Mature Market Economy—A Combination of Effective Government and Efficient Market

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Abstract

The relation between government and market is the Goldbach conjecture in economics. As this article indicates, Adam Smith’s third work attempted to expound national government behavior and proceeded to probe into the roles and functions government should play, and Keynes explained in his work why a series of measures were proposed to intervene in effective demand, rather than why national government could, in the capacity of a participant or one of the major entities, propel investment and infrastructure construction.

The article goes on to prove that studies in resource generation have remained a blank that awaits to be filled in the mainstream economic theorization of modern times, that government plays the role of a competitive entity in the area of generative resources, that government competition can be classified in the narrow and broad sense, that efficient market can be divided in three tiers, that effective government can be represented in terms of their performance, and that there are nine modes of combining effective government and efficient market.

This article breaks out of the limitations of the mainstream western economic system and the configuration of market theories. First, it proposes in market economic theorization that a mature economy is one integrating effective government and efficient market. It holds that many issues and practical problems in the economic development of the world are the indications of defects in traditional market theories the blanks of modern market theories, rather than problems with the market. Second, it proposes the conceptualization of “mezzoeconomics” in the economic theoretical system that plays an active and innovative role in economic growth, believing that the setup of the mezzoeconomic system, with regional or urban economy as its carrier and regional government as one of its entities of competition playing its competitive role in the allocation of newly generated resources, means remedying the defects in the orthodox economic system and filling the blank in the current economic system. Third, it puts forth theories of new economic engines for world economic growth and holds that government should try their best to build up new engines for investment, innovation and new governance, with focus on the development and construction of infrastructure.

This article aims to substantiate the government-market relation by basing its analysis on explorations in China’s reform and opening up, economic development and operative modes and making use of development experience and research findings in world economic practices. It defines three categories of resources and the attributes of resource allocation in different phases of development and reveals the duality of economic attributes of government and entities of market competition and the necessity of mature economy integrating effective government and efficient market. It emphasizes that government needs foresighted leading in order to succeed, needs competition in innovation and needs innovation in competition. China’s reform and opening up and innovative development furnish fertile soil for such economic generalization. Findings in this research will be incorporated into world economic theorization and will eventually serve world economic growth.

A new era of global economic development has dawned, ushering in a new realm for the formation and development of
market economic theories around the world. The foundation for keeping the world’s economics alive and vibrant with fresh perspectives is keeping abreast with the times and the development of the world and following closely and addressing crucial issues of the times, issues that have come up in practice. It is judgeable and verifiable from both theoretical and practical perspectives that a mature market economy is a combination of an effective government and an efficient market.

**Keywords:** Dual competition of market; Effective government; Efficient market; Mature market economy; Resource allocation; Resource generation

**Resource generation in the field of resource allocation: based on the defects in Adam Smith’s and John Maynard Keynes’ theories**

What would Adam Smith’s third book talk about?

Adam Smith’s ideas were shaped and influenced socially by the burgeoning Industrial Revolution of England, academically by the Physiocratic school of thought - best represented by François Quesnay and Anne Robert Jacques Turgot - and David Hume’s theories on money and trade, and philosophically by Francis Hutcheson, his mentor at the University of Glasgow. In particular, Francis Hutcheson’s philosophical thoughts, best encapsulated in his famous quote “That action is best which procures the greatest happiness for the greatest numbers”, exerted profound influence on Adam Smith’s inquiry into the (good) behavior of individual actors in society, the (good) behavior of market enterprises and the (good) behavior of national governments - which Adam Smith attempted to analyze in his later academic life.

Adam Smith’s first book, *The Theory of Moral Sentiments*, consists of seven parts. A keyword in this masterpiece is “sympathy”, which, like an invisible hand, regulates and adjusts individuals’ social behavior. In Adam Smith’s view, a balance must be achieved between selfishness and sympathy, with sympathy being the guiding moral imperative. This view has formed the basis for theories of human nature. It is in *The Theory of Moral Sentiments* that Adam Smith, for the first time in his academic career, presented the moral philosophy he had learned from his mentor Francis Hutcheson, which, again, can be best summed up in this famous saying: “That action is best which procures the greatest happiness for the greatest numbers.”

Adam Smith’s second book, *An Inquiry into the Nature and Causes of the Wealth of Nations* (generally referred to as *The Wealth of Nations*) is divided into five parts. In what is universally recognized as Adam Smith’s magnum opus, price, supply, and demand and competitive mechanisms of the market are identified as collectively forming an “invisible hand” that regulates commodity producers’ social behavior and promotes the organic integration between self-interest and altruism. Adam Smith’s “invisible hand” analogy is now regarded as laying the foundations of the classical-free-market economic theory. In *The Wealth of Nations*, Adam Smith applied the conceptual paradigm of his “invisible hand” analogy - which he first posited in *The Theory of Moral Sentiments* - to explore and explicate free market economies’ ability to self-regulate, thus once again introducing the gist of his mentor Francis Hutcheson’s moral philosophy: “That action is best which procures the greatest happiness for the greatest numbers.”

