China's Five-Year Planning System: Implications for the Reform Agenda

Testimony for the U.S.-China Economic and Security Review Commission¹

April 22, 2015

Oliver Melton²

The Chinese leadership is confronting flagging growth and intensifying public concern over key quality of life issues, including alarming environment conditions, rampant product safety problems, and a general sense of economic and social inequality. As a result, Beijing has embarked on an extremely ambitious strategy to revitalize the economy and dramatically increase the quality of governance throughout the country. It aims to transform the role of government, by reducing state intervention in markets, improving the effectiveness of key regulatory bodies, and increasing the quality and equity of social services.

The complexity and scope of this agenda will strain every aspect of China's Communist Party (CCP) and state policymaking institutions. The Five Year Plan is Beijing's core mechanism for coordinating and implementing policy across national ministries and local governments, and will play a central role in the reform program. By looking closely at how the plan works in practice, this report identifies the strengths and weaknesses of the planning system, and highlights implications for the CCP's agenda.

- Section I outlines the mechanics of the planning system and its evolution from a tool of socialist economic planning to a dynamic political and policy institution.
- Section II reviews the 12th Five Year Plan (2011-2015) and highlights the conditions under which the planning process is effective and when it falls short.
- Section III offers a preliminary assessment of the role the 13th Five Year Plan will play within a market-oriented reform program.

Section I: The Modern Planning System

¹ This testimony borrows heavily from Heilmann, Sebastian & Melton, Oliver (2013). "The Reinvention of Development Planning in China, 1993–2012." *Modern China*, 39(6), 580-628, as well as Melton, Oliver (2010), "Understanding China's Five Year Plan: Planned Economy or Coordinated Chaos?" *China Insight* (GaveKalDragonomics), 9 November 2010, 1-19. The author gratefully acknowledges the contributions of his editors and his coauthor, Sebastian Heilmann, to this paper.

² The views expressed in this testimony are the author's alone, and in no way represent or reflect those of the U.S. Department of State or any other government agency.

In the spring of 2016, China's National People's Congress will approve the 16th Five Year Plan Outline, which will guide economic and social policy through 2020. The roughly 100-page document will set policy goals for almost every aspect of China's state bureaucracy, and will contain dozens of quantitative targets for things as diverse as GDP growth, urbanization quotas, CO₂ emissions, and health care coverage rates. The language and ceremony surrounding the document will be reminiscent of the socialist planning system, and will, by design, present an image of a powerful central government firmly in control of the nation's future. Perhaps as a result, some observers will see it as an anachronism, divorced from the reality of an increasingly freewheeling economy and local governments whose behavior on the ground often veers far from the ideals mandated in the capital.

Despite superficial similarities—in particular the precise targets and terse edicts for policy outcomes—the Five Year Plan has fundamentally transformed since the early 1990s, and has long abandoned its role dictating economic and social behavior. Though once wedded to socialist economic planning, and therefore inherently a tool of the command economy, the modern planning system is now highly flexible, and is used to support increasingly diverse initiatives. The 11th and 12th Five Year Plans solidified the shift toward new policy priorities, such as environmental protection and social welfare programs, and recast economic objectives in terms of the health of the economy, rather than the quantity of output.

China's Five Year Plan (FYP) is not actually a single, coherent plan, nor is it even fully contained within a discrete five-year period. Rather than a static policy blueprint, the Five Year Plan is better thought of as an evolutionary planning and policymaking process. It is a dynamic institution for systematically bringing information up from the grassroots to the central government, processing and analyzing that information to support policy decisions, delegating and coordinating the implementation process across the bureaucracy, and then monitoring the effectiveness of those policies—a and the officials who implement them.

It is also a political tool that strengthens the hand of central leaders, who use the planning system to shape the priorities and incentives of diverse ministries and local governments. Yet the Five Year Plan is actually designed to preserve the high degree of institutional leeway and local autonomy that typifies China's highly decentralized government. Arguably, central planning reinforces the system of tiered control and central oversight that ensures Beijing has ultimate control over key policy parameters, but without over centralizing decision-making power or micromanaging local officials.

The Cascade of Plans

The first official document in the FYP cycle is the Communist Party's brief, fairly general "Guidelines" approved at a plenary session of the Central Committee in the fall before the first year of the plan. This document solidifies the strategic consensus of the CCP just after the midpoint of the party's five-year political cycle, which means the plan is offset from the leadership transition and therefore ensures a degree of continuity across administrations. The State Council then drafts the "Outline," which is approved by the National People's Congress the following spring. This document—commonly cited as

China's Five Year Plan—clarifies objectives and points to individual policy strategies, but remains fairly vague. A parallel process of Guidelines and Outlines ensues among local governments over the same time period.

