构、提高效能的要求，加快建立法治政府和服务型政府。

### 第一节 加快转变政府职能

健全政府职责体系，提高经济调节和市场监管水平，强化社会管理和公共服务职能。加快推进政企分开、政资分开、政事分开、政府与市场中介组织分开，调整和规范政府管理的事项，深化行政审批制度改革，减少政府对微观经济活动的干预。继续优化政府结构、行政层级、职能责任，坚定推进大部门制改革，着力解决机构重叠、职责交叉、政出多门问题。在有条件的地方探索省直接管理县（市）的体制。完善公务员制度。深化各级政府机关事务管理体制改革，降低行政成本。

### 第二节 完善科学民主决策机制

完善重大事项决策机制，建立健全公众参与、专家咨询、风险评估、合法性审查和集体讨论决定的决策程序，实行科学决策、民主决策和依法决策。对涉及经济社会发展全局的重大事项，要广泛征询意见，充分协商和协调。对专业性、技术性较强的重大事项，要认真进行专家论证、技术咨询、决策评估。对同群众利益密切相关的重大事项，要实行公示、听证等制度。严格依法行政，健全行政执法体制机制，完善行政复议和行政诉讼制度。

### 第三节 推行政府绩效管理和行政问责制度

建立科学合理的政府绩效评估指标体系和评估机制，实行内部考核与公众评议、专家评价相结合的方法，发挥绩效评估对推动科学发展的导向和激励作用。健全对行政权力的监督制度。强化审计监督。推行行政问责制，明确问责范围，规范问责程序，健全责任追究制度和纠错改正机制，提高政府执行力和公信力。

### 第四节 加快推进事业单位分类改革

按照政事分开、事企分开、管办分开、营利性与非营利性分开的要求，积极稳妥推进科技、教育、文化、卫生、体育等事业单位分类改革。严格认定标准和范围，对主要承担行政职能的逐步将其行政职能划归行政机构或转为行政机构。规范转制程序，完善过渡政策，将主要从事生产经营活动的逐步转为企业，建立健全法人治理结构。继续保留的事业单位强化公益属性，推进人事管理、国有资产和财政支持方式等方面的改革。

## 第四十七章 加快财税体制改革

理顺各级政府间财政分配关系，健全公共财政体系，完善预算制度和税收制度，积极构建有利于转变经济发展方式的财税体制。

### 第一节 深化财政体制改革

按照财力与事权相匹配的要求，在合理界定事权基础上，进一步理顺各级政府间财政分配关系，完善分税制。围绕推进基本公共服务均等化和主体功能区建设，完善转移支付制度，增加一般性特别是均衡性转移支付规模和比例，调减和规范专项转移支付。推进省以下财政体制改革，稳步推进省直管县财政管理制度改革，加强县级政府提供基本公共服务的财力保障。建立健全地方政府债务管理体系，探索建立地方政府发行债券制度。

### 第二节 完善预算管理制度

实行全口径预算管理，完善公共财政预算，细化政府性基金预算，健全国有资本经营预算，在完善社会保险基金预算基础上研究编制社会保障预算，建立健全有机衔接的政府预算体系。完善预算编制和执行管理制度，强化预算支出约束和预算执行监督，健全预算公开机制，增强预算透明度。深化部门预算、国库集中收付、政府采购及国债管理制度改革。进一步推进政府会计改革，逐步建立政府财务报告制度。

### 第三节 改革和完善税收制度

按照优化税制结构、公平税收负担、规范分配关系、完善税权配置的原则，健全税制体系，加强税收法制建设。扩大增值税征收范围，相应调减营业税等税收。合理调整消费税征收范围、税率结构和征税环节。逐步建立健全综合与分类相结合的个人所得税制度，完善个人所得税征管机制。继续推进费改税，全面推进资源税和耕地占用税改革。研究推进房地产税改革。逐步健全地方税体系，赋予省级政府适当税政管理权限。

## 第四十八章 深化金融体制改革

全面推动金融改革、开放和发展，构建组织多元、服务高效、监管审慎、风险可控的金融体系，不断增强金融市场功能，更好地为加快转变经济发展方式服务。

### 第一节 深化金融机构改革

继续深化国家控股的大型金融机构改革，完善现代金融企业制度，强化内部治理和风险管理，提高创新发展能力和国际竞争力。继续深化国家开发银行改革，推动中国进出口银行和中国出口信用保险公司改革，研究推动中国农业发展银行改革，继续推动中国邮政储蓄银行改革。建立存款保险制度。促进证券期货经营机构规范发展。强化保险机构的创新服务能力和风险内控能力，加强保险业偿付能力监管，深化保险资金运用管理体制改革，稳步提高资金运作水平。促进金融资产管理公司商业化转型。积极稳妥推进金融业综合经营试点。

### 第二节 加快多层次金融市场体系建设

大力发展金融市场，继续鼓励金融创新，显著提高直接融资比重。拓宽货币市场广度和深度，增强流动性管理功能。深化股票发审制度市场化改革，规范发展主板和中小板市场，推进创业板市场建设，扩大代办股份转让系统试点，加快发展场外交易市场，探索建立国际

板市场。积极发展债券市场，完善发行管理体制，推进债券品种创新和多样化，稳步推进资产证券化。推进期货和金融衍生品市场发展。促进创业投资和股权投资健康发展，规范发展私募基金市场。加强市场基础性制度建设，完善市场法律法规。继续推动资产管理、外汇、黄金市场发展。

### 第三节 完善金融调控机制

优化货币政策目标体系，健全货币政策决策机制，改善货币政策的传导机制和环境。构建逆周期的金融宏观审慎管理制度框架，建立健全系统性金融风险防范预警体系、评估体系和处置机制。稳步推进利率市场化改革，加强金融市场基准利率体系建设。完善以市场供求为基础的有管理的浮动汇率制度，推进外汇管理体制改革，扩大人民币跨境使用，逐步实现人民币资本项目可兑换。改进外汇储备经营管理，拓宽使用渠道，提高收益水平。

### 第四节 加强金融监管

完善金融监管体制机制，加强金融监管协调，健全金融监管机构之间以及与宏观调控部门之间的协调机制。完善地方政府金融管理体制，强化地方政府对地方中小金融机构的风险处置责任。制定跨行业、跨市场金融监管规则，强化对系统重要性金融机构的监管。完善金融法律法规。加快社会信用体系建设，规范发展信用评级机构。参与国际金融准则修订，完善我国金融业稳健标准。加强与国际组织和境外监管机构的国际合作。维护国家金融稳定和安全。

# 第四十九章 深化资源性产品价格和环保收费改革

建立健全能够灵活反映市场供求关系、资源稀缺程度和环境损害成本的资源性产品价格形成机制，促进结构调整、资源节约和环境保护。

### 第一节 完善资源性产品价格形成机制

继续推进水价改革，完善水资源费、水利工程供水价格和城市供水价格政策。积极推进电价改革，推行大用户电力直接交易和竞价上网试点，完善输配电价形成机制，改革销售电价分类结构。积极推行居民用电、用水阶梯价格制度。进一步完善成品油价格形成机制，积极推进市场化改革。理顺天然气与可替代能源比价关系。按照价、税、费、租联动机制，适当提高资源税税负，完善计征方式，将重要资源产品由从量定额征收改为从价定率征收，促

进资源合理开发利用。

### 第二节 推进环保收费制度改革

建立健全污染者付费制度，提高排污费征收率。改革垃圾处理费征收方式，适度提高垃圾处理费标准和财政补贴水平。完善污水处理收费制度。积极推进环境税费改革，选择防治任务繁重、技术标准成熟的税目开征环境保护税，逐步扩大征收范围。

### 第三节 建立健全资源环境产权交易机制

引入市场机制，建立健全矿业权和排污权有偿使用和交易制度。规范发展探矿权、采矿权交易市场，发展排污权交易市场，规范排污权交易价格行为，健全法律法规和政策体系，促进资源环境产权有序流转和公开、公平、公正交易。

# 第十二篇 互利共赢 提高对外开放水平

适应我国对外开放由出口和吸收外资为主转向进口和出口、吸收外资和对外投资并重的新形势，必须实行更加积极主动的开放战略，不断拓展新的开放领域和空间，扩大和深化同各方利益的汇合点，完善更加适应发展开放型经济要求的体制机制，有效防范风险，以开放促发展、促改革、促创新。

## 第五十章 完善区域开放格局

坚持扩大开放与区域协调发展相结合，协同推动沿海、内陆、沿边开放，形成优势互补、分工协作、均衡协调的区域开放格局。

### 第一节 深化沿海开放

全面提升沿海地区开放型经济发展水平，加快从全球加工装配基地向研发、先进制造和服务基地转变。率先建立与国际化相适应的管理体制和运行机制，增强区域国际竞争软实力。推进服务业开放和国际服务贸易发展，吸引国际服务业要素集聚。深化深圳等经济特区、上海浦东新区、天津滨海新区开发开放，加快上海国际经济、金融、航运、贸易中心建设。

### 第二节 扩大内陆开放

以中心城市和城市群为依托，以各类开发区为平台，加快发展内陆开放型经济。发挥资源和劳动力比较优势，优化投资环境，扩大外商投资优势产业领域，积极承接国际产业和沿海产业转移，培育形成若干国际加工制造基地、服务外包基地。推进重庆两江新区开发开放。

### 第三节 加快沿边开放

发挥沿边地缘优势，制定和实行特殊开放政策，加快重点口岸、边境城市、边境（跨境）经济合作区和重点开发开放试验区建设，加强基础设施与周边国家互联互通，发展面向周边的特色外向型产业群和产业基地，把黑龙江、吉林、辽宁、内蒙古建成向东北亚开放的重要枢纽，把新疆建成向西开放的重要基地，把广西建成与东盟合作的新高地，把云南建成向西南开放的重要桥头堡，不断提升沿边地区对外开放的水平。

# 第五十一章 优化对外贸易结构

继续稳定和拓展外需，加快转变外贸发展方式，推动外贸发展从规模扩张向质量效益提高转变、从成本优势向综合竞争优势转变。

### 第一节 培育出口竞争新优势

保持现有出口竞争优势，加快培育以技术、品牌、质量、服务为核心竞争力的新优势。提升劳动密集型出口产品质量和档次，扩大机电产品和高新技术产品出口，严格控制高耗能、高污染、资源性产品出口。完善政策措施，促进加工贸易从组装加工向研发、设计、核心元器件制造、物流等环节拓展，延长国内增值链条。完善海关特殊监管区域政策和功能，鼓励加工贸易企业向海关特殊监管区域集中。鼓励企业建立国际营销网络，提高开拓国际市场能力。积极开拓新兴市场，推进出口市场多元化。

### 第二节 提升进口综合效应

优化进口结构，积极扩大先进技术、关键零部件、国内短缺资源和节能环保产品进口，适度扩大消费品进口，发挥进口对宏观经济平衡和结构调整的重要作用，优化贸易收支结构。发挥我国巨大市场规模的吸引力和影响力，促进进口来源地多元化。完善重要农产品进出口调控机制，有效利用国际资源。

### 第三节 大力发展服务贸易

促进服务出口，扩大服务业对外开放，提高服务贸易在对外贸易中的比重。在稳定和拓展旅游、运输、劳务等传统服务出口同时，努力扩大文化、中医药、软件和信息服务、商贸流通、金融保险等新兴服务出口。大力发展服务外包，建设若干服务外包基地。扩大金融、物流等服务业对外开放，稳步开放教育、医疗、体育等领域，引进优质资源，提高服务业国际化水平。

# 第五十二章 统筹"引进来"与"走出去"

坚持"引进来"和"走出去"相结合，利用外资和对外投资并重，提高安全高效地利用两个市场、两种资源的能力。

### 第一节 提高利用外资水平

优化结构，引导外资更多投向现代农业、高新技术、先进制造、节能环保、新能源、现代服务业等领域，鼓励投向中西部地区。丰富方式，鼓励外资以参股、并购等方式参与境内企业兼并重组，促进外资股权投资和创业投资发展。引进海外高层次人才和先进技术，鼓励外资企业在华设立研发中心，借鉴国际先进管理理念、制度、经验，积极融入全球创新体系。优化投资软环境，保护投资者合法权益。做好外资并购安全审查。有效利用国外优惠贷款和国际商业贷款，完善外债管理。

### 第二节 加快实施"走出去"战略

按照市场导向和企业自主决策原则，引导各类所有制企业有序开展境外投资合作。深化国际能源资源开发和加工互利合作。支持在境外开展技术研发投资合作，鼓励制造业优势企业有效对外投资，创建国际化营销网络和知名品牌。扩大农业国际合作，发展海外工程承包和劳务合作，积极开展有利于改善当地民生的项目合作。逐步发展我国大型跨国公司和跨国金融机构，提高国际化经营水平。做好海外投资环境研究，强化投资项目的科学评估。提高综合统筹能力，完善跨部门协调机制，加强实施"走出去"战略的宏观指导和服务。加快完善对外投资法律法规制度，积极商签投资保护、避免双重征税等多双边协定。健全境外投资促进体系，提高企业对外投资便利化程度，维护我国海外权益，防范各类风险。"走出去"的企业和境外合作项目，要履行社会责任，造福当地人民。

## 第五十三章 积极参与全球经济治理和区域合作

扩大同发达国家的交流合作，增进相互信任，提高合作水平。深化同周边国家的睦邻友好和务实合作，维护地区和平稳定，促进共同发展繁荣。加强同发展中国家的团结合作，深化传统友谊，维护共同利益。积极开展多边合作。

推动国际经济体系改革，促进国际经济秩序朝着更加公正合理的方向发展。积极参与二十国集团等全球经济治理机制合作，推动建立均衡、普惠、共赢的多边贸易体制，反对各种形式的保护主义。积极推动国际金融体系改革，促进国际货币体系合理化。加强与主要经济体宏观经济政策协调。积极参与国际规则和标准的修订制定，在国际经济、金融组织中发挥更大作用。

加快实施自由贸易区战略，进一步加强与主要贸易伙伴的经济联系，深化同新兴市场国家和发展中国家的务实合作。利用亚太经合组织等各类国际区域和次区域合作机制，加强与其他国家和地区的区域合作。加强南南合作。优化对外援助结构，创新对外援助方式，增加对发展中国家民生福利性项目、社会公共设施、自主发展能力建设等领域的经济和技术援助。

# 第十三篇 发展民主 推进社会主义政治文明建设

坚持党的领导、人民当家作主、依法治国有机统一，发展社会主义民主政治，建设社会主义法治国家。

## 第五十四章 发展社会主义民主政治

坚持和完善人民代表大会制度、中国共产党领导的多党合作和政治协商制度、民族区域自治制度以及基层群众自治制度，不断推进社会主义政治制度自我完善和发展。健全民主制度，丰富民主形式，拓宽民主渠道，依法实行民主选举、民主决策、民主管理、民主监督，保障人民的知情权、参与权、表达权、监督权。支持人民代表大会依法履行职权。巩固和壮大最广泛的爱国统一战线。支持人民政协围绕团结和民主两大主题履行职能。支持工会、共青团、妇联等人民团体依照法律和各自章程开展工作，参与社会管理和公共服务。贯彻落实党和国家的民族政策，保障少数民族合法权益，开展民族团结宣传教育和创建活动，巩固和

发展平等团结互助和谐的社会主义民族关系。全面贯彻党的宗教工作基本方针,发挥宗教界人士和信教群众在促进经济社会发展中的积极作用。鼓励新的社会阶层人士投身中国特色社会主义建设。做好侨务工作,支持海外侨胞、归侨侨眷关心和参与祖国现代化建设与和平统一大业。