Since it is economic liberalism that Adam Smith proposes and advocates in *The Wealth of Nations*, he also enumerates the functions of the government in a society where free-market economics reigns. His elaboration on this subject is concentrated in Chapter I of Part V, covering national defense, judicial expenses and spending for public utilities and organizations (education spending included). In Adam Smith’s words, a government has three primary functions: defense against foreign invasions; guaranteeing justice for one’s own citizens; and the provision of public works. Regarding the third function, he holds that the provision of public works - highways, bridges, navigable canals and ports - is something that generates no profit for private capitalists if left to the market, and thus should be done and ensured by governments [1]. From this observation, Adam Smith follows that governments should play a role tantamount to that of a “night-watchman.” This “night-watchman state” assertion, appearing in Part V of *The Wealth of Nations*, has been broadened and expanded into the “minimal state theory” by libertarian economists who came after Adam Smith.

Following the completion of his first book *The Theory of Moral Sentiments* in 1758 and then his second book *The Wealth of Nations* in 1776, Adam Smith traveled from London to the customs house where his father once worked. He observed and pondered the daily goings-on in what was then esteemed as the real source of wealth and a key place for the concentrated exchange of interests between nations, with a view to writing a third book about “governments and laws” [2]. Regrettably, all of Smith’s manuscripts were burned to ashes after he passed away in 1790.

Then what would Adam Smith’s third book talk about? To answer this question, we must, once again, return to the philosophical wisdom of Adam Smith’s mentor Francis Hutcheson: “That action is best which procures the greatest happiness for the greatest numbers.” By analyzing social individuals’ selfishness and sympathy, Adam Smith formed the basis for theories of human nature and sketched the contours of humans’ moral behavior characteristics in *The Theory of Moral Sentiments*. By delving into market enterprises’ self-interest and altruism, Adam Smith laid the foundations for the classical free-market economic theory and explicated enterprises’ business behavior characteristics in *The
**Wealth of Nations.** Along with this line of reasoning, would Smith attempt to crystallize the basic functions of national economies and the management behavior characteristics of governments (in a legal sense) by analyzing nations’ local and global interests in his third book with a focus on “governments and laws”? With respect to individuals’ moral behavior, Smith revealed that it is the integration of self-interest and sympathy that results in the creation of an invisible hand that guides humans’ moral sentiments. As regards enterprises’ business behavior, Smith brought it to light that it is the integration between selfishness and altruism that gives rise to an invisible hand that guides the production of commodities and the formation of prices, supply and demand and competitive mechanisms. Then, what would Smith have to say about the visible hand of government management behavior? A combined analysis of Adam Smith’s economic thoughts and the philosophical thoughts he acquired from his mentor seems to indicate that he was studying behavioral science or to be more exact, was exploring the truths about human nature, enterprises, markets and state management by studying “behavioral science” and “behavioral economics.” What a shame it is that Adam Smith’s grand syllogism came short of producing a complete trilogy of economic masterpieces for the world.

Nevertheless, one thing is almost for certain that if Adam Smith were fortunate enough to have completed his third masterpiece, then his account and analysis of governments’ functions and managerial behavior would not have remained within or been limited to the confines of the three functions he had posited in Chapter I of Part V of *The Wealth of Nations*. Should that have been the case, he would not have limited the third function of governments (besides defense against foreign invasions and guaranteeing justice for one’s own citizens as the other two functions) to merely providing four types of public works - highways, bridges, navigable canals and ports whose development and operation he believed generate no profit for private capitalists if left to the market. It is lamentable, however, that today, more than 200 years after the publication of *The Wealth of Nations*, economic theories of various schools still fail to go beyond Adam Smith’s description of governments’ functions and managerial behavior.

**Contributions and defects of Keynesian economics**

In 1936, John Maynard Keynes’s magnum opus, *The General Theory of Employment, Interest, and Money*, induced and integrated quite many macroeconomic concepts from a macro perspective and ushered in a new chapter of economics in the 20th century. First, drawing on his special experience as both a government official and an economist, Keynes found and proposed a new sector for economic growth: it was neither “foreign trade” as advocated by mercantilists nor “agronomy and rational husbandry” as promoted by Physiocrats nor “material good production” and “industry economy” as championed by Adam Smith; rather, it is investment in public works, public goods and infrastructure. Second, governments should be the primary entity for infrastructure investment; or to put it in another way, governments should be the primary entity for economic intervention or for promoting economic growth in this new sector.