Later in the first and second year of the plan cycle, the individual paragraphs or targets in the national and local plan Outlines are then used as the basis for the real core of the FYP system: hundreds of sub-plans that contain the first level of practical detail on how the main objectives of the new five-year plan outline are to be realized. These plans provide individualized regional targets tailored to local conditions and resources, define the general parameters of policy strategies, and set initial guidance for how progress will be measured and evaluated—sometimes a contentious process arbitrated by the State Council and CCP bodies. Finally, government departments at all levels must still develop a series of "work programs" and "implementation programs" that contain the level of specificity needed to allocate resources and adjust procedures and regulations. It is only at this point, after thousands of provinces, cities, and counties have produced supporting initiatives, that individual policy programs are mature enough to implement nationally.

This creates a nested web of plans, found in almost every single policy domain in China and across the three core levels of the state: the center, provincial-level governments, and counties and county-level cities—which, not coincidentally, correspond with CCP supervision and authority structures. This system of sub-plans has become increasingly institutionalized since the 11th FYP, and central ministries are reducing their direct role in managing projects, except in cases where there is a clear reason for an active central program, such as cross-regional issues or national defense. Instead, national plans set general strategies and outline the content of a policy plan, but leave many details and management functions to local governments. These local departments are the locus of most policy implementation and have substantial leeway over issues not specified in the national plans—and very often reinterpret or reprioritize the content of their instructions. Importantly, many of the key policy documents that translate Five Year Plan strategies into practice are not explicitly identified as subcomponents of the plans that mandated their creation, which helps obscure the sustained coordination process in the planning system.

In general, the large, national thematic sub-plans are released in the first year of the plan, and the follow-on implementation documents following the second and third year. Fiscal support measures and evaluation procedures often lag even further, meaning that the full web of national and local policies is generally only complete in the latter half of the plan period. This delay is particularly acute for programs that require new regulatory, institutional, or fiscal support structures, such as social welfare programs or environmental monitoring. One feature of this lagged process is that local governments and ministries are forced to improvise while the details are being finalized. This can produce a degree of chaos, fueling the impression that Beijing is out of touch with reality on the ground, particularly for difficult or underfunded priorities that local officials might hope to shirk. But it also creates space for China's distinctive method of policy experimentation and pilot projects, which often precede national plans and are used to inform subsequent implementation details.

Just as these policies are coming into effect, a mid-term review process begins at all levels of government and for most thematic plans as specified early in the planning process. There has been a trend—or at least an aspiration—to involve independent third-party

evaluators since the 11th Plan, which has had varying degrees of success. The results of the review process are released in the third and fourth years of the plan, including a formal presentation to the National People's Congress and local equivalents, and are meant to provide feedback to calibrate initiatives as they mature, spreading successful models and correcting unsuccessful ones. By the time this review process has concluded, the party and state bodies charged with drafting the strategic guidelines of the next Five Year Plan are starting their preparatory work. The assessment of outstanding problems thereby feeds back to the center as the process begins anew.

The Planning System's Role in Party Governance

Though the Five Year Planning system is primarily a mechanism for the state to coordinate and implement policy across central and local bureaucracies, it derives its influence from its role within the Communist Party's power structures. The modern CCP exerts its control over the political system largely through the management of cadres—the nomenklatura system—which institutionalizes its control over personnel within a tiered central and local hierarchy of party secretaries. The center appoints and monitors all officials at and above the vice-minister and vice-provincial rank, and delegates similar powers to the party secretaries at the provincial level, who in turn make appointments and oversee leading cadre in the counties and county-level cities in their jurisdiction, and so on.

This structure creates a concentration of power within the party apparatus at each successive level of government, where party secretaries enjoy immense authority over their subordinates in all state institutions, with few effective checks other than the party institutions above them. This gives them wide latitude to use legal and extra-legal powers as they see fit, and leads to a widely discussed tension between vertical and horizontal authority relationships. On paper, central ministries have policy authority over the corresponding departments in local governments, but the local ministers are also subordinate to their respective party secretaries, who are far more important to their career prospects and budgets than Beijing. In all but a few special cases, namely the military and central bank, the result is that the priorities of the local party leadership trump tenuous vertical institutional linkages.

The importance of the cadre management system has withstood the sweeping economic reforms of the past 35 years, even as the party has withdrawn from direct administration of economic activity and professionalized the bureaucracy, which have greatly reduced the scope of its appointment powers. It has adapted by retaining control over key choke points in the economy, namely state-owned enterprises and financial institutions, whose leaders are still appointed by the party. Despite a long-standing trend of decentralizing budgetary and policy authority, the CCP has also retained control over local governments' policy strategies and objectives through increasingly institutionalized oversight and evaluation systems. (There are actually three overlapping evaluation systems, not further addressed here.)

The cadre management system is opaque and gives wide latitude to party secretaries to appoint and promote whomever they want, often leading to corruption, patronage

networks, and abuses of power. Yet the system on the whole has been effective at shaping priorities and allowing the center to retain broad influence over policy decisions. This is the core of China's unique—and deliberate—balance of centralized political control and the substantial devolution of policymaking authority. When the Central Committee meets ahead of the Five Year Plan period, it is not just providing instructions to the State Council and central bureaucracy. It is codifying the strategic priorities of subordinate party bodies and endowing the FYP Outline with political significance.