## 第五十五章 全面推进法制建设

全面落实依法治国基本方略,坚持科学立法、民主立法,完善中国特色社会主义法律体系。重点加强加快转变经济发展方式、改善民生和发展社会事业以及政府自身建设等方面的立法。加强宪法和法律实施,维护社会主义法制的统一、尊严、权威。完善行政执法与刑事司法衔接机制,推进依法行政、公正廉洁执法。深化司法体制改革,优化司法职权配置,规范司法行为,建设公正高效权威的社会主义司法制度。实施"六五"普法规划,深入开展法制宣传教育,树立社会主义法治理念,弘扬法治精神,形成人人学法守法的良好社会氛围。加强法律援助。加强人权保障,促进人权事业全面发展。

## 第五十六章 加强反腐倡廉建设

坚持以人为本、执政为民,以保持和人民群众血肉联系为重点,扎实推进政风建设。坚持标本兼治、综合治理、惩防并举、注重预防的方针,以完善惩治和预防腐败体系为重点,加强反腐倡廉建设。严格执行廉政建设责任制。加强领导干部廉洁自律和严格管理,认真落实领导干部收入、房产、投资、配偶子女从业等情况定期报告制度。深入推进改革和制度创新,逐步建成内容科学、程序严密、配套完备、有效管用的反腐倡廉制度体系。建立健全决策权、执行权、监督权既相互制约又相互协调的权力结构和运行机制,积极推进政务公开和经济责任审计,加强对权力运行的制约和监督。加大查办违纪违法案件工作力度。开展社会领域防治腐败工作。加强反腐败国际交流合作。

# 第十四篇 深化合作 建设中华民族共同家园

从中华民族根本利益出发,推进"一国两制"实践和祖国和平统一大业,深化内地与港澳经贸合作,推进海峡两岸经济关系发展,为实现中华民族伟大复兴而共同努力。

## 第五十七章 保持香港澳门长期繁荣稳定

坚定不移贯彻"一国两制"、"港人治港"、"澳人治澳"、高度自治的方针,严格按照特别行政区基本法办事,全力支持特别行政区行政长官和政府依法施政。支持香港、澳门充分发挥优势,在国家整体发展中继续发挥重要作用。

### 第一节 支持港澳巩固提升竞争优势

继续支持香港发展金融、航运、物流、旅游、专业服务、资讯以及其他高增值服务业,支持香港发展成为离岸人民币业务中心和国际资产管理中心,支持香港发展高价值货物存货管理及区域分销中心,巩固和提升香港国际金融、贸易、航运中心的地位,增强金融中心的全球影响力。支持澳门建设世界旅游休闲中心,加快建设中国与葡语国家商贸合作服务平台。

### 第二节 支持港澳培育新兴产业

支持港澳增强产业创新能力,加快培育新的经济增长点,推动经济社会协调发展。支持香港环保、医疗服务、教育服务、检测和认证、创新科技、文化创意等优势产业发展,拓展合作领域和服务范围。支持澳门推动经济适度多元化,加快发展休闲旅游、会展商务、中医药、教育服务、文化创意等产业。

### 第三节 深化内地与港澳经济合作

加强内地和香港、澳门交流合作,继续实施更紧密经贸关系安排。深化粤港澳合作,落实粤港、粤澳合作框架协议,促进区域经济共同发展,打造更具综合竞争力的世界级城市群。支持建设以香港金融体系为龙头、珠江三角洲城市金融资源和服务为支撑的金融合作区域,打造世界先进制造业和现代服务业基地,构建现代流通经济圈,支持广东在对港澳服务业开放中先行先试,并逐步将先行先试措施拓展到其他地区。加快共建粤港澳优质生活圈步伐。加强规划协调,完善珠江三角洲地区与港澳的交通运输体系。加强内地与港澳文化、教育等领域交流与合作。

专栏 22  粤港澳合作重大项目  新华社发

**专栏22 粤港澳合作重大项目**

01 **港珠澳大桥**
建设海中桥隧工程、三地口岸和连接线，实现香港、珠海、澳门三地高速公路连通。

02 **广深港客运专线**
建设客运专线并与武广客运专线、杭福深客运专线接驳。

03 **港深西部快速轨道线**
研究建设途经深圳前海地区、连接香港国际机场和深圳宝安国际机场的香港第三条过境直通铁路。

04 **莲塘/香园围口岸**
缩短香港至深圳东部之间车程，增强处理车流量和旅客流量能力，提高粤港东部地区出入境通行效率。

05 **深圳前海开发**
加快城市轨道交通、铁路网、城市道路、水上交通和口岸建设，到2020年建成亚太地区重要的生产性服务业中心，把前海打造成粤港现代服务业创新合作示范区。

06 **广州南沙新区开发**
打造服务内地、连接港澳的商业服务中心、科技创新中心和教育培训基地，建设临港产业配套服务合作区。

07 **珠海横琴新区开发**
规划面积106.46平方公里，逐步建设成为探索粤港澳合作新模式的示范区、深化改革开放和科技创新的先行区、促进珠江口西岸地区产业升级的新平台。

# 第五十八章 推进两岸关系和平发展和祖国统一大业

坚持"和平统一、一国两制"方针和现阶段发展两岸关系、推进祖国和平统一进程八项主张，全面贯彻推动两岸关系和平发展重要思想和六点意见，牢牢把握两岸关系和平发展主题，反对和遏制"台独"分裂活动。巩固两岸关系发展的政治、经济、文化基础，全面深化两岸经济合作，努力加强两岸文化、教育、旅游等领域交流，积极扩大两岸各界往来，持续推进两岸交往机制化进程，构建两岸关系和平发展框架。

### 第一节 建立健全两岸经济合作机制

积极落实两岸经济合作框架协议和两岸其他协议，推进货物贸易、服务贸易、投资和经济合作的后续协商，促进两岸货物和服务贸易进一步自由化，逐步建立公平、透明、便利的投资及其保障机制，建立健全具有两岸特色的经济合作机制。

### 第二节 全面深化两岸经济合作

扩大两岸贸易，促进双向投资，加强新兴产业和金融等现代服务业合作，推动建立两岸货币清算机制。明确两岸产业合作布局和重点领域，开展双方重大项目合作。推进两岸中小

企业合作,提升中小企业竞争力。加强两岸在知识产权保护、贸易促进及贸易便利化、海关、电子商务等方面的合作。积极支持大陆台资企业转型升级。依法保护台湾同胞正当权益。

### 第三节 支持海峡西岸经济区建设

充分发挥海峡西岸经济区在推进两岸交流合作中的先行先试作用,努力构筑两岸交流合作的前沿平台,建设两岸经贸合作的紧密区域、两岸文化交流的重要基地和两岸直接往来的综合枢纽。发挥福建对台交流的独特优势,提升台商投资区功能,促进产业深度对接,加快平潭综合实验区开放开发,推进厦门两岸区域性金融服务中心建设。支持其他台商投资相对集中地区经济发展。

# 第十五篇 军民融合 加强国防和军队现代化建设

着眼国家安全和发展战略全局,统筹经济建设和国防建设,在全面建设小康社会进程中实现富国和强军的统一。

## 第五十九章 加强国防和军队现代化建设

坚持以毛泽东军事思想、邓小平新时期军队建设思想、江泽民国防和军队建设思想为指导,把科学发展观作为国防和军队建设的重要指导方针,着眼履行新世纪新阶段军队历史使命,以新时期军事战略方针为统揽,以推动国防和军队建设科学发展为主题,以加快转变战斗力生成模式为主线,全面加强军队革命化现代化正规化建设。

加强军队思想政治建设,坚持党对军队绝对领导的根本原则和制度,坚持人民军队的根本宗旨,大力弘扬听党指挥、服务人民、英勇善战的优良传统,培育当代革命军人核心价值观。进一步拓展和深化军事斗争准备,以提高基于信息系统的体系作战能力为根本着力点,深入推进军事训练转变,坚持科技强军,加强国防科研和武器装备建设,加快全面建设现代后勤步伐,加紧培养新型高素质军事人才,提高以打赢信息化条件下局部战争能力为核心的完成多样化军事任务的能力。坚持依法治军、从严治军,加强科学管理,积极稳妥地推进国防和军队改革,优化领导管理体制,健全联合作战指挥体制,推动军事理论、军事技术、军事组织、军事管理创新。建设现代化武装警察力量,增强执勤处突和反恐维稳能力。加强后备力量建设,巩固军政军民团结。

## 第六十章 推进军民融合式发展

坚持国家主导、制度创新、市场运作、军民兼容原则，统筹经济建设和国防建设，充分依托和利用社会资源，提高国防实力和军事能力，大力推进军地资源开放共享和军民两用技术相互转移，逐步建立适应社会主义市场经济规律、满足打赢信息化条件下局部战争需要的中国特色军民融合式发展体系。

建立和完善军民结合、寓军于民的武器装备科研生产体系、军队人才培养体系和军队保障体系。建设先进的国防科技工业，优化结构，增强以信息化为导向、以先进研发制造为基础的核心能力，加快突破制约科研生产的基础瓶颈，推动武器装备自主化发展。完善武器装备采购制度。改进军队人才征招选拔，完善从地方直接征召各类人才的政策制度。完善退役军人安置政策，加强退役军人培训和就业安置工作。稳步推进以生活保障、通用物资储备、装备维修等为重点的军队保障社会化改革，形成与国家人事劳动和社会保障法规体系相适应的军队职工管理制度，建立军民结合的军事物流体系和军地一体的战略投送力量体系。

坚持经济建设贯彻国防需求，加大重大基础设施和海洋、空天、信息等关键领域军民深度融合和共享力度，完善政策机制和标准规范，推动经济建设和国防建设协调发展、良性互动。强化全民国防观念，健全国防动员体系，加强人民武装、国民经济动员、人民防空、交通战备建设和国防教育，增强国防动员平时服务、急时应急、战时应战的能力。

# 第十六篇 强化实施 实现宏伟发展蓝图

本规划经过全国人民代表大会审议批准，具有法律效力。要举全国之力，集全民之智，实现未来五年宏伟发展蓝图。

## 第六十一章 完善规划实施和评估机制

推动规划顺利实施，主要依靠发挥市场配置资源的基础性作用；各级政府要正确履行职责，合理配置公共资源，引导调控社会资源，保障规划目标和任务的完成。

### 第一节 明确规划实施责任

本规划提出的预期性指标和产业发展、结构调整等任务，主要依靠市场主体的自主行为

实现。各级政府要通过完善市场机制和利益导向机制，创造良好的政策环境、体制环境和法治环境，打破市场分割和行业垄断，激发市场主体的积极性和创造性，引导市场主体行为与国家战略意图相一致。

本规划确定的约束性指标和公共服务领域的任务，是政府对人民群众的承诺。主要约束性指标要分解落实到有关部门和各省、自治区、直辖市。促进基本公共服务均等化的任务，要明确工作责任和进度，主要通过政府运用公共资源全力完成。

### 第二节 强化政策统筹协调

围绕规划提出的目标和任务，加强经济社会发展政策的统筹协调，注重政策目标与政策工具、短期政策与长期政策的衔接配合。按照公共财政服从和服务于公共政策的原则，优化财政支出结构和政府投资结构，逐步增加中央政府投资规模，建立与规划任务相匹配的中央政府投资规模形成机制，重点投向民生和社会事业、农业农村、科技创新、生态环保、资源节约等领域，更多投向中西部地区和老少边穷地区。

### 第三节 实行综合评价考核

加快制定并完善有利于推动科学发展、加快转变经济发展方式的绩效评价考核体系和具体考核办法，弱化对经济增长速度的评价考核，强化对结构优化、民生改善、资源节约、环境保护、基本公共服务和社会管理等目标任务完成情况的综合评价考核，考核结果作为各级政府领导班子调整和领导干部选拔任用、奖励惩戒的重要依据。

### 第四节 加强规划监测评估

完善监测评估制度，加强监测评估能力建设，加强服务业、节能减排、气候变化、劳动就业、收入分配、房地产等方面统计工作，强化对规划实施情况跟踪分析。国务院有关部门要加强对规划相关领域实施情况的评估，接受全国人民代表大会及其常务委员会的监督检查。规划主管部门要对约束性指标和主要预期性指标完成情况进行评估，并向国务院提交规划实施年度进展情况报告，以适当方式向社会公布。在规划实施的中期阶段，由国务院组织开展全面评估，并将中期评估报告提交全国人民代表大会常务委员会审议。需要对本规划进行调整时，国务院要提出调整方案，报全国人民代表大会常务委员会批准。

## 第六十二章 加强规划协调管理

推进规划体制改革，加快规划法制建设，以国民经济和社会发展总体规划为统领，以主体功能区规划为基础，以专项规划、国土规划和土地利用规划、区域规划、城市规划为支撑，形成各类规划定位清晰、功能互补、统一衔接的规划体系，完善科学化、民主化、规范化的编制程序，健全责任明确、分类实施、有效监督的实施机制。

国务院有关部门要组织编制一批国家级专项规划特别是重点专项规划，细化落实本规划提出的主要任务。国家级重点专项规划，要围绕经济社会发展关键领域和薄弱环节，着力解决突出问题，形成落实本规划的重要支撑和抓手。

地方规划要切实贯彻国家战略意图，结合地方实际，突出地方特色。要做好地方规划与本规划提出的发展战略、主要目标和重点任务的协调，特别要加强约束性指标的衔接。

加强年度计划与本规划的衔接，对主要指标应当设置年度目标，充分体现本规划提出的发展目标和重点任务。年度计划报告要分析本规划的实施进展情况，特别是约束性指标的完成情况。

全国各族人民要紧密团结在以胡锦涛同志为总书记的党中央周围，高举中国特色社会主义伟大旗帜，解放思想、实事求是、与时俱进、开拓创新，为实现国民经济和社会发展第十二个五年规划和全面建设小康社会宏伟目标而奋斗！

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# EXHIBIT 28

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# Notice of the State Council on Issuing the Implementation Plan for Accelerating Structural Adjustment and Promoting Transformation and Upgrading of the Shipbuilding Industry (2013-2015)

Guofa [2013] No. 29

The people's governments of all provinces, autonomous regions, and municipalities directly under the Central Government, all ministries and commissions of the State Council, and all agencies directly under the State Council: The

"Implementation Plan for Accelerating Structural Adjustment and Promoting Transformation and Upgrading of the Shipbuilding Industry (2013-2015)" is hereby issued to you. Please consider it carefully in light of the actual conditions of your region and department. execute thouroughly.

State Council

July 31, 2013

(This article is released to the public)

# Implementation Plan for Accelerating Structural Adjustment and Promoting Transformation and Upgrading of the Shipbuilding Industry (2013-2015)

The shipbuilding industry is a comprehensive industry that provides technical equipment for marine transportation, marine development and national defense construction. Affected by the deep-seated international financial crisis, the international shipping market continues to be sluggish, new shipbuilding orders are seriously insufficient, new ship transaction prices continue to fall, and the problem of overcapacity has intensified. The development of my country's shipbuilding industry is facing unprecedented severe challenges. In accordance with the work requirements of stabilizing growth, adjusting structure, and promoting transformation, and in order to maintain sustained and healthy development of the industry, this implementation plan is specially formulated.

1. Facing the situation

(1) Main achievements. Since the new century, under the leadership of the Party Central Committee and the State Council, my country's shipbuilding industry has seized rare market opportunities, entered the fastest growing period in history, and achieved remarkable results. In 2006, the State Council approved the "Medium and Long-term Development Plan for the Shipbuilding Industry (2006-2015)", which clarified the development direction and key tasks, and comprehensively launched the construction of three major shipbuilding bases in the Bohai Bay, Yangtze River Estuary, and Pearl River Estuary areas. In 2009, the State Council issued the "Shipbuilding Industry Adjustment and Revitalization Plan", which proposed a package of policies and measures for the

shipbuilding industry to respond to the international financial crisis, maintain growth, expand domestic demand, and adjust structure. my country's shipbuilding industry has maintained stability under extremely unfavorable market conditions. Rapid development. The scale of the industry has expanded rapidly, and the proportion of completed shipbuilding, new orders, and orders in hand in the world market has increased significantly; the pace of structural adjustment has accelerated, mainstream ship types have formed brands, new progress has been made in the research and development and manufacturing of high-tech ships and marine engineering equipment, and ship supporting capabilities have Continue to strengthen; the industrial layout has been optimized, the relocation of urban shipyards has been advanced in an orderly manner, the three major shipbuilding bases have formed a scale, and the quality of development has been significantly improved. Our country has become one of the most influential shipbuilding countries in the world.