Third, it is fiscal policies rather than monetary policies that governments should adopt as their principal approach to promoting infrastructure investment. Fourth, Keynesian economics, therefore, goes beyond the constraints of commodity and price analysis. On one hand, classical economics and neoclassical economics apply the formation of commodity prices →revolve around material good production →persistently insist on enterprises being the principal entity of free market economies →both promote economic growth in ways that respect and adhere to market principles. On the other hand, Keynes and Keynesianism invoke the power of the state to invest in public works and public goods →revolve around infrastructure investment or urban economic expansion →insist on governments being the principal entity of infrastructure investment →advocate the implementation of proactive fiscal policies by governments to promote economic growth. Hereby, judged from the historical trajectory of economic growth, Keynes and Keynesianism did enable economics to develop in ways that break the confines of commodity and price analysis. This is where Keynes and Keynesianism are most successful and figure most prominently among economists and economic schools of thought.

As Keynesianism and related policies are practiced in greater depth and breadth, however, it has been found that Keynes did not draw a solid, clear line of demarcation between public works (public goods) and material goods; instead, consciously or unconsciously, he categorically and naturally put public works and public goods into the framework of commodity and price analysis; and that Keynes did not rigorously define and differentiate the differences between urban infrastructure and material good production and those between urban economy and industrial economy. In fact, the primary motive behind his proposal for government intervention was to tame unemployment and boost economic growth. Government intervention measures, as Keynes advocated, should be for conducting investment in infrastructure, public works, and public goods; proactive fiscal policies should be at the center of government intervention; infrastructure, urban infrastructure in particular - which falls within the category of the urban economy - should be the area of government intervention. This is exactly the sphere where significant progress and profound development were not yet seen at the time of Adam Smith. 160 years later (from the publication of *The Wealth of Nations* in 1776 to that of *The General Theory of Employment, Interest, and Money* in 1936), although he defined public works and public goods as belonging to a semi-autonomous area between private investors and national governments, Keynes did not, in a full, categorical and unequivocal way, pointed out that they fall within the category...
of urban economy instead of that of industrial economy. Unlike the industrial economy, urban economy is a new economic sector and a new form of resource generation. A confusing urban economy with the industrial economy will produce a series of contradictory and unjustifiable statements about economics and market economic theories.

It has also been found that Keynes did not rigorously differentiate the differences between participatory entities in the urban economy (urban economy) and those in the industrial economy: enterprises are entities in commodity production of the industrialeconomy, while infrastructure investment of urban economy involves governments as principal entities as well as private investors and investor alliances. Keynes and Keynesian economists either devoted no serious effort to making such differentiations or simply confused government participation and intervention in an urban economy with enterprise participation in the industrial economy, thus leading to repeated occurrences of the economic assertion that governments compete with enterprises for a share of the spoils in industrial economic sectors or in market economies. This has since caused a series of theoretical problems and practical disputes among economists, as evident by the fact that whenever government intervention is put on the table as an option to be considered, there is always desperate opposition either from the so-called defenders of Adam Smith’s classical economics and Alfred Marshall’s neoclassical economics, or from the self-proclaimed champions of free market economies.

It has been further found that Keynes and Keynesianism did not go as far as to clarify whether market rules should apply only to commodity production in the industrial economy or extend their application to cover investment behavior for public works and public goods of urban infrastructure in the urban economy. Because of this, Keynes and Keynesianism did not make it clear whether governments - as a participatory entity in urban infrastructure investment - should follow market rules when conducting investment in public works and public goods. Finally, further analysis shows that there are other issues that Keynes and Keynesianism did not clarify. For example: is there any competition between governments in the same geographical region, between governments and private investors and between governments and investor alliances when it comes to conducting investment in infrastructure, urban public works, and public goods? How are governments’ respective roles to be differentiated and defined in the development of the industrial economy and the expansion of urban economy? After finding a new sector for economic growth - in this case meaning urban infrastructure investment, Keynes and Keynesian economists began delving into studying related substantial problems and promoting related policies, hurriedly and hastily, without regards for related fundamental economic theoretical issues in need of clarification in the first place. In this way, consequently, they caused confusion and ambiguity between hypothetical premises and fundamental analysis of their theories, creating what is technically termed a “zone of ambiguity,” which has led to endless bickering among economists of succeeding generations. This probably explains why Keynesianism’s strengths are oftentimes turned against itself.

Resource generation in resource allocation

Resources scarcity and resource generation are twins in resource allocation

Why did Keynes and subsequently Keynesianism fail to explain and address the afore-mentioned problems within the ambit of economic principles and theories? To answer this question, it is necessary to turn again to The Wealth of Nations by Smith, the father of modern economics.