The relationship between the plan and the party's political control mechanism was formalized within the plan's target system in the 11th Five Year Plan. Quantitative targets were divided into new categories, "binding" and "predictive." The party's evaluation criteria were then updated to include these targets, wedding the plan's core priorities to the party's primary political enforcement mechanisms. The binding targets were subsequently allocated to provincial-level governments and were in turn allocated to county and country-level cities, ensuring that each level of party leadership had a direct interest in its subordinates meeting their quotas. By contrast, "predictive" targets were not given the same weight and were not introduced to the cadre evaluation criteria (though GDP growth, a predictive target, retained a place in the criteria with a lower weighting).

The purpose of the binding targets is to create a sort of veto over career advancement for leading cadres who do not meet key goals, and the plan's mid-term and final review processes are therefore imbued with substantial political importance. The agencies responsible for the evaluations—often the National Development and Reform Commission and its local counterparts, or the lead ministries in thematic plans—gain a degree of political power within the vertical and horizontal power structures, because their assessments affect the careers of local leaders.

The Planning System in Operation

China's government is highly decentralized relative to most countries, but its authority relationships are dynamic. The levels of independence enjoyed by lower-level policymakers vary over time and the roles of party and state bodies shift at key junctures of the planning cycle. At the start of the process, central party leaders define strategic priorities and articulate the substance and distribution of key targets. High-level party deliberations are opaque, but in the past a Politburo Standing Committee member has overseen the process, with drafting and coordination work handled by ad hoc and standing leading small groups, composed of high-ranking party officials and relevant ministers. Day-to-day work is handled by the leading groups' "offices," which are housed in key ministries or other party bodies. The break between party and state responsibilities is not precise—not least because the Premier and Vice Premiers of the State Council are on the same party leading groups, as are the local governors and vice governors, mayors and vice mayors, and so on.

In the first and second year of the plan, as the cycle moves to the national FYP Outline and the subsequent cascade of national-level policy documents, control of the process shifts from purely party bodies to the State Council and its staff. They take the lead coordinating individual plans and then delegating further work to individual ministries and

their local counterparts, who are ultimately responsible for implementing the programs. Thus as the planning cycle progresses, the locus of decision-making shifts from party leaders to state entities, and from the center to local governments.

In practice, the party leadership can reassert its influence at any point to adjust or renegotiate its mandates. However, given the limited capacity for—and desire to avoid—micromanaging lower levels of government, the general trend is to allow local governments and ministries wide latitude to implement policy once the party has set the parameters. Thus for the majority of the time and the majority of issues, China remains a highly decentralized government with a high degree of local autonomy. The precise balance of power between the apex of party power and low-level policymakers is a function of both the issue and the policy cycle.

The planning system is meant to help mitigate the problem of limited high-level bandwidth by institutionalizing a regular, comprehensive coordination process. But interagency disputes and low priority issues can still fester for long periods of time without resolution, in part due to Chinese policymakers' reliance on delegating responsibilities. The leading small groups are meant to help resolve such problems on an ongoing basis, but cannot overcome the fundamental capacity constraints Beijing faces managing an enormous country and a large number of extremely complex problems.

Pathologies of the Target System

The target system can be effective at setting red lines for minimum performance or incentivizing a small number of discrete priorities. But it is ill suited for balancing contradictory objectives, alleviating resource and capacity constraints, or altering external incentives. The reliance on this system produces several categories of common problems, which are reflected in the Five Year Planning system.

Lack of Objective Data

The target system depends heavily on objective measurements of quantifiable policy goals. Local governments and ministries are almost always responsible for collecting the data used to evaluate their own performance, which leads to misrepresentation and obfuscation. But even without the problem of bias, China's statistical system has severe institutional limits, meaning that policymakers at all levels frequently lack reliable data simply because it is not being collected properly. Finally, this problem is compounded because Beijing is shifting its focus from easily quantifiable economic goals to more subjective priorities that do not lend themselves to quantification, making it difficult to apply rigid target-based quotas.

Abuses of Power

The party's target-based management system functions because local party secretaries have wide latitude to deploy packages of policies to meet the objectives assigned to them. However, this same autonomy and influence often leads to corruption, which can also play a role behind the scenes in cadre evaluations and appointments. Favored candidates can also receive plum assignments where targets are easier to meet, or they can negotiate

friendlier evaluation criteria at the outset. These flaws can undermine the effectiveness of the system by altering the

Superficial Implementation

The high-pressure target system creates incentives to produce measurable evidence of policy results under tight deadlines, which produces a huge range of undesirable outcomes. Even when officials would prefer to do otherwise, they are pushed to pursue strategies that do not effectively address underlying problems, because it rewards superficial or pro forma policies. Additionally, costs or unintended consequences that are not measured by the party can be safely ignored by local leaders, which means the problems reflected in the targets are often exacerbated or replaced by new ones.