(2) Challenges and opportunities. Affected by the international financial crisis, the demand in the international shipping market has dropped significantly, the number of orders held has continued to decrease, and the downward pressure on industrial development has continued to increase. New norms, new conventions, and new standards for international shipping and shipbuilding have been intensively introduced, and ship products are energy-saving, safe, and environmentally friendly. Requirements are constantly escalating; the demand structure is accelerating adjustment, and high-end products such as energy-saving and environmentally friendly ships, high-tech ships, and offshore engineering equipment have gradually become new market growth points. The world's shipbuilding industry has entered a new round of profound adjustment, and all-round competition around technology, products, and markets is becoming increasingly fierce. At the same time, structural problems such as weak innovation capabilities of my country's shipbuilding industry, weak high-end products, and lagging supporting industries still exist. In particular, the contradiction of overcapacity has intensified. The situation faced in the three years after the "Twelfth Five-Year Plan" is very severe. It is necessary to accelerate structural adjustment and promote The task of transformation and upgrading is very urgent. But it should also be noted that our country has built a number of high-level shipbuilding infrastructure, with complete upstream and downstream industries, abundant labor resources, huge domestic market potential, and still outstanding comparative advantages. We must seize the opportunity, take effective measures, further promote structural adjustment, continuously improve quality and efficiency, and accumulate strength and create conditions for building a strong shipbuilding country and implementing the maritime strategy.

2. Overall requirements

(1) Guiding ideology.

Comprehensively implement the spirit of the 18th National Congress of the Communist Party of China, guided by Deng Xiaoping Theory, the important thought of "Three Represents" and the Scientific Outlook on Development, based on the present and long-term, focusing on accelerating the transformation of the development model of the shipbuilding industry to improve the quality and efficiency of development As the center, adapt to the new trends in international ship technology and product development, focus on improving the demand structure, implement innovation-driven, promote the upgrading of technology and product structure; give full play to the role of corporate market entities, strengthen macro-control and guidance, strive to promote mergers and reorganizations and transformation and conversion, and optimize Industrial organization structure and production capacity structure; actively respond to changes in the international shipping market, focus on strengthening corporate management and industry services, stabilize and consolidate the international market, improve the international competitiveness of the industry, and lay a solid foundation for realizing the transformation of the shipbuilding industry from large to strong.

(2) Basic principles.

Strengthen demand guidance and adjust product structure. Develop green and environmentally friendly ships, specialized special ships, and high-tech ships with high technological content and large market potential, develop marine engineering equipment, improve the supporting capabilities of marine equipment, expand effective domestic demand, and promote the upgrading of the ship product structure.

Implement innovation drive to improve competitiveness. Promote technological innovation, fully meet the requirements of new international norms, new conventions, and new standards, improve ship design and manufacturing levels, enhance the international competitiveness of products, and stabilize international market share. Implement overseas investment and industrial reorganization, carry out global industrial layout, and actively expand new space for external development.

Control new production capacity and optimize production capacity structure. Curb the blind expansion of production

capacity, use the existing infrastructure capabilities of shipbuilding, ship repair, and marine engineering equipment of key enterprises to promote the reorganization and adjustment of large enterprises and integrate superior production capacity; adjust the business structure, encourage small and medium-sized enterprises to transform and switch production, and eliminate backward production capacity.

Improve the policy system and innovate institutional mechanisms. Respect the laws of the market economy, adapt to the new situation of profound adjustments in the world's shipbuilding industry, and improve the policy system for the transformation and development of the shipbuilding industry; promote reforms in key areas and innovation of systems and mechanisms, strengthen corporate management, improve industry services, and continuously enhance the development vitality of the shipbuilding industry itself.

(3) Development goals.

——The industry achieves stable and healthy development. In the three years after the "Twelfth Five-Year Plan", the domestic market has maintained steady growth, the international market share has been consolidated, the production and operation of key enterprises have been stable, and the shipbuilding industry has achieved steady and healthy development.

——Innovation and development capabilities have been significantly enhanced. The three major new mainstream ship types of newly built bulk carriers, oil tankers and container ships fully meet the requirements of new international norms, new conventions and new standards, and the loading rate of marine equipment has further increased. The international market share of the main products of high-tech ships and marine engineering equipment has reached 25% and 20% respectively.

——The quality of industrial development continues to improve. The industrial layout has been adjusted and optimized, and three world-class shipbuilding and marine engineering equipment bases have been built around the Bohai Bay, the Yangtze River Estuary, and the Pearl River Estuary. Key enterprises have established a modern shipbuilding model, with shipbuilding efficiency reaching 15 man-hours/corrected gross ton, energy consumption per unit of industrial added value falling by 20%, and the average primary utilization rate of steel reaching over 90%.

——Ocean development equipment has been significantly improved. The structure of the transport fleet has been optimized, the level of fishery equipment has been significantly improved, the equipment configuration for scientific inspections and resource surveys has been strengthened, the equipment for the exploration and development of marine oil and gas resources has met domestic demand, and cruise and yacht products have adapted to the development needs of the marine tourism industry.

——Marine support capabilities have been significantly improved. The configuration of administrative law enforcement ships has been greatly improved, and the efficiency of deployment and use has been significantly improved to meet the needs of maritime rights protection and law enforcement; rescue and salvage ships have been upgraded, and navigation support capabilities and comprehensive maritime emergency rescue capabilities have been significantly enhanced.

——Progress has been made in resolving excess production capacity. The momentum of blind expansion of production capacity has been curbed, and the total production capacity has not increased; corporate mergers and reorganizations have been steadily advancing, and industrial concentration has continued to increase; a number of large-scale shipbuilding infrastructure has been integrated, and the industrial layout has become more reasonable; a number of small and medium-sized enterprises have transformed and switched production, and backward production capacity has withdrawn from the market .

3. Main tasks

(1) Accelerate scientific and technological innovation and implement innovation-driven development.

Carry out key technological research on ships and offshore engineering equipment, cultivate and improve scientific and technological innovation capabilities, and enhance new impetus for innovation-driven development. Increase the development of energy-saving, safety and environmental protection technologies for mainstream ship types that comply with new international norms, new conventions, and new standards, conduct publicity, training, and promotion, actively participate in the formulation of international standards, and support the research and application of key technologies such as digital intelligent design systems. Carry out research on liquefied natural gas storage technology and make breakthroughs in dual-fuel and pure gas power technology for liquefied natural gas ships; organize research on the overall layout of luxury cruise ships, vibration and noise reduction, maritime comfort and other technologies, as well as engineering project organization management and special construction processes. Carry out research on key common technologies such as hydrodynamic performance and fatigue strength analysis of deep-sea floating structures, and improve the conceptual design and basic design of core equipment such as drilling ships, semi-

submersible platforms, LNG floating production, storage and unloading units, and underwater production systems. level, and master the design and manufacturing technology of large-scale functional modules. Make breakthroughs in the design and construction technology of large ocean-going fishing vessels such as krill fishing and processing ships and large trawl processing ships, and improve the design and construction capabilities of tuna longline vessels, tuna seine vessels, saury fishing vessels and other ocean-going fishing vessels. Accelerate product development, establish a standardized ship type library, strengthen the integrated application and innovation of collision prevention, seaworthiness and other technologies, and improve the design and manufacturing level of administrative law enforcement and official ships.

(2) Improve the manufacturing level of key supporting equipment and materials.

Focus on relying on domestic market demand to promote the manufacturing of key marine supporting equipment, special systems and equipment for marine engineering equipment, and special materials to improve the core competitiveness of the industry. Cultivate own brands of advantageous products such as medium and high-speed diesel engines, small-bore low-speed diesel engines, and deck machinery, accelerate the industrialization of rotary vane steering gears, sewage treatment devices, ballast water treatment systems, oil-water separators and other products, and improve communication, navigation and automation systems Manufacturing level. Accelerate the development of key systems such as LNG ship power propulsion systems, cryogenic refrigeration systems, and cryogenic liquid cargo loading and unloading systems. Carry out technological research on the development of special systems and equipment for marine engineering equipment such as turbines and crude oil generating units, single-point mooring systems, dynamic positioning systems, electric propulsion systems, offshore platform cranes, underwater wellhead devices, and professional pipe-laying equipment. Promote the manufacturing of special equipment for fishing vessels to explore, lure, catch, process, and refrigerate. Promote the industrialization of electronic, communication, and navigation equipment for administrative law enforcement and official ships. Develop corrosion-resistant, ultra-low temperature, high strength, ultra-wide, ultra-long, ultra-thin and special-shaped ship plates, steel for marine engineering equipment, marine oil and gas transmission pipelines and other special steels.

(3) Adjust and optimize the productivity layout of the shipbuilding industry.

Strictly control market access, strictly control new shipbuilding, ship repair, and offshore engineering equipment infrastructure (slipways, docks, outfitting docks), and resolutely curb blind investment that aggravates overcapacity. By optimizing the industrial organizational structure, promoting corporate mergers and reorganizations, concentrating resources, highlighting the main business, integrating a number of large-scale shipbuilding, ship repair and marine engineering equipment infrastructure resources, we will develop an internationally competitive shipping enterprise group. By adjusting the business structure of small and medium-sized shipyards, developing intermediate product manufacturing, ship repair, ship scrapping and other businesses, exploring the non-ship product market, and eliminating a number of backward production capacities. Accelerate the relocation of old urban shipyards without increasing production capacity. Relying on the three major shipbuilding bases in the Bohai Bay, Yangtze River Estuary and Pearl River Estuary regions to develop marine engineering equipment, focus on the development of special systems and equipment for marine engineering equipment, and form an industrial pattern with coordinated development of shipbuilding, marine engineering equipment and supporting equipment.

(4) Improve the demand structure and accelerate the development of high-end products.

Encourage old ships to be scrapped and replaced in advance. Accelerate the elimination and renewal of old ocean-going and coastal transport ships, promote the standardization of inland river ship types, develop energy-saving, safe and environmentally friendly ships that meet new international norms, new conventions, and new standards, optimize the fleet structure, and improve the competitiveness of the shipping industry.

Vigorously develop marine engineering equipment. Increase efforts in the exploration and development of offshore oil and gas resources, and develop offshore engineering equipment such as drilling platforms, operating platforms, survey ships, and engineering ships. Encourage key oil and gas, shipbuilding companies, and scientific research institutes to establish specialized enterprises or consortiums to cultivate offshore engineering equipment design, system integration, and general contracting capabilities.

Strengthen the deployment of administrative law enforcement vessels. Increase the number of maritime administrative law enforcement ships, improve their configuration level, start building a number of maritime administrative law enforcement ships, improve equipment conditions, enrich law enforcement forces, and improve maritime rights protection and law enforcement

capabilities as soon as possible.

Accelerate comprehensive marine development and emergency support ship construction. Build a professional maritime emergency rescue team, start construction of a number of large-scale rescue and salvage ships, and improve comprehensive maritime rescue capabilities. Accelerate the development and construction of a number of resources survey, environmental monitoring, and scientific investigation ships, improve maritime scientific research conditions, and enhance marine scientific research capabilities. Relying on major marine infrastructure projects, we will build a number of water engineering ships to form large-scale offshore construction capabilities.

Develop high-tech ship market. Vigorously develop large-scale liquefied natural gas ships and improve professional design and manufacturing capabilities and supporting levels. Accelerate the cultivation of the cruise market and gradually master the design and construction technology of large and medium-sized cruise ships. Improve the yacht industry chain and cultivate private brands of luxury yachts.

Implement the renovation and renovation of fishing boats. Gradually phase out old, old and wooden fishing boats and develop fishing boats with good selectivity, high efficiency and energy saving. Accelerate the pace of updating old distant-water fishing vessels and improve the level of distant-water fishing equipment. Give full play to the R&D and manufacturing advantages of the shipbuilding industry, integrate scientific research and production factors, and improve the level of fishing boat development, design and manufacturing.

(5) Stabilize international market share and expand new space for external development.

Strengthen analysis and research on the international ship market situation, product development trends, and development strategies of major shipbuilding companies, increase efforts to develop international markets, and stabilize and strive to expand international market share.

Support the introduction of core talents and teams for ship and ocean engineering equipment development and design. Support qualified enterprises to set up R&D centers overseas through various methods such as self-construction, mergers and acquisitions, joint ventures, and cooperation, support overseas industrial reorganization, and master advanced technologies in the fields of marine engineering equipment, high-tech ships, and supporting equipment. Support large-scale ships and supporting enterprises to develop global industrial layout and establish marketing networks and maintenance service bases overseas.

(6) Promote the development of military-civilian integration.

Promote the sharing of military and civilian scientific research conditions, resources and results, promote the cooperative development of advanced ship design and manufacturing technologies, strengthen the overall planning and integrated development of basic military and civilian technologies and products, and promote the interoperability of military and civilian standards. . Guide shipbuilding enterprises to leverage their technological advantages and actively explore the civilian special and special-purpose ship market. Based on the foundation of the civilian shipbuilding industry and relying on major civilian product research and development projects, we will break through the bottlenecks in military industry capacity building such as key products, materials, and processing and manufacturing equipment.

(7) Strengthen enterprise management and industry services.

Guide shipping companies to deepen internal reforms, strengthen system innovation, and consolidate the management foundation. Strengthen cost and risk control, and enhance the ability to respond to market changes and resist market risks. Comprehensively establish a modern shipbuilding model, accelerate informatization construction, promote lean shipbuilding, apply energy-saving and material-saving technologies and processes, reduce resource and energy consumption, and improve development quality and efficiency. Strengthen the construction of crew talent team, establish strict crew training, selection, assessment, and exit mechanisms to improve the overall quality of crew and meet the needs of sustainable development. Strengthen the management of the shipping industry, improve industry access conditions, strengthen the publicity, training and promotion of new international norms, new conventions and new standards, and give full play to the role of industry associations and professional institutions in industry self-discipline, information consulting, technical services, inspection and testing, publicity and training important role in other aspects.

4. Support policies

(1) Encourage old transport ships to be scrapped and updated in advance.

The adjustment and continuation of the policy to promote the early scrapping and updating of old transport ships and

single-hull oil tankers will be implemented until December 31, 2015. Encourage old ocean-going and coastal transport ships to be scrapped in advance and build green and environmentally friendly ships that meet the requirements of new international norms, new conventions, and new standards.

(2) Support administrative law enforcement, construction of official ships, and renovation of fishing boats.

Support the construction of maritime administrative law enforcement ships and official ships such as rescue and salvage, resource surveys, and scientific inspections, support the equipment of navigation support facilities and equipment, support the renewal and reconstruction of ocean fishing vessels, and meet the financial needs for ship construction and renewal.

(3) Encourage ship buyer credit business.

Financial institutions are encouraged to increase the investment of ship export buyer's credit funds and provide export buyer's credit to overseas shipowners who order ships and offshore engineering equipment at key domestic shipyards. Banking financial institutions are encouraged to actively expand diversified financing channels and raise funds through various methods.

(4) Increase credit financing support and innovative financial support policies.

Financial institutions are encouraged to follow commercial principles to provide financing services to shipowners who order ships domestically and purchase marine diesel engines and crankshafts domestically, and increase support for mergers and reorganizations of shipping companies, overseas mergers and acquisitions, and business transformation and product structure adjustments of small and medium-sized shipyards. Credit financing support. Research and develop loan securitization business for key shipping companies. Actively guide and support key shipping companies to issue non-financial corporate debt financing instruments, corporate bonds, etc. Actively use export credit insurance to support ship exports. Optimize the credit insurance policy for ship export buyers, innovate guarantee methods, and simplify the handling process. Encourage qualified places to carry out pilot projects of ship financing leasing.