While expounding his views on economic activities in human society in The Wealth of Nations, Smith put forth two hypotheses - self-interest in economic actions and resource scarcity. According to his first hypothesis, the organic integration between self-interest and altruism in commodity economies - meaning that the intended pursuit of self-interests by individuals frequently produces unintended benefits for society - becomes an “invisible hand” that leads to the formation of commodities, prices, supply and demand, competition and ultimately market rules. In the light of the second hypothesis, resource scarcity compels economies to invariably follow one simple principle in their identification of regulatory targets: achieving optimal resource allocation and sound economic development. The “invisible hand” analogy and market principles derived threfrom have long since become the “gospel” for classical and neoclassical economists. As to the “scarcity principle” in “resource allocation,” it is treated by both liberal and Keynesian economists as the point of departure for economic studies.

It is undeniable that resource allocation is of primary importance and that there exist necessary connections between resource allocation and resource scarcity and that the law of resource scarcity has become the point of departure for economic studies. The thing is, however, that we cannot study the full spectrum of resource allocation without discussing, pondering over and exploring issues pertinent to resource generation. When Smith published The Wealth of Nations in 1776, the Industrial Revolution was still in its infancy. The term “resource allocation” as discussed in Smith’s book referred entirely or merely to the allocation of industrial resources related to commodity production, exchange, and consumption - labor, capital and goods. Around 1776, urban infrastructure in the U.K. remained in its early stage of development, with only simple roads, bridges, canals, and ports to be found existent. Infrastructural facilities then looked nothing like what they would appear in the time of Keynes - more than a century later - when infrastructure investment was able to help alleviate massive unemployment and economic depression.
Infrastructure development in modern societies should encompass hardware investment projects, software investment projects and other projects needed for the purpose of building smart cities. As a new driver for economic growth, these projects, collectively known as urban resources (new resources - new resource generation), are distinctly different from industrial resources in properties and allocation approaches. Moreover, resources in urban sectors are instrumental for economic growth in a different way than those in industrial sectors. Urban resources - resource generation - are critical for resolving this contradiction that has long plagued economic theorists: Keynes had found, on the one hand, a new sector for economic growth, but on the other hand adhered rigidly to the industrial economic mindset for analyzing and addressing problems. Resource generation and resource scarcity must be twins when it comes to resource allocation in economics, in the sense that they constitute two inseparable aspects for keeping economic resource allocation theories relevant to economic development and the progress of the times. Urban resources - resource generation (certainly with space resources and deep-sea resources to come in the future) are different from industrial resources - which Smith studied in his time - in properties, subjects, functions and the roles they play in economic sectors and economic theorization.

**Resource generation - generative resources**

Three characteristics must be met for resources to be called generative resources derived from resource generation: 1) dynamics; 2) economy; 3) productivity.

Resource generation is not a product of planning and programming but something of a generative and productive nature, which derives from converting from a static to a dynamic state what has been in existence or what will come into existence to meet objective demands that arise out of the progress of the times. Take, for example, a massif. When it is left untouched, it exists as a form of static natural resources; once it starts being developed, it is converted from a static to a dynamic state, thus generating productive factors and becoming an important form of economic resources. It is clear to all that waters, forests, prairies and other static landscapes exist as natural resources but will turn into economic resources once placed under dynamic development. Urban infrastructure, whose existence and development are to meet objective demands that arise out of the progress of the times - including hardware and software facilities and facilities built in the process of smart city development - also fits the categorical characteristics of resource generation. Urban infrastructure, therefore, is, in and of itself, another type of generative resources following industrial resources - what is called urban resources.

Of course, there are also space resources, which are quite similar to urban resources. As far as the solar system is concerned, for example, mineral resources exist in abundance on the moon, Mars, planetoids, and other celestial bodies, and rich hydro genic resources are in existence on Jovian planets and comets. Moreover, there are vacuum resources, radioactive resources and temperature difference resources in planetary and interplanetary space, as well as orbit resources, microgravity resources and other resources derivable with the use of aerospace craft. These resources, when remaining in a static state, exist as natural resources. Immediately upon being placed under exploitation and development, they will generate productive factors and thus become important valuable economic resources. Is it possible then for national governments not to play a role as an important entity in the generation, development, and utilization of such resources? Can we still explain and promote the generation, development, and utilization of such resources by rigidly applying economic principles that govern traditional industrial commodity economies? The answers to these two questions are obviously a resounding and unequivocal “no.” In fact, when it comes to the generation, development, and utilization of urban resources, governments play a role different from the one they play in promoting industrial economic development.