Prerequisites of Effective Policy

The Chinese policymaking system works best when the leadership crafts policies with its deficiencies in mind, properly allocating resources or compensating for—or at least anticipating—the countervailing pressures.

- Capacity: Officials have appropriate resources and policy tools to address problems.
- Incentives: There are not countervailing priorities and costs are small or offset.
- Measurable: Tasks can be evaluated objectively and quantitatively.
- Transparency: There is reliable, objective data about policy outcomes.
- Focus: There is a narrow set of clear targets and discrete objectives.

Focus on GDP

In many ways, the proliferation of binding targets can be seen as an effort to limit the negative spillover of the overemphasis on GDP growth in formal evaluation criteria. However, there are structural incentives that ensure that GDP will remain a major priority for all local officials, which can be balanced but not eliminated by other political incentives. In particular, growth is essential for other party objectives, such as employment and household consumption. And a strong economy provides revenue, which is necessary to fund other priorities, such as social welfare spending.

Capacity Constraints

Local governments and ministries face significant capacity constraints, and are often unable to achieve goals set for them—or must do so at the expense of other priorities or in ways that produce undesirable outcomes. Local government fiscal resources are closely linked to the size of the local economy, which makes it very difficult for poor regions to expand social services or invest in new programs. Additionally, ministries that lack appropriate resources often resort to using whatever powers they have to accomplish their mission, even when those tools produce unwanted outcomes. As in any other country, Chinese policy plans are only effective when they ensure that implementing agencies have the capacity to deliver appropriate policies.

Limited Scope

Finally, the system has been effective at focusing attention on a small number of very high priority goals, such as economic growth and population control. But it can break down when local leaders are given a large number of diverse targets. Priorities are diluted and

cadre devise strategies to maximize their performance rating as they make trade-offs with finite resources and contradictory objectives. The party's personnel management system has tried to address this scientifically, with a growing list of carefully weighted targets. But it is unlikely that the party can solve the problem by adding more layers of nuance to the targets.

Section II: The 12th Five Year Plan

The 11th and 12th Five Year Plans solidified many new institutional features of the planning process and fundamentally shifted the plan's priorities in ways that will almost certainly persist in the 13th Plan. The system is maturing, and its ability to address new challenges is increasing, albeit unevenly and with significant limitations. The recent experience of the 12th FYP is therefore instructive, and helps identify what Beijing will need to do to make the 13th Plan successful.

The use of binding, party-backed targets to enforce key redlines has become more institutionalized. The 11th five-year plan contained 22 primary targets, of which eight were binding. The 12th five-year plan contained 23 targets, of which 13 were binding. These targets were disseminated to provincial-level governments and then to cities and counties, and were a key focus of the review process.

Targets of the 12th Plan

Economic Growth

GDP	7% Annual Growth	Predictive
Per Capital GDP	Eliminated	

Economic Structure:

Service Industry / GDP	4ppt Cumulative Growth	Predictive
Employment in Service Industry / Total Employment	Eliminated	
Total Employment		
R&D Spending / GDP	0.4ppt Cumulative Growth	Predictive
Patents / 10,000 People	1.6 Cumulative Growth	Predictive
Urbanization Rate	4ppt Cumulative Growth	Predictive

New

Population, Resources, and the Environment

Population	< 7.2% Cumulative Growth	Restrictive
Energy Consumption Per Unit of GDP	16pp Cumulative Reduction	Restrictive

			•
New	CO2 Emissions Per Unit of GDP	17% Cumulative Reduction	Restrictive
New	Non-Petro Chemical Energy / Non-Renewable Energy	3.1pp Cumulative Increase	Restrictive
	Water Consumption Per Unit of Industrial Value Added	30pp Cumulative Reduction	Restrictive
	Effective Use of Irrigation Water (Utilization Coefficient)	0.03ppt Cumulative Increase	Predictive
	Rate of Comprehensive Use of Solid Industrial Waste	Eliminated	
	Total Acreage of Cultivated Land	No Cumulative Change	Restrictive
	Total Discharge of Major Pollutants		
	Sulfur Dioxide	8pp Cumulative Reduction	Restrictive
	Chemical Oxygen Demand	8pp Cumulative Reduction	Restrictive
New	Ammonium nitrate	10pp Cumulative Reduction	Restrictive
New	Nitrogen Oxide	10pp Cumulative Reduction	Restrictive
	Forest Coverage	1.3ppt Cumulative Increase	Restrictive
New	Total Stock of Forest	600 Billion sqm Increase	Restrictive

Public Services, People's Livelihoods

	Enrollment in Higher Education	4.5ppts (to 87%)	Predictive
New	Completion Rate of Compulsory Education (9 years)	3.3 ppts (to 93%)	Restrictive
	Coverage of Urban Basic Old-Age Pension	100mn Cumulative Increase in People Covered	Restrictive
	Coverage of the Three-Point Rural Medical Care System	3% Cumulative Growth in the Population	Restrictive
New	New Social Housing	36 Million Units in Five Years	Restrictive