(5) Strengthen enterprise technological progress and technological transformation.

Guide enterprises to increase investment in scientific research and development and technological transformation, enhance the innovation capabilities of high-tech ships and marine engineering equipment, carry out production process transformation, strengthen the professional capacity building of high-tech ships, marine engineering equipment, and marine equipment, as well as technology introduction, digestion and absorption Re-innovate and fill the gaps in domestic industrialization project construction.

(6) Control new production capacity and support the adjustment of production capacity structure.

Local people's governments at all levels and their relevant departments shall not approve or record shipbuilding, ship repairing and marine engineering equipment infrastructure (slipways, docks, outfitting docks) projects with new production capacity in any name, and the land, transportation, environmental protection and other departments shall not handle them. For land and shoreline supply, environmental assessment approval and other related businesses, financial institutions are not allowed to provide any form of new credit support. Local people's governments at all levels must immediately organize and carefully clean up the illegal projects under construction in the shipping industry. For illegal projects that are built before approval, are built while approval is being approved, or are approved beyond their authority, if they have not yet started construction, they are not allowed to start, and projects under construction are not allowed to start. Construction must be stopped; land, transportation, environmental protection departments and financial institutions must handle the matter in accordance with laws and regulations. For projects under construction that are suspended due to violation of regulations, follow the principle of whoever violates the regulations shall be responsible, carry out the aftermath work such as debt and personnel placement, distinguish different situations, take corresponding measures, and carry out classified processing. Illegal production capacity that has been built will be dealt with in accordance with relevant laws, regulations and industry access conditions. Under the conditions of meeting the requirements of total volume control, layout planning, mergers and reorganizations, we will promote the integration and improvement of large-scale infrastructure capabilities. Accelerate the elimination of backward production capacity and support the transformation and conversion of enterprises.

5. Implementation guarantees:

All regions, departments, and units must further improve their understanding of the importance and urgency of resolving overcapacity conflicts, accelerating structural adjustment, promoting transformation and upgrading, and maintaining the sustainable and healthy development of the shipbuilding industry, strengthen organizational leadership, and do a good job

implement.

Relevant departments of the State Council should strengthen communication and close cooperation, formulate and improve supporting policies and measures as soon as possible, and effectively provide relevant guidance and services. All relevant regions must follow the goals, tasks and policies and measures determined in this implementation plan and formulate specific implementation plans based on actual conditions to ensure that various tasks and objectives are completed on time. New situations and new problems that arise during the implementation process will be reported back to the National Development and Reform Commission and other relevant departments in a timely manner.

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中央政府门户网站　www.gov.cn　　2013年08月04日 18时00分　　来源：国务院办公厅

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## 国务院关于印发船舶工业加快结构调整促进
## 转型升级实施方案（2013-2015年）的通知
### 国发〔2013〕29号

各省、自治区、直辖市人民政府，国务院各部委、各直属机构：

现将《船舶工业加快结构调整促进转型升级实施方案（2013-2015年）》印发给你们，请结合本地区、本部门实际，认真贯彻执行。

国务院

2013年7月31日

（此件公开发布）

## 船舶工业加快结构调整促进转型升级
## 实施方案（2013-2015年）

船舶工业是为海洋运输、海洋开发及国防建设提供技术装备的综合性产业。受国际金融危机的深层次影响，国际航运市场持续低迷，新增造船订单严重不足，新船成交价格不断走低，产能过剩矛盾加剧，我国船舶工业发展面临前所未有的严峻挑战。按照稳增长、调结构、促转型的工作要求，为保持产业持续健康发展，特制定本实施方案。

一、面临形势

（一）主要成就。新世纪以来，在党中央、国务院的领导下，我国船舶工业抓住难得的市场机遇，进入了历史上发展最快的时期，取得显著成就。2006年，国务院批准《船舶工业中长期发展规划（2006-2015年）》，明确了发展方向和重点任务，全面启动环渤海湾、长江口、珠江口地区等三大造船基地建设。2009年，国务院印发《船舶工业调整和振兴规划》，提出了船舶工业应对国际金融危机，保增长、扩内需、调结构的一揽子政策措施，我国船舶工业在极其不利的市场形势下，保持了平稳较快发展。产业规模迅速扩大，造船完工量、新承接订单量、手持订单量占世界市场比重显著提高；结构调整步伐加快，主流船型形成品牌，高技术船舶、海洋工程装备研发制造取得新进展，船用配套能力不断增强；产业布局得到优化，城市船厂搬迁有序推进，三大造船基地形成规模，发展质量明显改善。我国已经成为世界最具影响力的造船大国之一。

（二）挑战和机遇。受国际金融危机深层次影响，国际船舶市场需求大幅下降，手持订单持续减少，产业发展下行压力不断加大；国际航运和造船新规范、新公约、新标准密集出台，船舶产品节能、安全、环保要求不断升级；需求结构加快调整，节能环保船舶、高技术船舶、海洋工程装备等高端产品逐渐成为新的市场增长点。世界船舶工业已经进入了新一轮深刻调整期，围绕技术、产品、市场的全方位竞争日趋激烈。同时，我国船舶工业创新能力不强、高端产品薄弱、配套产业滞后等结构性问题依然存在，特别是产能过剩矛盾加剧，"十二五"后三年面临的形势十分严峻，加快结构调整、促进转型升级的任务十分迫切。但也应该看到，我国已经建成了一批高水平的造船基础设施，上下游产业齐全，劳动力资源充裕，国内市场潜力巨大，比较优势依然突出。必须抓住机遇，采取有力措施，深入推进结构调整，不断提高质量效益，为建成造船强国、实施海洋战略积蓄力量和创造条件。

二、总体要求

（一）指导思想。

全面贯彻落实党的十八大精神，以邓小平理论、"三个代表"重要思想、科学发展观为指导，立足当前，着眼长远，以加快转变船舶工业发展方式为主线，以提高发展质量和效益为中心，适应国际船舶技术和产品发展新趋势，着力改善需求结构，实施创新驱动，推动技术和产品结构升级；发挥企业市场主体作用，加强宏观调控和引导，着力推进兼并重组和转型转产，优化产业组织结构和产能结构；积极应对国际船舶市场变化，着力加强企业管理和行业服务，稳定和巩固国际市场，提高产业国际竞争力，为实现船舶工业由大到强的转变奠定坚实基础。

（二）基本原则。

强化需求引导，调整产品结构。发展技术含量高、市场潜力大的绿色环保船舶、专用特种船舶、高技术船舶，发展海洋工程装备，提高船用设备配套能力，扩大国内有效需求，推动船舶产品结构升级。

实施创新驱动，提高竞争能力。推进技术创新，全面满足国际新规范、新公约、新标准要求，提高船舶设计制造水平，增强产品国际竞争力，稳定国际市场份额。实施海外投资和产业重组，开展全球产业布局，积极拓展对外发展新空间。

控制新增产能，优化产能结构。遏制产能盲目扩张，利用骨干企业现有造船、修船、海洋工程装备基础设施能力，推进大型企业重组和调整，整合优势产能；调整业务结构，鼓励中小企业转型转产，淘汰落后产能。

完善政策体系，创新体制机制。尊重市场经济规律，顺应世界船舶工业深刻调整新形势，完善船舶工业转型发展的政策体系；推进重点领域改革和体制机制创新，加强企业管理，改善行业服务，不断增强船舶工业自身发展活力。

（三）发展目标。

——产业实现平稳健康发展。"十二五"后三年，国内市场保持稳定增长，国际市场份额得到巩固，骨干企业生产经营稳定，船舶工业实现平稳健康发展。

——创新发展能力明显增强。新建散货船、油船、集装箱船三大主流船型全面满足国际新规范、新公约、新标准的要求，船用设备装船率进一步提高。高技术船舶、海洋工程装备主要产品国际市场占有率分别达到25％和20％以上。

——产业发展质量不断提高。产业布局调整优化，建成环渤海湾、长江口、珠江口三大世界级造船和海洋工程装备基地。骨干企业建立现代造船模式，造船效率达到15工时/修正总吨，单位工业增加值能耗下降20％，平均钢材一次利用率达到90％以上。

——海洋开发装备明显改善。运输船队结构得到优化，渔业装备水平明显提高，科学考察、资源调查等装备配置得到加强，海洋油气资源勘探开发装备满足国内需求，邮轮游艇产品适应海洋旅游产业发展需要。

——海洋保障能力显著提升。行政执法船舶配置大幅提升，调配使用效率明显提高，适应海上维权执法需要；救助、打捞船舶升级换代，航海保障能力及海上综合应急救援能力显著增强。

——化解过剩产能取得进展。产能盲目扩张势头得到遏制，产能总量不增加；企业兼并重组稳步推进，产业集中度不断提高；一批大型造船基础设施得到整合，产业布局更加合理；一批中小企业转型转产，落后产能退出市场。

三、主要任务

（一）加快科技创新，实施创新驱动。

开展船舶和海洋工程装备关键技术攻关，培育提高科技创新能力，增强创新驱动发展新动力。加大主流船型符合国际新规范、新公约、新标准的节能安全环保技术开发，做好宣传、培训和推广，积极参与国际标准制订，支持数字化智能设计系统等重点技术研究和应用。开展液化天然气存储技术研究，突破液化天然气船双燃料、纯气体动力技术；组织豪华邮轮总体布置、减振降噪、海上舒适度等技术以及工程项目组织管理和特殊建造工艺研究。开展深海浮式结构物水动力性能、疲劳强度分析等关键共性技术攻关，提升钻井船、半潜式平台、液化天然气浮式生产储卸装置、水下生产系统等核心装备的概念设计和基本设计水平，掌握大型功能模块的设计制造技术。突破磷虾捕捞加工船、大型拖网加工船等大型远洋渔船设计建造技术，提高金枪鱼延绳钓船、金枪鱼围网船、秋刀鱼捕捞船等远洋渔船设计建造能力。加快产品开发，建立标准化船型库，加强防撞击、适航性等技术集成应用和创新，提高行政执法和公务船舶设计制造水平。

（二）提高关键配套设备和材料制造水平。

重点依托国内市场需求，推进关键船用配套设备、海洋工程装备专用系统和设备以及特种材料的制造，提高产业核心竞争力。培育中高速柴油机、小缸径低速柴油机、甲板机械等优势产品自有品牌，加快转叶式舵机、污水处理装置、压载水处理系统、油水分离机等产品产业化，提高通信导航和自动化系统制造水平。加快液化天然气船动力推进系统、低温冷藏系统、低温液货装卸系统等关键系统的研制。开展透平和原油发电机组、单点系泊系统、动力定位系统、电力推进系统、海洋平台吊机、水下井口装置、铺管专业设备等海洋工程装备专用系统和设备研制技术攻关。推进渔船探渔、诱渔、捕捞、加工、冷藏等专用设备制造。推进行政执法和公务船舶电子、通信、导航设备产业化。发展耐腐蚀、超低温、高强度、超宽超长超薄和异形钢板，海洋工程装备、海洋油气输送管线用钢等特种钢材。

（三）调整优化船舶产业生产力布局。

严把市场准入关口，严格控制新增造船、修船、海洋工程装备基础设施（船台、船坞、舾装码头），坚决遏制盲目投资加剧产能过剩矛盾。通过优化产业组织结构，推进企业兼并重组，集中资源、突出主业，整合一批大型造船、修船及海洋工程装备基础设施资源，发展具有国际竞争力的船舶企业集团。通过调整中小船厂业务结构，发展中间产品制造、修船、拆船等业务，开拓非船产品市场，淘汰一批落后产能。在不增

加产能的前提下，加快实施城市老旧船厂搬迁。依托环渤海湾、长江口和珠江口地区三大造船基地发展海洋工程装备，重点发展海洋工程装备专用系统和设备，形成造船、海洋工程装备、配套设备协调发展的产业格局。

（四）改善需求结构，加快高端产品发展。

鼓励老旧船舶提前报废更新。加快淘汰更新老旧远洋、沿海运输船舶，推进内河船型标准化，发展满足国际新规范、新公约、新标准的节能安全环保船舶，优化船队结构，提高航运业竞争力。

大力发展海洋工程装备。加大海洋油气资源勘探开发力度，发展钻井平台、作业平台、勘察船、工程船等海洋工程装备。鼓励骨干油气、造船企业和科研院所等成立专业化企业或联合体，培育海洋工程装备设计、系统集成和总承包能力。

加强行政执法船舶配置。增加海上行政执法船舶数量，提高配置水平，开工建造一批海上行政执法船舶，改善装备条件，充实执法力量，尽快提高海上维权执法能力。

加快海洋综合开发和应急保障船舶建造。建设专业化海上应急救援队伍，开工建造一批大型救助、打捞船舶，提高海上综合救援能力。加快开发建造一批资源勘察、环境监测、科学考察船舶，改善海上科研条件，提高海洋科考能力。依托重大海洋基础设施工程，建造一批水上工程船舶，形成规模化海上施工能力。

开拓高技术船舶市场。大力发展大型液化天然气船，提高专业化设计制造能力和配套水平。加快培育邮轮市场，逐步掌握大中型邮轮设计建造技术。完善游艇产业链条，培育豪华游艇自有品牌。

实施渔船更新改造。逐步淘汰老、旧、木质渔船，发展选择性好、高效节能的捕捞渔船。加快老旧远洋渔船更新步伐，提升远洋渔业装备水平。发挥船舶工业研发和制造优势，整合科研生产要素，提高渔船开发设计和制造水平。

（五）稳定国际市场份额，拓展对外发展新空间。

加强对国际船舶市场态势、产品发展趋势以及主要造船企业发展战略的分析和研究，加大国际市场开拓力度，稳定和努力扩大国际市场份额。

支持引进船舶和海洋工程装备开发、设计核心人才和团队。支持有条件的企业通过自建、并购、合资、合作等多种方式在海外设立研发中心，支持开展海外产业重组，掌握海洋工程装备、高技术船舶、配套设备等领域的先进技术。支持大型船舶和配套企业开展全球产业布局，在海外建立营销网络和维修服务基地。

（六）推进军民融合发展。

促进军用与民用科研条件、资源和成果共享，促进船舶军民通用设计、制造先进技术的合作开发，加强军用与民用基础技术、产品的统筹和一体化发展，推动军用标准与民用标准的互通互用。引导造船企业发挥技术优势积极开拓民用特种、专用船舶市场。立足民用船舶工业基础，依托重大民品研制项目，突破关键产品、材料、加工制造设备等军工能力建设瓶颈。

（七）加强企业管理和行业服务。

引导船舶企业深化内部改革，加强制度创新，夯实管理基础。加强成本和风险控制，增强应对市场变化和抵御市场风险能力。全面建立现代造船模式，加快信息化建设，推进精益造船，应用节能、节材技术和工艺，降低资源和能源消耗，提高发展质量和效益。加强船员人才队伍建设，建立严格的船员培养、选拔、考核、退出机制，提高船员综合素质，满足可持续发展需要。加强船舶行业管理，完善行业准入条件，加强国际新规范、新公约、新标准的宣传、培训和推广，发挥行业协会、专业机构等在行业自律、信息咨询、技术服务、检验检测、宣传培训等方面的重要作用。

四、支持政策

（一）鼓励老旧运输船舶提前报废更新。

调整延续实施促进老旧运输船舶和单壳油轮提前报废更新政策至2015年12月31日。鼓励老旧远洋、沿海运输船舶提前报废并建造符合国际新规范、新公约、新标准要求的绿色环保型船舶。