Urban resources, in a broad sense, include industrial resources, livelihood resources and infrastructure or public utility resources. In a narrow sense, urban resources refer to urban infrastructure which includes not only hardware public facilities such as roads, railways, airports, communications facilities and facilities for the supply of water, electricity, natural gas, etc., but also software public facilities associated with education, science & technology, health care, sports and culture, and even projects needed for the development of smart cities amidst the ongoing urban modernization process. Hardware public facilities refer principally to system engineering infrastructure in six categories: energy supply systems; water supply and discharge systems; transportation systems; post and communication systems; environmental and sanitation systems; defense, disaster prevention and safety systems. Software public facilities refer mainly to social infrastructure that supports administrative management, culture, education, health care, commercial services, finance, insurance, social welfare, etc. Along with the ongoing process of urban-rural integration, the category of urban infrastructure is being expanded to also encompass rural productive infrastructure, rural living infrastructure, eco-environmental infrastructure and rural social development infrastructure. Project series, which have been developed for smart cities, have in an economic sense become new generative resources that are of a basic, non-tradable and quasi-public-good nature. Such generative resources constitute a new sector for economic growth and create new pathways for innovation in economic theory.
National governments allocate three categories of economic resources: as viewed from the practices and development of economics across the world

Three categories of resources in cities

Let’s now return to reality. The 21st century is a century in which economic development, urban construction, and social welfare improvement coexist and complement one another for synergistic prosperity. In real life, the role of national governments is manifested in three aspects: resource allocation, resource management, and policy formulation - this, in specific terms, means that national governments economically categorize all types of existing resources in their respective countries, optimize their allocation and devise corresponding policies.

Resources pertinent to economic growth are referred to as operative resources in a market economy. They exist primarily in the form of industrial resources. In traditional economics, it is enterprises that serve as organizations corresponding to such resources, or to put it in another way, play a principal role in promoting industrial economic development. Despite their differences in institutional setups for coordination, supervision and management, national governments across the world share similarities in their policies and principles for allocating such resources, which could be summed up as follows: planning, guiding, supporting, adjusting, regulating and managing, all for the sake of unleashing the vitality of operative resources. This point has been quite clearly understood theoretically.

Resources corresponding to social welfare are referred to as non-operative resources in a market economy. They exist principally in the form of social public goods. In traditional economics, it is governments that serve as organizations corresponding to such resources, or to put it in another way, play a primary role in providing social public goods. Though different in names, government organizations for coordinating, regulating and managing non-operative resources are quite similar in essence. They also share similarities in their policies and principles for allocating such resources, which can be encapsulated as follows: providing social security, guaranteeing basic needs, ensuring equity and fairness and striving for improvements. There has been a consensus among national governments in their practical understanding of this point.

Resources corresponding to urban construction are referred to as quasi-operative resources in a market economy, which mainly exist in the form of urban resources. Quasi-operative resources are so called because they belong to a “borderline section” in traditional economics. In more specific terms, they are classified as a cross-field between governments and enterprises in traditional economics, meaning that investment and development of urban infrastructure can be done by both enterprises and governments as means to enhance economic development and improve social welfare. It is therefore in the field of quasi-operative resources that attempts will be made to probe into resource generation and infrastructure investment and to take our theoretical economic analyses to a new level.

When it comes to allocating these three categories of economic resources, three perspectives can be drawn from both theory and practice. First, operative resources - including industrial resources and industrial economy - should be allocated in a market-oriented way. This will mean that by using capitalization-related means, measures and methods, national governments must entrust as many operative resources as possible to enterprises, investors (both domestic and foreign) and other non-governmental actors for their care, protection, and provision. Government policies for supporting the allocation of operative resources should be devised according to the principle of “planning, guiding, supporting, adjusting, regulating and managing.” Second, given that non-operative resources - including public goods and livelihood-related economic sectors - are beyond the reach of enterprises, national governments should take full responsibility for construction, management, and development of such resources in order to ensure that they are supplied sufficiently to meet basic needs. Government policies for supporting the allocation of non-operative resources should be devised according to the principle of “guaranteeing basic needs, ensuring equity and fairness and striving for improvements.” Third, with respect to quasi-operative resources, which, in a narrow sense, cover urban resources and urban economy, they can be developed and allocated by enterprises as operative resources; or, they can be operated and managed by governments as public welfare projects for non-profit purposes. Whether they should be left to the invisible hand of the market or the visible hand of governments should be determined on the basis of three factors: a government’s fiscal standing, market demand and the level of public acceptability. In practice, when it comes to investment, development, and construction of urban infrastructure - quasi-operative resources, two problems should be solved: how to ascertain the investment vehicles and how to operate the investment funds.