New Jobs Created for Urban Residents	45mn Cumulative Jobs Created	Predictive
Rural Laborers Transferred to Non-Agriculture Sectors	Eliminated	
Urban Registered Unemployment Rate	Fewer than 5% Throughout FYP	Predictive
Per Capita Disposable Income of Urban Residents	> 7% Annual Growth	Predictive
Per capita net income of rural residents	> 7% Annual Growth	Predictive

During the 12th FYP, the division of responsibilities between central and local plans has become clearer and more systematic, as envisioned during the lead up to the 11th FYP. At the regional level, the State Council and NDRC have approved hundreds of city-level development plans, and, in a process originally outlined in the 11th Plan, have very slowly divided all county-level units into four categories of "functional regions." These centrally approved regional plans are meant to establish major objectives and development parameters for localities, while the functional zones are used to craft tailored incentive structures based on districts' assigned development priorities (e.g. agriculture v. industrialization). Beijing is trying to influence the overall distribution of regional and urban development without micromanaging individual investment and economic policy decisions. Nonetheless, the stringency and specificity of central policy parameters vary widely. In some areas, such as environmental policy, the national plans and central ministries have obtained significantly more authority. Yet in others, national plans are rough road maps and lists of objectives with little direct oversight.

There is also a continued trend toward institutionalizing grater non-governmental participation. Experts committees have been formed at central and local levels to help review and analyze overarching economic and social conditions, as well as the effectiveness of recent policies. This work is fed directly to the party bodies that will establish strategic guidelines in the summer and fall of 2015. The process is replicated within specific issue areas, such as environmental protection and technology programs. Likewise, the 11th and 12th Plans both attempted to expand the use of third-party evaluation teams in the mid-term and end-of-plan review process. The influence of these outside groups is difficult to assess and appears to vary considerably by issue and locality.

Finally, one of the most important trends in the 11th and 12th Five Year Plans has been a robust effort to improve the quality and reliability of data. Particularly as policy priorities shift to areas like environmental protection and energy efficiency, Beijing has had to create new and more objective systems to evaluate the effectiveness of policy and, crucially, the performance of local officials. Given the long lag times of designing and implementing these systems—and the importance of establishing baselines and appropriate targets—this has been an iterative process that extends beyond a single plan period.

The Effectiveness of the 12th Five Year Plan

When it was released, the 12th Five Year Plan was heralded as a potential breaking point, reflecting Beijing's desire to transform China's growth model and address striking social and environmental problems. It called for a fundamental turn away from China's unsustainable reliance on investment and exports to an economy driven by domestic demand and innovation. It enshrined stringent environmental and energy efficiency goals, and called for substantial improvements in the equity and quality of social services. The results were uneven, and while there were some successes that will be extended in the 13th Plan, it fell short in many ways.

Given the massive scope of the associated policy initiatives, it is difficult to provide a full assessment of the 12th plan's effectiveness. However at a very broad level, it is possible to conclude that it was least effective at reorienting the development model by increasing the share of consumption in the economy and reducing China's reliance on unsustainable sources of growth. It was most successful at reducing emissions of specific pollutants, improving energy efficiency, and other concrete, measurable objectives that were enshrined in a small number of binding targets. The results were mixed with respect to innovation, as policies were fairly effective at achieving the goals they set for themselves, but the broader utility of some of these goals is questionable and possibly even counterproductive.

The Growth Model

Though domestic consumption and household incomes grew rapidly in absolute terms, their share in GDP increased only modestly over the plan period, such that China made minimal progress toward rebalancing its economy. Debt-fueled investment in industry, real estate, and infrastructure remained major source of growth, and has started to slow only in the face of substantial excess capacity and a mounting debt repayment burden for firms and local governments. The Five Year Plan seems to have had no ability to curtail such trends, and to the extent that there is a correction, it will be because there is finally no other choice.

However, the key macroeconomic policies that fuel China's domestic economic distortions were not directly addressed through the five year planning process. Instead, major issues like as financial sector reform and the redistribution of resources in the fiscal system have been handled on an ad hoc basis by the senior leadership. Additionally, it is important to distinguish between the broad ambitions enshrined in the plan and the preferences revealed by policymakers when forced to make trade-offs.

The Hu-Wen administration repeatedly chose to preserve rapid growth in ways that exacerbated long-term structural problems. For example, laudable macroeconomic plans were included in the plan—such as interest rate liberalization—but Beijing preferred to pursue incremental reform of the financial system, rather than overhauling everything at once. By limiting the role of market forces—such as bankruptcies—and failing to curtail local governments' influence in markets, this gradualist strategy helped fuel the explosion of state-backed investment and debt that is now a major vulnerability for the economy.

Finally, the plan was not a total failure in its attempt to reorient the growth model. The policies identified to support higher consumption in the 12th Plan were focused on better

social service provision and a greater role for the service sector. Both are necessary to boost household income as a share of GDP, because services pay more in wages relative to output and social services reduce precautionary savings within households. Some policies in the 12th Plan, such as expanding value-added tax reform and pension coverage, will promote incremental progress.