（二）支持行政执法、公务船舶建造和渔船更新改造。

支持海上行政执法船舶以及救助打捞、资源调查、科学考察等公务船舶建造，支持航海保障设施、设备的配备，支持海洋渔船更新改造，满足船舶建造和更新改造资金需求。

（三）鼓励开展船舶买方信贷业务。

鼓励金融机构加大船舶出口买方信贷资金投放，对在国内骨干船厂订造船舶和海洋工程装备的境外船东提供出口买方信贷。鼓励银行业金融机构积极拓展多元化融资渠道，通过多种方式募集资金。

（四）加大信贷融资支持和创新金融支持政策。

鼓励金融机构按照商业原则，做好对在国内订造船舶且船用柴油机、曲轴在国内采购的船东的融资服务，加大对船舶企业兼并重组、海外并购以及中小船厂业务转型和产品结构调整的信贷融资支持。研究开展骨干船舶企业贷款证券化业务。积极引导和支持骨干船舶企业发行非金融企业债务融资工具、企业债券等。积极利用出口信用保险支持船舶出口。优化船舶出口买方信贷保险政策，创新担保方式，简化办理流程。鼓

励有条件的地方开展船舶融资租赁试点。

（五）加强企业技术进步和技术改造。

引导企业加大科研开发和技术改造投入，增强高技术船舶、海洋工程装备创新能力，开展生产工艺流程改造，加强高技术船舶、海洋工程装备、船用设备专业化能力建设，以及技术引进、消化吸收再创新和填补国内空白的产业化项目建设。

（六）控制新增产能，支持产能结构调整。

地方各级人民政府及其有关部门不得以任何名义核准、备案新增产能的造船、修船和海洋工程装备基础设施（船台、船坞、舾装码头）项目，国土、交通、环保等部门不得办理土地和岸线供应、环评审批等相关业务，金融机构不得提供任何形式的新增授信支持。地方各级人民政府要立即组织对船舶行业违规在建项目进行认真清理，对未批先建、边批边建、越权核准的违规项目，尚未开工建设的，不准开工，正在建设的项目，要停止建设；国土、交通、环保部门和金融机构依法依规进行处理。对停建的违规在建项目，按照谁违规谁负责的原则，做好债务、人员安置等善后工作，区分不同情况，采取相应的措施，进行分类处理。对已经建成的违规产能，根据有关法律法规和行业准入条件等进行处理。在满足总量调控、布局规划、兼并重组等要求的条件下，推动整合提升大型基础设施能力。加快淘汰落后产能，支持企业转型转产。

五、实施保障

各地区、各部门、各单位要进一步提高对化解产能过剩矛盾、加快结构调整、促进转型升级、保持船舶工业持续健康发展重要性和紧迫性的认识，加强组织领导，抓好工作落实。

国务院各有关部门要加强沟通，密切配合，尽快制订和完善各项配套政策措施，切实做好有关指导和服务工作。各有关地区要按照本实施方案确定的目标、任务和政策措施，结合实际抓紧制订具体落实方案，确保按时完成各项任务目标。实施过程中出现的新情况、新问题及时反馈发展改革委等有关部门。

# EXHIBIT 29

# Several Opinions of the State Council on Promoting the Healthy Development of the Shipping Industry

Guofa [2014] No. 32

The people's governments of all provinces, autonomous regions, and municipalities directly under the Central Government, all ministries and commissions of the State Council, and all agencies directly under the State Council:

The maritime industry is an important basic industry for economic and social development. It plays an important role in safeguarding national maritime rights and interests and economic security, promoting the development of foreign trade, and promoting industrial transformation and upgrading. In recent years, my country's maritime industry has developed rapidly and made remarkable achievements. At the same time, it should also be noted that the current development of the maritime industry cannot fully meet the needs of economic and social development. There are still unclear strategic positioning and development goals, unsatisfactory systems and mechanisms, unreasonable structures, imperfect supporting measures, and low operational management levels. Problems such as weak core competitiveness. Accelerating the healthy development of the maritime industry is of great significance to stabilizing growth, promoting reform, adjusting structure, and benefiting people's livelihood. In order to further improve relevant work, the following opinions are hereby put forward:

**1. Overall requirements**

(1) Guiding ideology. Guided by Deng Xiaoping Theory, the important thought of "Three Represents" and the Scientific Outlook on Development, we will thoroughly implement the spirit of the 18th National Congress of the Communist Party of China and the Second and Third Plenary Sessions of the 18th Central Committee of the Communist Party of China, conscientiously implement the decisions and arrangements of the Party Central Committee and the State Council, and adhere to Reform and innovation should be integrated into all aspects of the development of the maritime industry, with scientific development as the theme, transformation of development methods as the main line, promotion of the healthy development of the maritime industry and building a strong maritime country as the goal, and cultivating

international competitiveness as the core and ensuring Provide strong support for national economic security and maritime rights and interests, and enhance overall national strength.

(2) Basic principles.

To ensure economic security and safeguard national interests. From the perspective of safeguarding national interests, we attach great importance to it, make overall plans, and implement comprehensive policies to establish a strong maritime fleet to serve the overall economic and social development and ensure national economic security.

Deepen reform and optimize structure. Deepen the reform of the shipping industry's institutional mechanisms, improve the legal person governance structure of shipping enterprises, innovate development models, optimize the organizational structure, capacity structure and transportation structure, and promote the sustainable development of the shipping industry.

Business entities and government guidance. Follow the development laws of the maritime industry, give full play to the decisive role of the market in resource allocation, better utilize the role of the government, learn from international experience, improve supporting policies related to the development of the maritime industry, and cultivate and enhance core competitiveness.

Comprehensive promotion and coordinated development. Give full play to the enthusiasm of all parties, form synergy, deepen cooperation between the maritime industry and related industries, and create a collaborative, complementary, mutually beneficial and win-win development environment.

(3) Development goals. In accordance with the requirements of building a moderately prosperous society in all respects, by 2020, a modern maritime transportation system that is safe, convenient, efficient, green, and internationally competitive will be basically established to meet the needs of the safe operation of the national economy and the development of foreign trade.

——Guarantee economic and social development. Global shipping services continue to expand, fleet size and port layout planning are moderately advanced, key material transportation support capabilities are significantly improved, and comparative advantages in the comprehensive transportation system are further developed.

——International competitiveness has been significantly improved. The export volume of maritime service trade has increased significantly, import and export have developed in a balanced manner, and the scale of maritime service trade ranks among the top in the world; a brand shipping enterprise, a port construction and operator, and a global logistics operating entity

with strong international competitiveness have been formed, and have been basically established with international influence powerful shipping center.

——The status in international maritime affairs continues to improve.

**2. Key tasks**

(4) Optimize the structure of the maritime fleet. Build a specialized fleet of moderate scale, reasonable structure and advanced technology. Vigorously develop energy-saving, environmentally friendly, cost-effective ships, actively develop crude oil, liquefied natural gas, container, ro-ro, and special transportation fleets to improve the international competitiveness of container liner transportation. Orderly develop the dry bulk shipping fleet and cruise economy, consolidate the international advantageous position of dry bulk shipping, and cultivate a regional cruise shipping brand.

(5) Improve the global shipping network. Optimize the layout of ports and routes, actively participate in international shipping affairs and related infrastructure investment, construction and operation, and expand foreign trade cooperation. Strengthen the construction of the capacity to support important international shipping lanes, improve the transportation system for major cargo types such as coal, oil, ore, containers, and grain, vigorously develop rail-water combined transport, river-sea combined transport, and promote the construction of deep-water channels and collection and distribution transportation systems.

(6) Promote the transformation and upgrading of shipping enterprises. Improve the governance structure of shipping enterprises, change development concepts, and innovate technologies, products and services. Accelerate mergers and reorganizations, promote large-scale and professional operations, and enhance risk resistance and international competitiveness. While strengthening and optimizing the main business of shipping, we will appropriately carry out diversified operations. Implement the "going global" strategy and encourage Chinese-funded shipping companies to invest overseas and operate transnationally. Orderly develop small and medium-sized shipping enterprises and promote employment.

(7) Vigorously develop the modern shipping service industry. Promote the transformation and upgrading of the traditional shipping service industry, and accelerate the development of modern shipping service industries such as shipping finance, shipping transactions, information services, design consulting, technology research and development, and maritime arbitration.

Establish a market-oriented maritime transport development fund. Innovate shipping insurance, reduce financing costs and spread risks.

(8) Deepen the reform and opening up of the maritime industry. Deepen the reform of state-owned shipping enterprises, and actively develop mixed-ownership shipping enterprises with cross-shareholding and integrated development of state-owned capital, private capital, etc. Adhere to equal rules, equal rights, and equal opportunities, and guide and encourage qualified private enterprises to engage in shipping business. Steadily advance opening up to the outside world, and on the premise of controllable risks, steadily carry out pilot projects such as foreign investors establishing wholly-owned ship management companies and controlling joint venture shipping companies in the China (Shanghai) Pilot Free Trade Zone.

(9) Enhance the international competitiveness of the shipping industry. Guide the agglomeration of factors and industries, accelerate the construction of an international shipping transaction and pricing center, and build an international shipping center. Actively participate in the work of relevant international organizations, improve the ability and level of participating in the formulation of international conventions, rules, standards and norms, and establish the image of a responsible maritime power. Deepen bilateral and multilateral cooperation to safeguard the rights and interests of China's shipping industry and seafarers. Build a world-class ship inspection and maritime research and education institution.

(10) Promote safe and green development. Strengthen safety awareness, improve rules and regulations, implement responsibilities, and increase efforts to investigate hidden dangers. Improve the construction of the maritime emergency response system, improve safety supervision and emergency response capabilities, focus on improving maritime (water) search and rescue, marine oil spill monitoring and response capabilities, and further rationalize the safety supervision system. Strengthen the management of ship energy consumption and pollutant emissions, promote the promotion and application of energy-saving and emission-reduction technologies and clean energy in the maritime industry, and optimize the energy consumption structure.

### 3. Safeguard measures

(11) Improve the transportation guarantee mechanism. Strengthen the close cooperation and complementary advantages between shipping companies and cargo owners, promote the signing of long-term contracts, orderly develop joint ventures with capital as the link, and form a

stable relationship of risk sharing, mutual benefit and win-win. Strengthen departmental coordination and cooperation to improve the transportation support capacity of key materials such as crude oil, iron ore, liquefied natural gas, coal, and grain.

(12) Give full play to the supporting role of fiscal and taxation policies. Integrate various special funds to promote the adjustment of transportation capacity structure, energy conservation and emission reduction, and improvement of transportation efficiency. Learn from the experience of developed countries in the shipping industry to study and improve fiscal and taxation policies involving international shipping. Strengthen the implementation of current fiscal and taxation policies to ensure their implementation.

(13) Strengthen and improve industry management. Accelerate the promotion of legislation in the maritime industry, strengthen top-level design and strategic research, improve ship technology policies and standards, and do a good job in monitoring and early warning, supervision and inspection, and emergency response. Improve the market system that is unified, open, and competitive, and guide the orderly deployment and reasonable growth of transportation capacity. Strengthen the construction of integrity management system and improve service quality. Clean up and standardize administrative approval matters, optimize processes, and improve efficiency. Standardize the management of the seafarer labor market and dispatch agencies, and improve the mechanism for protecting the rights and interests of seafarers. Accelerate the construction of a single window system for joint inspection of inbound and outbound ships and promote port traffic facilitation.

(14) Strengthen scientific and technological innovation and talent team building. Increase investment in science and technology, education, information construction and other aspects of the maritime industry, and effectively improve independent innovation capabilities and education levels. Build a comprehensive information service platform for the maritime industry, promote resource sharing, and improve the level of intelligence. Improve the talent training system and mechanism in the maritime industry, strengthen the construction of seafarers, especially senior seafarers, and vigorously cultivate professional and international maritime talents.

**4. Organization and implementation**

(15) Relevant regions and departments must, in accordance with the requirements of this opinion, seek truth from facts, adapt measures to local conditions, and effectively strengthen the organization and leadership of various tasks to promote the healthy development of the maritime

industry. It is necessary to make overall plans, highlight key points, implement responsibilities, strengthen coordination and cooperation, and form synergy. It is necessary to formulate specific implementation plans as soon as possible, improve and refine relevant policies and measures, and do a solid job in various tasks to ensure effective results.

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State Council

August 15, 2014

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中华人民共和国中央人民政府
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首页 ＞ 信息公开 ＞ 国务院文件 ＞ 工业、交通 ＞ 水运　　　　字号：**默认** 大 超大　｜　打印 🖶 收藏 ☆ 留言 ✐ ｜

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|---|---|
| 索 引 号： 000014349/2014-00101 | 主题分类： 工业、交通\水运 |
| 发文机关： 国务院 | 成文日期： 2014年08月15日 |
| 标　　题： 国务院关于促进海运业健康发展的若干意见 | |
| 发文字号： 国发〔2014〕32号 | 发布日期： 2014年09月03日 |

## 国务院关于促进海运业健康发展的若干意见

国发〔2014〕32号

各省、自治区、直辖市人民政府，国务院各部委、各直属机构：

海运业是经济社会发展重要的基础产业，在维护国家海洋权益和经济安全、推动对外贸易发展、促进产业转型升级等方面具有重要作用。近年来，我国海运业发展迅速，成就显著。同时也要看到，当前海运业发展还不能完全适应经济社会发展的需要，仍然存在战略定位和发展目标不清晰、体制机制不顺、结构不合理、配套措施不完善、运营管理水平不高、核心竞争力较弱等问题。加快推动海运业健康发展，对稳增长、促改革、调结构、惠民生具有重要意义。为进一步做好相关工作，现提出以下意见：

一、总体要求

（一）指导思想。以邓小平理论、"三个代表"重要思想、科学发展观为指导，深入贯彻党的十八大和十八届二中、三中全会精神，认真落实党中央、国务院的各项决策部署，坚持把改革创新贯穿于海运业发展的各领域各环节，以科学发展为主题，以转变发展方式为主线，以促进海运业健康发展、建设海运强国为目标，以培育国际竞争力为核心，为保障国家经济安全和海洋权益、提升综合国力提供有力支撑。

（二）基本原则。

保障经济安全、维护国家利益。站在维护国家利益的高度，高度重视，统筹谋划，综合施策，建立保障有力的海运船队，服务经济社会发展全局，保障国家经济安全。

深化改革、优化结构。深化海运业体制机制改革，完善海运企业法人治理结构，创新发展模式，优化组织结构、运力结构和运输结构，促进海运业可持续发展。

企业主体、政府引导。遵循海运业发展规律，充分发挥市场在资源配置中的决定性作用，更好发挥政府作用，借鉴国际经验，完善海运业发展相关配套政策，培育和提升核心竞争力。

全面推进、协同发展。充分发挥各方面积极性，形成合力，深化海运业与相关产业的合作，营造协同互补、互利共赢的发展环境。

（三）发展目标。按照全面建成小康社会的要求，到2020年，基本建成安全、便捷、高效、绿色、具有国际竞争力的现代海运体系，适应国民经济安全运行和对外贸易发展需要。

——保障经济社会发展。全球海运服务不断拓展，船队规模和港口布局规划适度超前，重点物资运输保障能力显著提高，在综合交通运输体系中的比较优势进一步发挥。

——国际竞争力明显提升。海运服务贸易出口额明显增加，进出口平衡发展，海运服务贸易规模位居世界前列；形成具有较强国际竞争力的品牌海运企业、港口建设和运营商、全球物流经营主体，基本建成具有国际影响力的航运中心。

——在国际海运事务中的地位不断提高。

二、重点任务

（四）优化海运船队结构。建设规模适度、结构合理、技术先进的专业化船队。大力发展节能环保、经济高效船舶，积极发展原油、液化天然气、集装箱、滚装、特种运输船队，提高集装箱班轮运输国际竞争力。有序发展干散货运输船队和邮轮经济，巩固干散货运输国际优势地位，培育区域邮轮运输品牌。