As regards investment vehicles, if the investment, development, operation, and management of urban infrastructure - quasi-operative resources - are left to the invisible hand of the market, then national governments can form vehicles for infrastructure development projects through sole proprietorship, joint ventures, cooperation, shareholding, the GOCO (Government-owned, Contractor-operated) model and by other means. Investment vehicles under these ownership forms are helpful in two ways. On the one hand, they can achieve effective financing, optimize investment structures and promote steady
socio-economic development in light of market needs, aggregate supply, and the objective trends of economic development at home and abroad. On the other hand, they can effectively regulate market forecasts while avoiding massive losses by preventing the recurrence of problems that once plagued certain national governments in urban infrastructure development: for example, “providing only gratuitous, service- and sharing-based public goods to the public; investing without regards for returns; undertaking development without regards for operation; one-sidedly valuing urban infrastructure’s social nature over its economic nature; one-sidedly valuing urban infrastructure’s public welfare nature over its economic benefits; (thus resulting in) enormous wastage of urban resources, redundancy and waste of urban infrastructure as well as low-level, low-efficient and disorderly urban economic management”.

With respect to capital operation, if the investment, development, operation, and management of urban infrastructure - quasi-operative resources - are left to the invisible hand of the market, then national governments can raise funds through capital market by adopting the following measures: (a) issuing bonds or convertible bonds; (b) issuing stocks; (c) setting up project funds or enlisting support from fund investment projects at home and abroad; (d) reversing IPO with projects as entities; (e) asset-backed securitization; (f) mergers & acquisitions and bundling operation; (g) leasing; (h) mortgaging; (i) substituting; (j) auctioning, etc. National governments can raise funds by capitalizing on their pricing and fee collection power and by using such forms of franchise financing as BOT (Build-Operate-Transfer) and TOT (Transfer-Operate-Transfer) - for example, by adopting the “PPP” mode (Public + Private = Partner) as an equity vehicle or by applying the “PPC” (Port-Park-City) mode as a development model. The overarching objective for national governments in this regard should be to build a fully-fledged economic ecology for infrastructure investment and development, one that integrates infrastructure, logistics, finance and industrial parks together. By so doing, national governments can break the financing bottleneck by fully tapping into the power of leverage of their limited public financial resources, so as to effectively meet the ever-growing public demand for public goods and welfare services.

The investment, development, operation, and management of quasi-operative resources - urban infrastructure - should be done and achieved according to the principle of “government promotion, enterprise participation and market-based operation.” This has allowed three messages to come through loud and clear from the get-go: (a) national governments are one of the participants in urban economic management; (b) national governments should or must act by respecting and observing market principles where the investment, development, operation, and management of urban infrastructure are concerned; (c) national governments play a macro role tantamount to that of an instructor, regulator, and supervisor in this regard. Therefore, this principle should also serve as a guide for devising policies that support the investment, development, operation, and management of quasi-operative resources - urban infrastructure.

The dual natures of government

National governments have three economic functions respectively in the areas of economic development, urban construction, and social welfare improvement. From an economic standpoint, national governments perform their economic functions by managing or setting up institutional arrangements for matters in these three areas within their jurisdictional regions with the aid of supporting policies, for the ultimate sake of achieving best possible economic development and social stability with minimum costs possible.

Governments are of a “micro” nature. By planning, guiding and supporting the allocation of operative resources (also known as industrial economy) and by engaging in the investment and operation of quasi-operative resources (largely in the form of urban infrastructure), governments thus become and act as a collective agent for non-governmental micro interest entities within their jurisdictional regions, while at the same time competing with their counterparts in other regions through innovation at notional, institutional, organizational and technological levels for the sake of maximizing the economic benefits for their jurisdictional regions. Under such circumstances, governments play a “quasi-micro” role: on one hand, governments and enterprises vary in behavioral objectives, developmental modes, regulatory factors and evaluation criteria; on the other hand, given that national governments and enterprises are both resource allocators exercising internal management within a certain ambit, competitive mechanisms are always in existence between national governments and between enterprises, serving as primary drivers for the development of national economies and enterprises. As such, national governments and enterprises must conduct their actions under the premise of respecting market economic rules - under such circumstances, governments’ regional jurisdictional authority is converted into regional management authority, which means that governments allocate resources in the interest of maximizing benefits for their jurisdictional regions, with priority placed on business attraction, development, investment, operation and management of urban infrastructural projects. Consequently, with their actions restricted by not just political but economic constraints, governments, by being effective and competent, can help boost the competitive edge of their jurisdictional regions and ultimately propel their regions to become one of the pioneers in achieving economic and social transformation. Therefore, all things considered, governments are of a micro nature in a certain way.