Innovation

The 12th FYP's efforts to increase the role of innovation in the economy have had mixed results. Policymakers at the national and local level seem almost exclusively focused on improving China's ability to develop advanced technologies and capture larger and more sophisticated segments of global manufacturing networks. Over time this would be an important source of growth, but, given China's level of development, the economy might benefit more from less glamorous policy initiatives that increase efficiency or the adoption of productivity enhancing technologies. Moreover, the specific shortcomings Chinese policymakers have identified—low R&D expenditure by firms, lack of marketable technologies from research institutes, insufficient financial resources for small technology firms, and the uneven performance of Chinese firms abroad—are reflections of broader failures of China's legal and institutional environment, which would be better addressed at their source. Finally, there is questionable economic benefit to investing huge amounts of money to produce domestic variants of technologies that other countries already offer. Less nationalistic innovation policies would have the same—or greater—economic value at a much lower cost and fewer distortions in the economy.

China's innovation strategy hasn't missed this entirely, and the 12th Five Year Plan and its associated policies have focused on supporting institutions, like intellectual property rights, changes to tax policy, and reforms to science and technology programs to improve incentives to invest in marketable technologies. Nonetheless, Premier Wen revitalized the large industrial programs that his predecessor, Premier Zhu Rongji, had tried to curtail. Beijing sought to boost "indigenous innovation" under the 11th Plan, including the contentious 2006 Medium- and Long-Term Science and Technology Development Plan, and redoubled support for a range of advanced manufacturing sectors, especially in the wake of the global financial crisis. The 12th Five Year Plans revitalized state support for strategic industries and technology programs in the form of the Strategic Emerging Industries.

More recent iterations of industrial and innovation policy in the 12th Five Year Plan have attempted to be more responsive to market forces by tweaking funding and program management mechanisms. But fundamentally, these programs still lead to significant state involvement in the economy, which exacerbates corruption, misallocates resources, and distorts the market in harmful ways—even when it produces successful Chinese companies or new technologies. The 11th and 12th FYPs channeled immense resources into new industries, such as solar and wind power, which massively expanded China's global market share in these sectors. However, the exact same policies then fueled a boom-bust cycle that has had global ramifications during the 12th Plan period. One of the chief problems is that local governments, by design, use their control over key resources to supercharge the growth of priority sectors. Yet officials respond to political incentives rather than market signals, and may even expand their support for local firms when they run into trouble. This fundamentally upends normal market forces, and easily leads to overcapacity and excessive investment.

When plans incentivize policymakers to meet specific industrial or innovation targets, it is not surprising that they respond by producing superficial results, such as meaningless patents, ignore unwanted side effects, like excess capacity, or adopt aggressive protectionist policies, such as procurement regulations that exclude foreign firms from certain markets. These problems are, in part, an inherent outgrowth the planning system's pathologies described above. But it is also just bad policy, and individual leaders bear responsibility for incentivizing the wrong kinds of government behavior.

Environmental Protection

Environmental degradation in China is extremely severe, and continues to deteriorate in many important respects. However, the 11th and 12th Five Year Plans made preliminary progress limiting certain types of pollution and improving energy efficiency, which is a closely related issue given the importance of coal power in China. The 11th Plan introduced sulfur dioxide and chemical oxygen demand as restrictive targets integrated into party evaluations, and the 12th Plan added ammonium nitrate, nitrogen oxide, and CO₂ emissions. Both plans included energy intensity targets. The official mid-plan review concluded that China met or came close to its environmental targets in the 11th Plan and was on track to meet them again in the 12th Plan, with the exception of ammonium nitrate. Even more importantly, however, many localities failed to meet their individualized targets. The system is being used to apply pressure to local governments, which seems to be working.

From the start of the 11th and 12th Plan period, central and local government agencies initiated the planning and policymaking cycle described above, producing a range of diverse policies designed to improve efficiency, reduce emissions, and close outdated factories and power plants. However, because pollution and energy intensity targets were new and lacked supporting institutions, it took almost a decade for the party's high-powered incentive structures to come into full force. Basic monitoring equipment and measurement criteria took years to deploy during the 11th plan period, and are still incomplete today. It was only well into the 12th Plan that policymakers had a thorough understanding of China's baseline pollution conditions, a sufficient network of monitoring technologies installed in key regions, and specific criteria and procedures to evaluate the effectiveness of policy programs.

As new pollutants are added to the list of binding targets, there will be similar delays as the institutions and incentives catch up to the problem. This creates a long lag between initial policy programs—such as the air pollution action plan released halfway through the 12th Plan, which included PM 2.5 in its targets—and the mechanisms necessary to ensure their success. This leads to an initial period of weak or poorly coordinated enforcement, even for programs that are ultimately effective.

One interesting feature of the 11th and 12th Plans' environmental initiatives is that center-local bureaucratic authority relationships were essentially unchanged. Central-level policies were generally limited to providing technical guidance and funding, while local officials continued to manage their own programs, including the monitoring stations and pollution data that national officials rely upon. The main difference was that national-level policies were extremely specific about which monitoring technologies could be used, where they could be installed, and how the data would be transmitted to central officials.