（五）完善全球海运网络。优化港口和航线布局，积极参与国际海运事务及相关基础设施投资、建设和运营，扩大对外贸易合作。加强重要国际海运通道保障能力建设，完善煤炭、石油、矿石、集装箱、粮食等主要货类运输系统，大力发展铁水联运、江海联运，推进深水航道和集疏运体系建设。

（六）推动海运企业转型升级。完善海运企业治理结构，转变发展理念，创新技术、产品和服务。加快兼并重组，促进规模化、专业化经营，提升抗风险能力和国际竞争力。在做强做优海运主业的同时，适度开展多元化经营。实施"走出去"战略，鼓励中资海运企业对外投资和跨国经营。有序发展中小海运企业，促进就业。

（七）大力发展现代航运服务业。推动传统航运服务业转型升级，加快发展航运金融、航运交易、信息服务、设计咨询、科技研发、海事仲裁等现代航运服务业。建立市场化运作的海运发展基金。创新航运保险，降低融资成本，分散风险。

（八）深化海运业改革开放。深化国有海运企业改革，积极发展国有资本、民营资本等交叉持股、融合发展的混合所有制海运企业。坚持规则平等、权利平等、机会平等，引导和鼓励符合条件的民营企业从事海运业务。稳步推进对外开放，在风险可控前提下，在中国（上海）自由贸易试验区稳妥开展外商成立独资船舶管理公司、控股合资海运公司等试点。

（九）提升海运业国际竞争力。引导要素和产业集聚，加快建设国际海运交易和定价中心，打造国际航运中心。积极参与相关国际组织工作，提高参与制定国际公约、规则、标准和规范的能力和水平，树立负责任的海运大国形象。深化双边、多边合作，维护我海运和海员权益。建设国际一流的船舶检验和海运科研教育机构。

（十）推进安全绿色发展。强化安全意识，健全规章制度，落实责任，加大隐患排查力度。完善海运突发事件应急体系建设，提高安全监管和突发事件应急处置能力，着力提升海（水）上搜救、海上溢油等监测与处置能力，进一步理顺安全监管体制。加强船舶能源消耗和污染物排放管理，推动节能减排技术和清洁能源在海运业的推广应用，优化用能结构。

三、保障措施

（十一）健全运输保障机制。加强海运企业与货主的紧密合作、优势互补，推动签订长期合同，有序发展以资本为纽带的合资经营，形成风险共担、互利共赢的稳定关系。加强部门协调配合，提高原油、铁矿石、液化天然气、煤炭、粮食等重点物资的承运保障能

力。

（十二）**发挥财税政策支持作用。**整合各种专项资金，推动运力结构调整、节能减排和运输效能提升。借鉴海运业发达国家经验，研究完善涉及国际海运的财税政策。加大现行财税政策执行力度，确保落实到位。

（十三）**加强和改进行业管理。**加快推动海运业立法，强化顶层设计和战略研究，完善船舶技术政策和标准规范，做好监测预警、监督检查和应急处置等工作。完善统一开放、竞争有序的市场体系，引导运力有序投放和合理增长。强化诚信管理体系建设，提高服务质量。清理规范行政审批事项，优化流程，提高效率。规范海员劳务市场和派遣机构管理，健全海员权益保障机制。加快建设进出境船舶联合查验单一窗口系统，推进口岸通行便利化。

（十四）**强化科技创新和人才队伍建设。**加大对海运业科技、教育、信息化建设等方面的投入，切实提高自主创新能力和教育水平。构建海运业综合信息服务平台，推进资源共享，提高智能化水平。完善海运业人才培养体制机制，加强海员特别是高级海员队伍建设，大力培养专业化、国际化海运人才。

四、组织实施

（十五）有关地区和部门要按照本意见的要求，实事求是，因地制宜，切实加强对推动海运业健康发展各项工作的组织领导。要统筹谋划，突出重点，落实责任，加强协调配合，形成合力。要尽快制定具体实施方案，完善和细化相关政策措施，扎实做好各项工作，确保取得实效。

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国务院

2014年8月15日

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解读

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# EXHIBIT 30

# Guiding Opinions of the State Council on Promoting Cooperation in International Production Capacity and Equipment Manufacturing

Guofa [2015] No. 30

People's governments of all provinces, autonomous regions, and municipalities directly under the Central Government, all ministries and commissions of the State Council, and all agencies directly under the State Council:

In recent years, China's equipment manufacturing industry has continued to develop rapidly, and its industrial scale, technological level, and international competitiveness have greatly improved. It has an important position in the world, with international production capacity and equipment Manufacturing cooperation has begun to bear fruit. At present, the adjustment of the global industrial structure is accelerating, infrastructure construction is in the ascendant, and developing countries are vigorously promoting the process of industrialization and urbanization, providing important opportunities for promoting international cooperation in production capacity and equipment manufacturing. In order to seize favorable opportunities, promote international cooperation in production capacity and equipment manufacturing, and achieve upgrading of the quality and efficiency of our country's economy, the following opinions are hereby put forward.

## 1. Significance

(1) Promoting international cooperation in production capacity and equipment manufacturing is a major measure to maintain China's economy at a medium-to-high speed and move towards a medium-to-high-end level. At present, my country's economic development has entered a new normal, which has put forward new requirements for transforming development methods and adjusting economic structure. Actively promoting international cooperation in production capacity and equipment manufacturing will help promote foreign cooperation in advantageous production capacity, form a new economic growth point in our country, help promote enterprises to continuously improve technology, quality and service levels, enhance overall quality and core competitiveness, and promote economic structural adjustment. and industrial transformation and upgrading to achieve an upgrade from product output to industrial output.

(2) Promoting international cooperation in production capacity and equipment

manufacturing is an important part of promoting a new round of high-level opening up and enhancing international competitiveness. At present, my country's opening up to the outside world has entered a new stage. Accelerating cooperation in international production capacity and equipment manufacturing such as railways and electric power will help coordinate domestic and international situations, improve the level of open economic development, and facilitate the implementation of the "Belt and Road Initiative" and China-Africa "Three Initiatives". major strategies such as "Network-One" cooperation.

(3) Promoting international cooperation in production capacity and equipment manufacturing is an important starting point for mutually beneficial cooperation. At present, global infrastructure construction has set off a new upsurge, and developing countries are accelerating their industrialization and urbanization processes. Actively carrying out cooperation in overseas infrastructure construction and production capacity investment will help deepen mutually beneficial cooperation between my country and relevant countries and promote local economic and social development.

**2. Overall requirements**

(4) Guiding ideology and overall ideas. Comprehensively implement the spirit of the 18th National Congress of the Communist Party of China and the Second, Third, and Fourth Plenary Sessions of the 18th Central Committee of the Communist Party of China, follow the decisions and arrangements of the Party Central Committee and the State Council, adapt to the new situation of economic globalization, focus on the new pattern of global economic development, and grasp the new situation of international economic cooperation. direction, combine China's industrial and financial advantages with foreign demand, take enterprises as the main body and market as the guide, strengthen government coordination, innovate foreign cooperation mechanisms, increase policy support, improve service guarantee systems, and vigorously promote international production capacity Cooperation with equipment manufacturing can effectively promote domestic economic development, industrial transformation and upgrading, expand new space for industrial development, create new driving forces for economic growth, and create a new situation for opening up to the outside world.

(5) Basic principles.

Adhere to enterprise leadership and government promotion. With enterprises as the main body and market as the guide, international production capacity and equipment manufacturing

cooperation should be carried out in accordance with international practices and commercial principles. Enterprises should make independent decisions, be responsible for their own profits and losses, and bear their own risks. The government has strengthened overall planning and coordination, formulated development plans, reformed management methods, improved facilitation levels, improved support policies, created a good environment, and created favorable conditions for enterprises to "go global."

Adhere to highlighting key points and advancing in an orderly manner. International production capacity and equipment manufacturing cooperation should focus on areas with strong manufacturing capabilities, high technical levels, obvious international competitive advantages, and demand in the international market. In the near future, the main direction will be Asian neighboring countries and African countries. According to the characteristics of different countries and industries, it will be promoted in an orderly manner through trade, project contracting, investment and other methods in a targeted manner.

Adhere to focusing on practical results, mutual benefit and win-win results. Promote China's equipment, technology, standards and services to "go global" and promote domestic economic development and industrial transformation and upgrading. Practice the correct concept of justice and benefit, fully consider the national conditions and actual needs of the host country, focus on mutually beneficial cooperation with local governments and enterprises, create good economic and social benefits, and achieve mutual benefit, win-win results, and common development.

Adhere to proactive and prudent measures to prevent and control risks. In accordance with the overall national economic diplomacy strategy, we will further strengthen our country's comparative advantages, and on the basis of fully understanding and demonstrating the political, economic and social conditions of relevant countries, actively plan and make reasonable arrangements, move forward in a powerful, orderly and effective manner, and prevent a sudden rise in Blindly enterprising and vicious competition, effectively prevent and control risks, and improve the effectiveness and level of international production capacity and equipment manufacturing cooperation.

(6) Main objectives. By 2020, we will strive to basically establish a production capacity cooperation mechanism with key countries, make significant progress in a number of key production capacity cooperation projects, and form a number of overseas production capacity

cooperation demonstration bases. The institutional mechanisms for promoting international production capacity and equipment manufacturing cooperation will be further improved, support policies will be more effective, and service support capabilities will be comprehensively improved. Form a group of key enterprises with international competitiveness and market development capabilities. The economic and social benefits of international cooperation in production capacity and equipment manufacturing have been further enhanced, and its role in promoting domestic economic development and industrial transformation and upgrading has been significantly enhanced.

### 3. Main tasks

(7) Overall tasks. We will regard developing countries that have a high degree of equipment and production capacity matching with China, a strong desire for cooperation, and good cooperation conditions and foundation as key countries, and actively explore the markets of developed countries, and gradually expand from one point to another. Consider steel, nonferrous metals, building materials, railways, electric power, chemicals, textiles, automobiles, communications, engineering machinery, aerospace, shipbuilding and ocean engineering as key industries, implement them in a classified manner, and advance them in an orderly manner.

(8) Based on domestic advantages, promote external production capacity cooperation in the steel and non-ferrous metal industries. Combined with the structural adjustment of the domestic steel industry, we will build iron-making, steel-making, steel-making and other steel production bases in key countries with good resource conditions, strong supporting capabilities, and large market potential through the export of complete sets of equipment, investment, acquisition, and contracted projects, and drive the Steel equipment is exported to the outside world. Combined with the development of overseas mineral resources, extend the downstream industrial chain, carry out smelting and deep processing of copper, aluminum, lead, zinc and other non-ferrous metals, and promote the export of complete sets of equipment.

(9) Carry out international cooperation on advantageous production capacity in the building materials industry based on local market demand. According to the needs of domestic industrial structure adjustment, give full play to the role of domestic industry backbone enterprises and engineering construction enterprises. In developing countries with market demand and insufficient production capacity, investment will be the main method, combining design, engineering construction, equipment supply, etc. In this way, we will build production lines for

cement, flat glass, building sanitary ceramics, new building materials, new housing, etc. to improve the industrial production capacity of the host country and increase local market supply.

(10) Accelerate the pace of "going global" for railways and expand the international market for rail transit equipment. Focusing on the promotion and implementation of surrounding railway interconnection, the construction of key regional railway networks in Africa, and high-speed railway projects, we will give full play to our comprehensive advantages in railway design, construction, equipment supply, operation, maintenance, and financing, and actively carry out a package of cooperation. Actively develop and implement urban rail transit projects and expand international cooperation on urban rail transit vehicles. Establish assembly, maintenance bases and R&D centers in key countries where conditions permit. Accelerate the integration of rail transit equipment enterprises and enhance the international operating capabilities and comprehensive strength of key enterprises.

(11) Vigorously develop and implement overseas power projects to enhance competitiveness in the international market. We will increase efforts to "go global" in electricity, actively explore the thermal power and hydropower markets in relevant countries, encourage participation in major power project cooperation in various ways, and expand the export scale of domestic thermal power and hydropower equipment and technology. Actively carry out exchanges and consultations with relevant countries in the field of nuclear power, promote cooperation on key projects, and promote the export of complete sets of nuclear power equipment and technology. Actively participate in the investment and construction of wind power and solar photovoltaic projects in relevant countries, and promote international cooperation in wind power and photovoltaic power generation capacity and equipment manufacturing. Actively carry out investment, construction and operation of overseas power grid projects to promote the export of power transmission and transformation equipment.

(12) Strengthen overseas resource development and promote overseas investment in key chemical fields. Give full play to domestic technology and production capacity advantages, strengthen resource development and industrial investment in developing countries with large market demand and good resource conditions, and build production lines for petrochemicals, fertilizers, pesticides, tires, and coal chemicals. Focusing on meeting local market demand, we will carry out intensive downstream chemical processing, extend the industrial chain, build a green production base, and drive the export of domestic complete sets of equipment.

(13) Give full play to competitive advantages and improve the level of international cooperation in the light textile industry. Give full play to the strong international competitive advantages of the light textile industry, rely on local agricultural products and animal husbandry resources to establish processing plants in countries where conditions permit, and invest in the construction of cotton spinning, chemical fiber, home appliances, etc. in countries with abundant labor resources, low production costs, and close to the target market. Food processing and other light textile industry projects will drive the export of equipment in related industries. In industrial parks with better conditions overseas, a light textile product processing base with upstream and downstream supporting and cluster-type development will be formed. Grasp the pace and scale of cooperation and promote positive interaction between international cooperation and domestic industrial transformation and upgrading.

(14) Accelerate the entry of independent brand cars into the international market by setting up factories overseas. Actively explore the automobile market in developing countries and promote the export of domestically produced large buses, trucks, small buses and light buses. Set up automobile production plants and assembly plants in countries with large market potential and strong industrial supporting facilities, establish local distribution networks and repair and maintenance centers, promote the export of independent brand automobiles and parts, and enhance brand influence. Encourage automobile companies to set up automobile technology and engineering R&D centers in developed countries in Europe and the United States, cooperate with foreign companies with strong technical strength, and improve the R&D and manufacturing technology level of independent brand automobiles.

(15) Promote innovation and upgrading and improve the international competitiveness of the information and communications industry. Give full play to the international competitive advantages of large communication and network equipment manufacturing enterprises, consolidate traditional advantageous markets, open up markets in developed countries, focus on users and be market-oriented, strengthen cooperation with local operators and group users, and strengthen design, research and development, and technical support. , operation and maintenance, and information security system construction to improve competitiveness in the global communications and network equipment market. Encourage telecom operators and Internet companies to "go global" through mergers and acquisitions, investment and construction, and facility operations, build and operate information networks, data centers and

other infrastructure overseas, and cooperate with communications and network manufacturing companies. Encourage enterprises to set up R&D institutions overseas to use global intellectual resources to strengthen the research and development of new generation information technology.

(16) Integrate superior resources and promote construction machinery and other manufacturing companies to improve their global business networks. Increase the market development efforts of manufacturing enterprises such as engineering machinery, agricultural machinery, petroleum equipment, and machine tools, actively carry out financial leasing and other businesses, and expand exports in conjunction with the implementation of major overseas construction projects. Encourage enterprises to invest and build factories in countries with favorable conditions, improve the construction of operation and maintenance service networks, and improve comprehensive competitiveness. Support enterprises to cooperate with foreign enterprises with brand, technology and market advantages, encourage the establishment of R&D centers in developed countries, and improve the brand influence and technical level of products of machinery manufacturing enterprises.

(17) Strengthen foreign cooperation and promote the export of aerospace equipment. Vigorously explore the aviation market in developing countries, explore the establishment of joint venture aviation operating enterprises in countries with better conditions in Asia and Africa, build logistics support bases, gradually form a regional air transport network, create a number of regional aviation centers that radiate to neighboring countries, and accelerate cooperation with relevant The country carries out aviation cooperation to promote the export of domestically produced aircraft. Actively explore the aviation market in developed countries and promote the export of general aircraft. Support advantageous aviation companies to invest in international advanced manufacturing and R&D companies, establish overseas R&D centers, and improve the quality and level of domestically produced aircraft. Strengthen space cooperation with developing countries and actively promote external launch services. Strengthen cooperation with developed countries in satellite design, parts manufacturing, and payload development, and support qualified enterprises to invest in foreign enterprises with distinctive advantages.