Governments are of a “macro” nature. As entities that exercise authority over their jurisdictions, national governments are able
to adjust, regulate and manage operative resources (industrial economy) and provide sufficient social welfare services and public goods according to the principle of “guaranteeing basic needs, ensuring equity and fairness and striving for improvements.” By so doing, national governments are in a position to control and regulate the economy by such means as planning, investment, consumption, prices, taxation, interest rates, exchange rates and legislation while improving social stability by providing basic social support and public services. Under such circumstances, national governments play a “macro” role, which means that they promote the performance of their jurisdictional regions’ political, economic, urban and social functions by use of the public and coercive power bestowed upon them. They generally undertake the following responsibilities where economic development and urban construction are concerned: proactively studying and formulating medium- and long-term plans for socio-economic development in their jurisdictional regions; promoting a dynamic balance between total supply and total demand within their jurisdictional regions; devising economic, industrial and technological policies; investing heavily in infrastructural development; providing public goods and services; effectively adjusting income distribution and redistribution; maintaining aggregate economic growth, improving structural economic balance and driving the growth of cities while simultaneously safeguarding market rules and order, controlling price hikes, taming unemployment and advancing social harmony and sustainability in their jurisdictional regions. In real practice, the “macro” role of national governments finds its expression in their actions of balancing revenues and expenditures. In terms of revenues, governments keep themselves up and running and fulfill their functions by using fiscal and tax revenues, transfer payments, equity revenues and revenues from other sources. As regards expenditures, governments, by proper use of financial purchase expenditures and transfer expenditures, put in place social consumption expenditures - which include mobility management spending, national defense spending, spending on education, culture, science and public health as well as spending for industrial, commercial, transportation and agricultural departments, financial investment expenditures - which cover infrastructural investment, scientific and technological R&D investment, policy-guided financial investment in industries in urgent need of a boost, and transfer expenditures - which comprise social security spending and grant-in-aid spending. Falling into the category of government purchase expenditures, social consumption expenditures and financial investment expenditures have direct impacts on the allocation of social resources and all sorts of factors. For this reason, the sizes and compositions of expenditures in these two categories can be seen as roughly reflective of the scope and intensity of a government’s direct intervention in resource allocation; more specifically, their sizes and compositions are indicative of a government’s level of capability to directly allocate social resources as well as of its reach and influence in social and economic spheres. Transfer expenditures have indirect impacts on the allocation of social resources and all sorts of factors and are helpful in assisting the implementation of policies aimed at social equity and fairness [3].

There is a dialectical unity between the “dual natures” of governments. “Region” is a relative concept: every country, if viewed from a global standpoint, is a region; every city, if judged from a national perspective, is also a region. The “dual natures” of governments are intrinsically reflected in two aspects: one aspect is governments’ supply of institutions, including the supply of policies, laws, and regulations for ensuring that all types of public goods and public welfare services are guaranteed and provided in a fair, equitable manner; the other aspect is governments’ role in economic regulation, as mainly manifested in governments’ support and assistance for industrial development as well as their investment in urban infrastructure - all for the sake of guiding industrial transformation and upgradation and advancing urban modernization. These two aspects, it is fair to say, are in a relationship of dialectical unity. It is such “dual natures” of governments that have corrected the defects of traditional economics or traditional market theories, thus writing a new chapter of modern economics and modern market theories. As revealed by modern market theories, enterprises constitute the primary entities of market competition in the industrial economy, while governments represent the major entities of market competition in the urbaneconomy. Modern economics also shows it is imperative that there exist not only microeconomics and macroeconomics - respectively having enterprises and the world as their research objects - but also mezzo economics which take national governments as its research object.

The dual entities of market competition

Three observations can be extrapolated from the above analysis.

There is an external possibility for national governments to engage in competition. Two things have been clear to us regarding the nature of a national government’s management of its jurisdictional region. Firstly, such governance is public in nature, mainly in the sense that the government secures public spending for the region through measures related to taxation, commerce, and industry, public security and regulation, protects the market and social stability and ensures openness, fairness and equity. Second, such management is also mandatory in nature, as evidenced in large part by the government’s extra-economic coercive power in legislative, administrative and judiciary realms as well as by its coercive economic power in the form of administrative and financial authority. On the surface, such management finds its expression in a government’s economic functions in terms of economic development, urban construction and social welfare. In essence, such management finds its manifestation in a government’s effective allocation of resources - both tangible and
intangible - that are currently and potentially available within its jurisdictional region. As resoundingly indicated by past practices throughout the world and by China’s success story of reform and opening up, governments, while ensuring sufficient provision of social welfare services and public goods within their jurisdictional regions under the principle of “guaranteeing basic needs, ensuring equity and fairness and striving for improvements”, would allow non-governmental actors to develop, operate and manage a part of or most of the urban infrastructure through market mechanisms, in order to prevent idleness and waste of urban resources - urban infrastructural facilities in particular - and avoid low-efficient urban construction and disorderly urban management.