Additionally, the central government provided significant transfer payments to help offset associated costs for industry and local bureaucracies.

On the whole, the system seems to have worked, in part because Beijing relied on the strengths of the target system—setting small number of clear, measurable targets—and helped offset the costs of compliance. In other cases, such as early efforts to control energy efficiency in the 11th Plan, Beijing was less successful because it failed to provide appropriate policy tools and resources, and local officials could manipulate the statistics used to evaluate their progress. China is evidently becoming more skilled at enforcing environmental policy, but faces challenges in the future if, for example, the number of targets proliferates, making it hard for policymakers to focus their efforts, or if the source of emissions and pollution is outside of their jurisdictions.

Section III: The 13th Five Year Plan and the Reform Program

In November 2013, roughly halfway through the 12th Plan period, the new Central Committee of the Communist Party met to forge a consensus economic reform strategy. The resulting plenum "Decision" outlined an extremely ambitious agenda, which would transform the role of government in China's economy and society. If executed, it will mark a new era in China's reform period, contributing to a more sustainable and equitable growth trajectory.

Yet the plenum's core objectives are very similar to the party Guidelines issued ahead of the 12th Plan, almost exactly three years earlier. Beijing's strategic orientation—and even many of its core policy plans—did not change sharply with the Decision. (This is not surprising since it is a consensus party strategy, and all of the new national leaders, including President Xi and Premier Li, held prominent positions in the previous administration.) Instead, the reason the Third Plenum Decision was such a powerful signal is that it offered a credible strategy to address underlying structural problems that frustrated previous reform efforts. Indeed, its prescriptions reflect a clear assessment of the 12th Five Year Plan's strengths and weaknesses. 13th Plan will expand initiatives that have been successful, and attempt to correct efforts that failed.

The Third Plenum: Assessing the Structural Challenges to Reform

- Macroeconomic imbalances and China's unsustainable growth model stem from distorted factor markets—namely land, energy, natural resources, and labor—that artificially depress the price of resources.
- Overcapacity in industry and the weakness of small, innovative firms stem from excessive government involvement in the economy.
- Poor and enforcement of laws and regulations, unchecked government powers, and powerful state firms lead to corruption, unfair competition, a stunted service sector, and economy-wide inefficiencies.
- The distorted fiscal system creates social and regional inequality, incentivizes excessive investment, and makes local government's dependent on land sales.

Addressing Structural Problems

The leadership has repeatedly described current challenge as requiring "top-level design" due to the fact that China has entered a "deep water zone." The long-standing practice of delegating incremental policy reform to local governments, embodied by the notion of "crossing a river by feeling the stones," has reached its limits in several key dimensions. As described above, China's unbalanced fiscal system, distorted factor markets, and excessive government powers have become obstacles to long-term reform goals and are sometimes themselves the core source of economic problems.

Beijing recognizes this, and has recently initiated a series of reforms to address the root problems. Given the importance of these policy issues and the far-reaching effects of interrelated reform plans, this process must be handled centrally, with careful coordination and preparatory work prior to and during implementation. As a result, Beijing cannot delegate core responsibilities to lower levels of government, nor can it rely on decentralized experimentation to incrementally identify workable policy solutions—at least not to the extent that it normally does. Accordingly, the Third Plenum Decision called for a large new leading small group to bolster central-level policy coordination and execution, given the fact that demands on the central policy-making systems will be much greater.

2012-2015 Structural Reform Initiatives

- Overhauling the fiscal system;
- Trimming and clarifying government powers;
- Relaxing controls over energy prices;
- Liberalizing the financial sector;
- Strengthening regulatory capacity;
- Reducing investment approvals;
- Improving equity of social services;
- Relaxing the hukou system;
- Preparing for incremental land reform; and
- Experimenting with SOE reform.

In this context, the Five Year Plan will not be the vehicle for many of the major structural reform initiatives in the current reform agenda—at least not initially. Instead, the Politburo Standing Committee and State Council will remain at the forefront, adjudicating a far greater number of individual policy decisions than they normally would.

However, the planning system will still play an important supporting role. The institutional demands of the

reform agenda are enormous, and the planning system will help coordinate resource allocation, the creation or expansion of regulatory bodies, the refinement of implementation plans once approved by Beijing, and, crucially, the assessment of policy effectiveness and the identification of new issues that need central attention.

Areas of Continuity

In areas where previous plans have been effective, the 13th Plan will continue to play a central role in enhancing and expanding existing policy initiatives. In particular, environmental protection policy will almost certainly build off the approaches used in the 11th and 12th Plan, expanding the scope of binding environmental targets to include new pollutants—most notably with PM 2.5, heavy metals, and soil and water pollution—and further enhancing the monitoring and evaluation systems needed to assess policy effectiveness and enforce political incentives. Other environmental infrastructure investment, such as waste treatment and water management, will also rely heavily on central and local plans, particularly in poorer regions that require central subsidies.