(18) Improve the level of products and services, and develop high-end markets for ships and ocean engineering equipment. Give full play to the advantages of ship production capacity, while consolidating the low-end ship market, vigorously develop the high-end ship and marine engineering equipment market, support powerful enterprises to invest in the construction of

factories, establish overseas R&D centers and sales service bases, and improve the research and development and sales of high-end ship products. Manufacturing capacity to enhance the international competitiveness of products such as deep-sea semi-submersible drilling platforms, floating production storage and offloading devices, offshore engineering vessels, and liquefied natural gas vessels.

**4. Improve the ability and level of enterprises to "go global"**

(19) Give full play to the role of enterprises as market players. All types of enterprises, including private enterprises, must combine their own development needs and advantages, adhere to the market orientation, follow business principles and international practices, clarify their work priorities, formulate implementation plans, actively carry out international production capacity and equipment manufacturing cooperation, and expand new international development opportunities for us. Make a positive contribution to space.

(20) Expand methods of external cooperation. While continuing to give full play to the advantages of traditional project contracting, we will give full play to our financial and technological advantages and actively carry out cooperation such as "project contracting + financing" and "project contracting + financing + operation". Conditional projects are encouraged to adopt BOT, PPP and other methods. Vigorously explore international markets and carry out equipment manufacturing cooperation. Cooperate with qualified countries to form synergy and jointly develop third-party markets. International production capacity cooperation must flexibly adopt various methods such as investment, engineering construction, technical cooperation, and technical assistance based on the actual conditions and characteristics of the host country to cooperate with the host country's government and enterprises.

(21) Innovate business operation models. Actively participate in the construction of overseas industrial agglomerations, economic and trade cooperation zones, industrial parks, special economic zones and other cooperation parks, create a good regional investment environment with relatively complete infrastructure, supporting legal policies and agglomeration and radiation effects, and guide domestic enterprises to go overseas in groups and in clusters "go out". Borrow ships to go to sea through the Internet, and use the overseas markets and marketing network platforms of Internet companies to open up new business channels. By cooperating with large enterprises to go global, large enterprises are encouraged to take the lead in entering the international market, and a group of small and medium-sized supporting enterprises are driven to

"go global" to build strategic alliances across the entire industry chain and form comprehensive competitive advantages.

(22) Improve overseas business capabilities and standards. Carefully analyze and evaluate the host country's politics, economy, law, and market, strengthen project feasibility research and demonstration, establish a benefit and risk assessment mechanism, focus on economics and sustainability, improve internal investment decision-making procedures, and implement supporting conditions in all aspects, carefully organized and implemented. Make risk response plans to properly prevent and resolve various risks in project execution. We are encouraged to take root in the local area and commit to long-term development, strive to improve the level of localization in corporate employment, procurement, etc., strengthen the training of local employees, and actively promote local employment and economic development.

(23) Regulate the overseas business activities of enterprises. Enterprises must conscientiously abide by the laws and regulations of the host country, respect local culture, religion and customs, protect the legitimate rights and interests of employees, protect intellectual property rights, adhere to honest operations, and resist commercial bribery. Pay attention to resource conservation and environmental protection, assume social responsibilities, actively contribute to local economic and social development, and achieve mutual benefit and common development with the host country. Establish an assessment mechanism for enterprises' overseas business activities and promote the construction of a credit system. Strengthen coordination and cooperation among enterprises, abide by the market order of fair competition, and resolutely prevent disorderly and vicious competition.

**5. Strengthen government guidance and promotion**

(24) Strengthen overall guidance and coordination. According to the national economic and social development master plan, combined with the "Belt and Road" construction, peripheral infrastructure interconnection, China-Africa cooperation in "three networks and one industrialization", we will formulate an international production capacity cooperation plan, clarify key directions, and guide enterprises to have priorities, goals, and carry out external work in an organized manner.

(25) Improve the external cooperation mechanism. Give full play to the role of existing multilateral and bilateral high-level cooperation mechanisms, establish production capacity cooperation mechanisms with key countries, strengthen intergovernmental exchanges and

coordination and cooperation with relevant international and regional organizations, build a platform for external cooperation between governments and enterprises, and promote international cooperation in production capacity and equipment manufacturing Make positive progress. Improve cooperation mechanisms with relevant countries in investment protection, finance, taxation, customs, personnel exchanges, etc., and provide all-round support and comprehensive guarantee for international production capacity and equipment manufacturing cooperation.

(26) Reform the foreign cooperation management system. We will further streamline administration and delegate power, deepen the reform of the overseas investment management system, cancel the approval of overseas investment, and except for sensitive investments, all overseas investment projects and established enterprises will be subject to informed filing, and supervision during and after the event will be done. Improve the overseas investment management methods for central and local state-owned enterprises, and shift from focusing on ex-ante management to strengthening in-process and ex-post supervision. Improve the management of foreign contracted projects and create convenient conditions for enterprises to carry out foreign cooperation.

(27) Do a good job in diplomatic services. The diplomatic departments and embassies and consulates stationed abroad should further do a good job in the work of the host country's government and all sectors of society, strengthen guidance, coordination and services to our enterprises, and provide timely and effective information on country conditions, cooperation intentions and cooperation projects of relevant countries, etc. Carry out risk prevention and consular protection work.

(28) Establish a comprehensive information service platform. Improve the information sharing system, guide relevant institutions to establish public information platforms, comprehensively integrate information resources such as governments, business associations, enterprises, financial institutions, intermediary service agencies, etc., timely release relevant national "going out" policies, as well as comprehensive and accurate foreign investment environment, Industrial development and policies, market demand, project cooperation and other information provide comprehensive information support and services for enterprises to "go global".

(29) Actively play the role of local governments. Local governments should formulate

targeted work plans based on the industrial development, structural adjustment and production capacity of the region, and guide and encourage qualified enterprises in the region to actively and orderly promote international production capacity and equipment manufacturing cooperation.

**6. Increase policy support**

(30) Improve fiscal and taxation support policies. Speed up the negotiation and signing of double taxation avoidance agreements with relevant countries to achieve full coverage of key countries.

(31) Give full play to the role of preferential loans. Based on the needs of international production capacity and equipment manufacturing cooperation, support enterprises in participating in large-scale complete equipment exports, engineering contracting and large-scale investment projects.

(32) Increase financial support. Give full play to the active role of policy banks and development financial institutions, and increase financing support for international production capacity and equipment manufacturing cooperation through syndicated loans, export credits, project financing and other methods. Commercial financial institutions are encouraged to provide financing support for international production capacity and equipment manufacturing cooperation projects, innovate financial products, and improve financial services in accordance with the principles of commercial sustainability and risk controllability. Encourage financial institutions to carry out PPP project loan business to enhance the comprehensive competitiveness of my country's "going out" of major equipment and production capacity such as high-speed rail and nuclear power. Domestic financial institutions are encouraged to improve their ability to dispose of overseas assets or interests, and "going global" enterprises are supported to obtain loans using overseas assets and equity, mineral rights and other interests as collateral to improve their financing capabilities. Strengthen regulatory coordination with relevant countries, lower and eliminate barriers to entry, support Chinese financial institutions in accelerating the layout of overseas branches and service outlets, and improve financing service capabilities. Strengthen docking and coordination with international financial institutions and jointly carry out cooperation on major overseas projects.

(33) Give full play to the positive role of RMB internationalization. Support the China Development Bank, the Export-Import Bank of China and domestic commercial banks in issuing RMB bonds overseas and using them overseas, and remove geographical restrictions on the

issuance of RMB bonds overseas. Accelerate the construction of the RMB cross-border payment system, improve the RMB global clearing service system, and facilitate enterprises to use RMB for cross-border cooperation and investment. Encourage the use of RMB pricing and settlement in overseas investment, foreign contracted projects, export of large complete sets of equipment, bulk commodity trade and overseas economic and trade cooperation zones to reduce the risk of currency mismatch in "going global". Promote the use of RMB in the construction of the "Belt and Road Initiative" and expand the channels for the return of RMB in an orderly manner.

(34) Expand sources of financing funds. Support qualified enterprises and financial institutions to raise funds in domestic and overseas markets through the issuance of stocks, bonds, and asset securitization products for "going global" projects. Implement a registration system for overseas bond issuance to raise low-cost foreign exchange funds to better support the capital needs of enterprises for "going global".

(35) Increase sources of equity investment. Give full play to the role of China Investment Corporation and establish an equity investment company with global business coverage (i.e., China Investment Overseas Direct Investment Company). Give full play to the role of the Silk Road Fund, China-Africa Fund, ASEAN Fund, China Investment Overseas Direct Investment Company, etc., and actively support international production capacity and equipment manufacturing cooperation projects through equity investment, debt financing, etc. Domestic private equity fund management institutions are encouraged to "go global" and give full play to their role in supporting enterprises to "go global" in greenfield investments, M&A investments, etc.

(36) Strengthen and improve export credit insurance. Establish long-term institutional arrangements for export credit insurance to support large-scale complete sets of equipment, and ensure that projects with controllable risks are fully insured. Give full play to the risk protection role of medium- and long-term export credit insurance and expand insurance coverage to effectively support the export of large-scale complete sets of equipment and promote the "going out" of advantageous production capacity.

**7. Strengthen service guarantee and risk prevention and control**

(37) Accelerate the international promotion of Chinese standards. Improve the internationalization level of Chinese standards and accelerate the process of international mutual recognition of certification and accreditation. Actively participate in the formulation of

international standards and regional standards, and promote mutual recognition of standards with major trading countries. Complete the translation of technical standards into foreign languages for industries such as high-speed rail, electric power, construction machinery, chemicals, nonferrous metals, and building materials as soon as possible, increase the international promotion of Chinese standards, and promote mutual recognition and acceptance of relevant product certification and accreditation results.

(38) Strengthen the role of industry associations and intermediary agencies. Encourage industry associations, chambers of commerce, and intermediaries to play an active role in providing market-oriented, socialized, and international legal, accounting, taxation, investment, consulting, intellectual property, risk assessment, and certification services for enterprises to "go global." Establish a management system that combines industry self-discipline and government supervision, improve intermediary service practice rules and management systems, improve the service quality of intermediary agencies, and strengthen the responsibilities of intermediary service agencies.

(39) Accelerate the construction of talent team. Increase the training of transnational business and management talents, adhere to the combination of enterprise self-cultivation and government support, and cultivate a group of comprehensive transnational business and management talents. Taking the cultivation of innovative scientific and technological talents as the guide, we will accelerate the construction of professional and technical talents in key industries. Increase the introduction of high-level overseas talents, establish an international talent exchange platform, and provide talent support for international production capacity and equipment manufacturing cooperation.

(40) Do a good job in policy interpretation. Actively leverage the role of domestic traditional media and new Internet media to provide timely and accurate information. Strengthen exchanges and cooperation with international mainstream media, communicate well with local media, think tanks, and non-governmental organizations in the host country, explain the cooperation concepts of equal cooperation, mutual benefit, and common development, and actively promote my country's equipment products, technologies, standards, and advantages industry.

(41) Strengthen risk prevention and safety guarantees. Establish and improve risk assessment and prevention and control mechanisms to support "going global", regularly publish

major country risk assessment reports, timely warn and notify relevant countries of major political, economic and social risks, propose response plans and preventive measures, and properly respond to international production capacity and Equipment manufacturing cooperation has major risks. Comprehensive use of diplomatic, economic, legal and other means to effectively safeguard the legitimate rights and interests of Chinese enterprises overseas. Give full play to the role of the inter-ministerial joint conference system on the security protection of Chinese citizens and institutions abroad, improve the overseas security risk early warning mechanism and emergency response mechanism for security emergencies, promptly and properly resolve and handle various security issues, and effectively protect the overseas security of citizens and enterprises. Safety.

State Council

May 13, 2015

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| 索 引 号： | 000014349/2015-00075 | 主题分类： | 国土资源、能源\其他 |
| 发文机关： | 国务院 | 成文日期： | 2015年05月13日 |
| 标　　题： | 国务院关于推进国际产能和装备制造合作的指导意见 | | |
| 发文字号： | 国发〔2015〕30号 | 发布日期： | 2015年05月16日 |

# 国务院关于推进国际产能和装备制造合作的指导意见

国发〔2015〕30号

各省、自治区、直辖市人民政府，国务院各部委、各直属机构：

近年来，我国装备制造业持续快速发展，产业规模、技术水平和国际竞争力大幅提升，在世界上具有重要地位，国际产能和装备制造合作初见成效。当前，全球产业结构加速调整，基础设施建设方兴未艾，发展中国家大力推进工业化、城镇化进程，为推进国际产能和装备制造合作提供了重要机遇。为抓住有利时机，推进国际产能和装备制造合作，实现我国经济提质增效升级，现提出以下意见。

一、重要意义

（一）推进国际产能和装备制造合作，是保持我国经济中高速增长和迈向中高端水平的重大举措。当前，我国经济发展进入新常态，对转变发展方式、调整经济结构提出了新要求。积极推进国际产能和装备制造合作，有利于促进优势产能对外合作，形成我国新的经济增长点，有利于促进企业不断提升技术、质量和服务水平，增强整体素质和核心竞争力，推动经济结构调整和产业转型升级，实现从产品输出向产业输出的提升。

（二）推进国际产能和装备制造合作，是推动新一轮高水平对外开放、增强国际竞争优势的重要内容。当前，我国对外开放已经进入新阶段，加快铁路、电力等国际产能和装备制造合作，有利于统筹国内国际两个大局，提升开放型经济发展水平，有利于实施"一带一路"、中非"三网一化"合作等重大战略。

（三）推进国际产能和装备制造合作，是开展互利合作的重要抓手。当前，全球基础设施建设掀起新热潮，发展中国家工业化、城镇化进程加快，积极开展境外基础设施建设和产能投资合作，有利于深化我国与有关国家的互利合作，促进当地经济和社会发展。

二、总体要求

（四）指导思想和总体思路。全面贯彻落实党的十八大和十八届二中、三中、四中全会精神，按照党中央、国务院决策部署，适应经济全球化新形势，着眼全球经济发展新格局，把握国际经济合作新方向，将我国产业优势和资金优势与国外需求相结合，以企业为主体，以市场为导向，加强政府统筹协调，创新对外合作机制，加大政策支持力度，健全服务保障体系，大力推进国际产能和装备制造合作，有力促进国内经济发展、产业转型升级，拓展产业发展新空间，打造经济增长新动力，开创对外开放新局面。

（五）基本原则。

坚持企业主导、政府推动。以企业为主体、市场为导向，按照国际惯例和商业原则开展国际产能和装备制造合作，企业自主决策、自负盈亏、自担风险。政府加强统筹协调，制定发展规划，改革管理方式，提高便利化水平，完善支持政策，营造良好环境，为企业"走出去"创造有利条件。

坚持突出重点、有序推进。国际产能和装备制造合作要选择制造能力强、技术水平高、国际竞争优势明显、国际市场有需求的领域为重点，近期以亚洲周边国家和非洲国家为主要方向，根据不同国家和行业的特点，有针对性地采用贸易、承包工程、投资等多种方式有序推进。

坚持注重实效、互利共赢。推动我装备、技术、标准和服务"走出去"，促进国内经济发展和产业转型升级。践行正确义利观，充分考虑所在国国情和实际需求，注重与当地政府和企业互利合作，创造良好的经济和社会效益，实现互利共赢、共同发展。