Targets for social service provision will also likely be included in the 13th Plan, which is closely related to ongoing hukou reform efforts and changes to the fiscal system, possibly including the pooling of various social welfare funds at a regional or even national level. Related sub-plans could help identify workable transition models as cities liberalize residency requirements. They could also help promote fiscal redistribution efforts, if, for example, they target provincial-level health insurance coverage rates according to certain standards of care.

Regional planning will also expand at a national and local level, with a focus on rebalancing the distribution of urban infrastructure investment, transportation networks, and resource- and pollution-intensive industries. Regional planning efforts will also be central for issues that span jurisdictions, like air and water pollution, where the causes and consequences of policy decisions are not contained within a single local government's borders. For example, the Beijing-Tianjin-Hebei air pollution initiative requires a coordinated supra-provincial approach that can implement policies at their source—e.g. Hebei—while measuring the effectiveness elsewhere—namely, Beijing. In particular, the planning system will be crucial for altering the associated political incentives—and compensating for the economic effects—of shuttering industrial firms in Hebei to improve the air in Beijing, which is one of the main functions of the planning system.

The planning system will also continue to play a major role in other major national-level initiatives, such as science and technology research programs, defense- and security-related industrial development, and international initiatives, like the 21st Century Maritime Silk Road and Silk Road Economic Belt—China's new regional economic and diplomatic outreach effort. In most of these areas, the structure and sequence of the plan cycle will likely remain unchanged, even if the content evolves in new directions.

Planning for Market-oriented Reform

One of the key questions for the 13th Plan is how it will use the decentralized planning system in policy areas where the objective is to reduce excessive government intervention. In particular, the sub-plans that deal with state-owned enterprises, regulatory reform, urbanization, improvements in the legal system, and industrial and innovation policy will have to walk a fine line to avoid endowing lower levels of government with new powers that could be counterproductive. This problem is particularly acute, because the delegation of implementation authority and program design would most naturally be given to the agencies whose powers Beijing wants to trim.

Central plans could, in theory, be used to define stringent parameters of appropriate market-friendly policy tools—such as the types of financial assistance available for technology programs, the metrics for state-owned enterprise reform, or performance criteria of regulators and judges—and then allow local agencies to manage plans and institutional reforms accordingly. Recent efforts under the current administration to improve tax policies and create market-oriented investment funds for strategic emerging industries, could be one early model. However, such programs are prone to abuse by local governments and economic ministries, who have a strong interest in retaining control over such initiatives—and funds. Additionally, when there are incentives to produce quick, measurable policy results, it is often more expeditious to intervene directly in the economy rather than fostering

a market environment that will more effectively achieve the same goals over a longer period of time. This leads to the question of how Beijing can use its planning and cadre management system to produce high-quality governance, rather than specific, measurable outcomes.

The Challenge of Using the Planning System for Good Governance

As Beijing pursues the regulatory, fiscal, and legal reforms outlined in the Third and Fourth Plenum Decisions—meant to formalize and constrain arbitrary local powers—it will necessarily alter the authority structures of local governments and central ministries. This will complicate China's long-standing approach to decentralized governance, which has relied on these same powers to implement party mandates—often with ad hoc, experimental approaches to new policies. If successful, officials will lose many of their powers to influence economic decisions in their districts and will be bound more closely to their formal authorities. The challenge for the reform program would be managing the sequence of change to ensure that new institutional and regulatory oversight of the economy mature as quickly as old powers are eliminated. However it is much easier to reduce controls than it is to build effective, unbiased regulatory institutions.

Moreover, it is not clear that the planning system will be effective at promoting higher-quality social services and regulation. The mobilization of resources and creation of new agencies or institutions—which are indeed important steps—are easy to measure and evaluate. But the planning system has little to no ability to monitor the quality of subsequent regulatory performance or services, which constrains the party's ability to incentivize good governance in a decentralized system. In some cases, such as healthcare, the crux of the problem is creating the right market incentives for hospitals and clinics to offer quality services, which can be managed through the iterative policy-making process of the planning system. In other cases, such as enforcement of the antimonopoly law or the protection of intellectual property rights, the problem is more complicated. Beijing must build and enhance relevant institutions, but then the challenge is inducing officials to provide efficient, unbiased enforcement of those regulations. Altering authority relationships can help—for example, by placing certain officials under higher-level party supervision, as with the central bank and military—but within limits.

Fundamentally, these dilemmas reflect questions about the CCP's method of governance. In the near-term, many of China's problems are so severe that the planning system can be effective by setting a general orientation, building necessary institutions, and making initial progress addressing the most pressing issues. However, in the longer-term, China must increasingly focus on improving the general quality of governance across a wide range of public services and regulatory functions. China's policymaking systems—including the Five Year Plan—are good at mobilizing resources to attack discrete problems. But they will struggle to substitute for a political system that is more responsive to grass roots, low-level demands.