坚持积极稳妥、防控风险。根据国家经济外交整体战略，进一步强化我国比较优势，在充分掌握和论证相关国家政治、经济和社会情况基础上，积极谋划、合理布局，有力有序有效地向前推进，防止一哄而起、盲目而上、恶性竞争，切实防控风险，提高国际产能和装备制造合作的效用和水平。

（六）主要目标。力争到2020年，与重点国家产能合作机制基本建立，一批重点产能合作项目取得明显进展，形成若干境外产能合作示范基地。推进国际产能和装备制造合作的体制机制进一步完善，支持政策更加有效，服务保障能力全面提升。形成一批有国际竞争力和市场开拓能力的骨干企业。国际产能和装备制造合作的经济和社会效益进一步提升，对国内经济发展和产业转型升级的促进作用明显增强。

三、主要任务

（七）总体任务。将与我装备和产能契合度高、合作愿望强烈、合作条件和基础好的发展中国家作为重点国别，并积极开拓发达国家市场，以点带面，逐步扩展。将钢铁、有色、建材、铁路、电力、化工、轻纺、汽车、通信、工程机械、航空航天、船舶和海洋工程等作为重点行业，分类实施，有序推进。

（八）立足国内优势，推动钢铁、有色行业对外产能合作。结合国内钢铁行业结构调整，以成套设备出口、投资、收购、承包工程等方式，在资源条件好、配套能力强、市场潜力大的重点国家建设炼铁、炼钢、钢材等钢铁生产基地，带动钢铁装备对外输出。结合境外矿产资源开发，延伸下游产业链，开展铜、铝、铅、锌等有色金属冶炼和深加工，带动成套设备出口。

（九）结合当地市场需求，开展建材行业优势产能国际合作。根据国内产业结构调整的需要，发挥国内行业骨干企业、工程建设企业的作用，在有市场需求、生产能力不足的发展中国家，以投资方式为主，结合设计、工程建设、设备供应等多种方式，建设水泥、平板玻璃、建筑卫生陶瓷、新型建材、新型房屋等生产线，提高所在国工业生产能力，增加当地市场供应。

（十）加快铁路"走出去"步伐，拓展轨道交通装备国际市场。以推动和实施周边铁路互联互通、非洲铁路重点区域网络建设及高速铁路项目为重点，发挥我在铁路设计、施工、装备供应、运营维护及融资等方面的综合优势，积极开展一揽子合作。积极开发和实施城市轨道交通项目，扩大城市轨道交通车辆国际合作。在有条件的重点国家建立装配、维修基地和研发中心。加快轨道交通装备企业整合，提升骨干企业国际经营能力和综合实力。

（十一）大力开发和实施境外电力项目，提升国际市场竞争力。加大电力"走出去"力度，积极开拓有关国家火电和水电市场，鼓励以多种方式参与重大电力项目合作，扩大国产火电、水电装备和技术出口规模。积极与有关国家开展核电领域交流与磋商，推进重点项目合作，带动核电成套装备和技术出口。积极参与有关国家风电、太阳能光伏项目的投资和建设，带动风电、光伏发电国际产能和装备制造合作。积极开展境外电网项目投资、建设和运营，带动输变电设备出口。

（十二）加强境外资源开发，推动化工重点领域境外投资。充分发挥国内技术和产能优势，在市场需求大、资源条件好的发展中国家，加强资源开发和产业投资，建设石化、化肥、农药、轮胎、煤化工等生产线。以满足当地市场需求为重点，开展化工下游精深加工，延伸产业链，建设绿色生产基地，带动国内成套设备出口。

（十三）发挥竞争优势，提高轻工纺织行业国际合作水平。发挥轻纺行业较强的国际竞争优势，在有条件的国家，依托当地农产品、畜牧业资源建立加工厂，在劳动力资源丰富、生产成本低、靠近目标市场的国家投资建设棉纺、化纤、家电、食品加工等轻纺行业项目，带动相关行业装备出口。在境外条件较好的工业园区，形成上下游配套、集群式发展的轻纺产品加工基地。把握好合作节奏和尺度，推动国际合作与国内产业转型升级良性互动。

（十四）通过境外设厂等方式，加快自主品牌汽车走向国际市场。积极开拓发展中国家汽车市场，推动国产大型客车、载重汽车、小型客车、轻型客车出口。在市场潜力大、产业配套强的国家设立汽车生产厂和组装厂，建立当地分销网络和维修维护中心，带动自主品牌汽车整车及零部件出口，提升品牌影响力。鼓励汽车企业在欧美发达国家设立汽车技术和工程研发中心，同国外技术实力强的企业开展合作，提高自主品牌汽车的研发和制造技术水平。

（十五）推动创新升级，提高信息通信行业国际竞争力。发挥大型通信和网络设备制造企业的国际竞争优势，巩固传统优势市场，开拓发达国家市场，以用户为核心，以市场为导向，加强与当地运营商、集团用户的合作，强化设计研发、技术支持、运营维护、信息安全的体系建设，提高在全球通信和网络设备市场的竞争力。鼓励电信运营企业、互联网企业采取兼并收购、投资建设、设施运营等方式"走出去"，在海外建设运营信息网络、数据中心等基础设施，与通信和网络制造企业合作。鼓励企业在海外设立研发机构，利用全球智力资源，加强新一代信息技术的研发。

（十六）整合优势资源，推动工程机械等制造企业完善全球业务网络。加大工程机械、农业机械、石油装备、机床工具等制造企业的市场开拓力度，积极开展融资租赁等业务，结合境外重大建设项目的实施，扩大出口。鼓励企业在有条件的国家投资建厂，完善运营维护服务网络建设，提高综合竞争能力。支持企业同具有品牌、技术和市场优势的国外企业合作，鼓励在发达国家设立研发中心，提高机械制造企业产品的品牌影响力和技术水平。

（十七）加强对外合作，推动航空航天装备对外输出。大力开拓发展中国家航空市场，在亚洲、非洲条件较好的国家探索设立合资航空运营企业，建设后勤保障基地，逐步形成区域航空运输网，打造若干个辐射周边国家的区域航空中心，加快与有关国家开展航空合作，带动国产飞机出口。积极开拓发达国家航空市场，推动通用飞机出口。支持优势航空企业投资国际先进制造和研发企业，建立海外研发中心，提高国产飞机的质量和水平。加强与发展中国家航天合作，积极推进对外发射服务。加强与发达国家在卫星设计、零部件制造、有效载荷研制等方面的合作，支持有条件的企业投资国外特色优势企业。

（十八）提升产品和服务水平，开拓船舶和海洋工程装备高端市场。发挥船舶产能优势，在巩固中低端船舶市场的同时，大力开拓高端船舶和海洋工程装备市场，支持有实力的企业投资建厂、建立海外研发中心及销售服务基地，提高船舶高端产品的研发和制造能力，提升深海半潜式钻井平台、浮式生产储卸装置、海洋工程船舶、液化天然气船等产品国际竞争力。

四、提高企业"走出去"能力和水平

（十九）发挥企业市场主体作用。各类企业包括民营企业要结合自身发展需要和优势，坚持以市场为导向，按照商业原则和国际惯例，明确工作重点，制定实施方案，积极开展国际产能和装备制造合作，为我拓展国际发展新空间作出积极贡献。

（二十）拓展对外合作方式。在继续发挥传统工程承包优势的同时，充分发挥我资金、技术优势，积极开展"工程承包+融资"、"工程承包+融资+运营"等合作，有条件的项目鼓励采用BOT、PPP等方式，大力开拓国际市场，开展装备制造合作。与具备条件的国家合作，形成合力，共同开发第三方市场。国际产能合作要根据所在国的实际和特点，灵活采取投资、工程建设、技术合作、技术援助等多种方式，与所在国政府和企业开展合作。

（二十一）创新商业运作模式。积极参与境外产业集聚区、经贸合作区、工业园区、经济特区等合作园区建设，营造基础设施相对完善、法律政策配套的具有集聚和辐射效应的良好区域投资环境，引导国内企业抱团出海、集群式"走出去"。通过互联网借船出海，借助互联网企业境外市场、营销网络平台，开辟新的商业渠道。通过以大带小合作出海，鼓励大企业率先走向国际市场，带动一批中小配套企业"走出去"，构建全产业链战略联盟，形成综合竞争优势。

（二十二）提高境外经营能力和水平。认真做好所在国政治、经济、法律、市场的分析和评估，加强项目可行性研究和论证，建立效益风险评估机制，注重经济性和可持续性，完善内部投资决策程序，落实各方面配套条件，精心组织实施。做好风险应对预案，妥善防范和化解项目执行中的各类风险。鼓励扎根当地、致力于长期发展，在企业用工、采购等方面努力提高本地化水平，加强当地员工培训，积极促进当地就业和经济发展。

（二十三）规范企业境外经营行为。企业要认真遵守所在国法律法规，尊重当地文化、宗教和习俗，保障员工合法权益，做好知识产权保护，坚持诚信经营，抵制商业贿赂。注重资源节约利用和生态环境保护，承担社会责任，为当地经济和社会发展积极作贡献，实现与所在国的互利共赢、共同发展。建立企业境外经营活动考核机制，推动信用制度建设。加强企业间的协调与合作，遵守公平竞争的市场秩序，坚决防止无序和恶性竞争。

五、加强政府引导和推动

（二十四）加强统筹指导和协调。根据国家经济社会发展总体规划，结合"一带一路"建设、周边基础设施互联互通、中非"三网一化"合作等，制定国际产能合作规划，明确重点方向，指导企业有重点、有目标、有组织地开展对外工作。

（二十五）完善对外合作机制。充分发挥现有多双边高层合作机制的作用，与重点国家建立产能合作机制，加强政府间交流协调以及与相关国际和地区组织的合作，搭建政府和企业对外合作平台，推动国际产能和装备制造合作取得积极进展。完善与有关国家在投资保护、金融、税收、海关、人员往来等方面合作机制，为国际产能和装备制造合作提供全方位支持和综合保障。

（二十六）改革对外合作管理体制。进一步加大简政放权力度，深化境外投资管理制度改革，取消境外投资审批，除敏感类投资外，境外投资项目和设立企业全部实行告知性备案，做好事中事后监管工作。完善对中央和地方国有企业的境外投资管理方式，从注重事前管理向加强事中事后监管转变。完善对外承包工程管理，为企业开展对外合作创造便利条件。

（二十七）做好外交服务工作。外交部门和驻外使领馆要进一步做好驻在国政府和社会各界的工作，加强对我企业的指导、协调和服务，及时提供国别情况、有关国家合作意向和合作项目等有效信息，做好风险防范和领事保护工作。

（二十八）建立综合信息服务平台。完善信息共享制度，指导相关机构建立公共信息平台，全面整合政府、商协会、企业、金融机构、中介服务机构等信息资源，及时发布国家"走出去"有关政策，以及全面准确的国外投资环境、产业发展和政策、市场需求、项目合作等信息，为企业"走出去"提供全方位的综合信息支持和服务。

（二十九）积极发挥地方政府作用。地方政府要结合本地区产业发展、结构调整和产能情况，制定有针对性的工作方案，指导和鼓励本地区有条件的企业积极有序推进国际产能和装备制造合作。

六、加大政策支持力度

（三十）完善财税支持政策。加快与有关国家商签避免双重征税协定，实现重点国家全覆盖。

（三十一）发挥优惠贷款作用。根据国际产能和装备制造合作需要，支持企业参与大型成套设备出口、工程承包和大型投资项目。

（三十二）加大金融支持力度。发挥政策性银行和开发性金融机构的积极作用，通过银团贷款、出口信贷、项目融资等多种方式，加大对国际产能和装备制造合作的融资支持力度。鼓励商业性金融机构按照商业可持续和风险可控原则，为国际产能和装备制造合作项目提供融资支持，创新金融产品，完善金融服务。鼓励金融机构开展PPP项目贷款业务，提升我国高铁、核电等重大装备和产能"走出去"的综合竞争力。鼓励国内金融机构提高对境外资产或权益的处置能力，支持"走出去"企业以境外资产和股权、矿权等权益为抵押获得贷款，提高企业融资能力。加强与相关国家的监管协调，降低和消除准入壁垒，支持中资金融机构加快境外分支机构和服务网点布局，提高融资服务能力。加强与国际金融机构的对接与协调，共同开展境外重大项目合作。

（三十三）发挥人民币国际化积极作用。支持国家开发银行、中国进出口银行和境内商业银行在境外发行人民币债券并在境外使用，取消在境外发行人民币债券的地域限制。加快建设人民币跨境支付系统，完善人民币全球清算服务体系，便利企业使用人民币进行跨境合作和投资。鼓励在境外投资、对外承包工程、大型成套设备出口、大宗商品贸易及境外经贸合作区等使用人民币计价结算，降低"走出去"的货币错配风险。推动人民币在"一带一路"建设中的使用，有序拓宽人民币回流渠道。

（三十四）扩大融资资金来源。支持符合条件的企业和金融机构通过发行股票、债券、资产证券化产品在境内外市场募集资金，用于"走出去"项目。实行境外发债备案制，募集低成本外汇资金，更好地支持企业"走出去"资金需求。

（三十五）增加股权投资来源。发挥中国投资有限责任公司作用，设立业务覆盖全球的股权投资公司（即中投海外直接投资公司）。充分发挥丝路基金、中非基金、东盟基金、中投海外直接投资公司等作用，以股权投资、债务融资等方式，积极支持国际产能和装备制造合作项目。鼓励境内私募股权基金管理机构"走出去"，充分发挥其支持企业"走出去"开展绿地投资、并购投资等的作用。

（三十六）加强和完善出口信用保险。建立出口信用保险支持大型成套设备的长期制度性安排，对风险可控的项目实现应保尽保。发挥好中长期出口信用保险的风险保障作用，扩大保险覆盖面，以有效支持大型成套设备出口，带动优势产能"走出去"。

七、强化服务保障和风险防控

（三十七）加快中国标准国际化推广。提高中国标准国际化水平，加快认证认可国际互认进程。积极参与国际标准和区域标准制定，推动与主要贸易国之间的标准互认。尽早完成高铁、电力、工程机械、化工、有色、建材等行业技术标准外文版翻译，加大中国标准国际化推广力度，推动相关产品认证认可结果互认和采信。

（三十八）强化行业协会和中介机构作用。鼓励行业协会、商会、中介机构发挥积极作用，为企业"走出去"提供市场化、社会化、国际化的法律、会计、税务、投资、咨询、知识产权、风险评估和认证等服务。建立行业自律与政府监管相结合的管理体系，完善中介服务执业规则与管理制度，提高中介机构服务质量，强化中介服务机构的责任。

（三十九）加快人才队伍建设。加大跨国经营管理人才培训力度，坚持企业自我培养与政府扶持相结合，培养一批复合型跨国经营管理人才。以培养创新型科技人才为先导，加快重点行业专业技术人才队伍建设。加大海外高层次人才引进力度，建立人才国际化交流平台，为国际产能和装备制造合作提供人才支撑。

（四十）做好政策阐释工作。积极发挥国内传统媒体和互联网新媒体作用，及时准确通报信息。加强与国际主流媒体交流合作，做好与所在国当地媒体、智库、非政府组织的沟通工作，阐释平等合作、互利共赢、共同发展的合作理念，积极推介我国装备产品、技术、标准和优势产业。

（四十一）加强风险防范和安全保障。建立健全支持"走出去"的风险评估和防控机制，定期发布重大国别风险评估报告，及时警示和通报有关国家政治、经济和社会重大风险，提出应对预案和防范措施，妥善应对国际产能和装备制造合作重大风险。综合运用外交、经济、法律等手段，切实维护我国企业境外合法权益。充分发挥境外中国公民和机构安全保护工作部际联席会议制度的作用，完善境外安全风险预警机制和突发安全事件应急处理机制，及时妥善解决和处置各类安全问题，切实保障公民和企业的境外安全。

国务院

2015年5月13日

（本文有删减 个别表述有调整）

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