As “quasi-operative resources”, the urban infrastructural facilities, when left to the invisible hand of the market for development, operation and management, are converted into “operative resources”, and in this process, their investment vehicles, or in more specific terms, the ownership structures of urban infrastructure project companies - whether in the form of sole proprietorship, joint ventures, cooperation or shareholding, or even GOCO (government-owned, contractor-operated) - should be identified and ascertained in ways that follow market rules. The capital operation for infrastructure investment - whether for the purpose of raising funds by using such forms of franchise financing as BOT (Build-Operate-Transfer) and “PPP” (Public + Private = Partner) or of making infrastructure projects bigger and stronger through the issuance of bonds and stocks - should be done through market-based competition. In sum, there is an external possibility for national governments to compete in economic development and urban construction, and such an external possibility is derived from the fact that the principle of “government promotion, enterprise participation, and market-based operation” should be used to guide the allocation of urban infrastructure - “quasi-operative resources.”

There is an intrinsic necessity for governments to engage in competition. As previously stated, two things have come through clearly to us regarding governments’ macro and micro roles in allocating the three categories of resources.

National governments play a macro role in allocating “non-operative resources” and “operative resources.” This is evident as follows. 1) National governments adjust, regulate and manage “operative resources” (industrial economy) and provide sufficient public goods and social welfare services according to the principle of “guaranteeing basic needs, ensuring equity and fairness and striving for improvements.” 2) In real practice, national governments fulfill their public and coercive power by allocating fiscal and tax revenues for expenditures in three categories: social consumption expenditures - which include administrative management spending, national defense spending, spending on education, culture, science and public health as well as spending for industrial, commercial, transportation and agricultural departments, financial investment expenditures - which cover infrastructural investment, scientific and technological R&D investment, policy-guided financial investment in industries in urgent need of a boost, and transfer expenditures - which comprise social security spending and grant-in-aid spending.

National governments play a micro role in allocating “quasi-operative resources” and “operative resources.” By planning, guiding and supporting the allocation of “operative resources” (industrial economy) and by engaging in the investment and operation of “quasi-operative resources” (urban infrastructure), governments thus become and act as a collective agent for non-governmental micro interest entities within their jurisdictional regions, while at the same time competing with their counterparts in other regions through innovation at ideological, institutional, organizational and technological levels for the sake of maximizing the economic benefits for their jurisdictional regions. Under such circumstances, governments’ regional jurisdictional authority is transformed into regional management authority, which means that governments allocate resources in the interest of maximizing benefits for their jurisdictional regions, with priority placed on business attraction, development, investment, operation and management of urban infrastructural projects.

In sum, there is an intrinsic necessity for national governments to compete in economic development and urban construction, and such an intrinsic necessity is shown in the dual roles of national governments and their regional competitiveness derived therefrom.

There exist two entities in market competition. A new chapter in the development of modern market economies can be written by analyzing governments’ economic activities, repositioning the three categories of governments’ economic functions, redefining the major roles of governments in the allocation of three types of resources, effectively establishing the different primary roles of governments and enterprises in urban or industrial economic activities and exploring and delving into the dual roles and special functions of governments on both the micro and macro levels. This new chapter comes with these three important theories.

First, the theory of the government’s dual natures (Vide supra: to avoid duplication, no further illustration will be given here).

Second, the theory of the dual entities in market competition. On the one hand, the theory of “dual entities” in dual-level market competition categorically states that there exist two competitors in market: enterprises and governments; competition between enterprises is in progress predominantly in industrial economic sectors, while competition between governments is in progress mostly in urban economic sectors; there is largely no competitive
relation between enterprises and governments in industrial economy. On the other hand, the theory of “dual entities” in market competition reveals that competition between governments is concentrated, by and large, in urban infrastructure investment, development, operation, and management. To put it in another way, governments compete primarily for all sorts of resources that bear on urban economic development - both tangible and intangible – for the sake of optimizing urban resource allocation and improving the efficiency and returns of urban economic programs within their jurisdictions. Supporting policies and measures pertinent to such competition revolve around the leading edges and sustainable development of urban economic sectors within their respective jurisdictions. In short, there is a dual-level competition system in any given modern market economy, namely, competition between governments on one level and competition between enterprises on the other. No competition, however, exists between enterprises and governments, which means that these two systems operate independently of each other, but they are complementary in functions.

Third, the “dual-strong mechanism” theory for mature market economies, which specifies that a mature market economy is made up of an “effective government” and an “efficient market.” It is necessary for modern market economic theories to not only shed light on the importance of having an “efficient market” where the “invisible hand” assumes primacy in allocating urban and industrial economic resources and where market principles and rules exert fundamental impacts on competition in urban and industrial economic sectors, but also spill some ink arguing for the imperative of having an “effective government” that performs its roles and functions as an urban economic market entity while, as dictated by its dual natures, planning, guiding, supporting, adjusting, regulating and managing industrial economic sectors. The “dual-strong” operating mechanism - consisting of an “effective government” and an “efficient market” - constitutes, in the real sense of the term, a mature modern market mechanism. A modern market mechanism should be focused not just on the improvement and development of the industrial economy, but also on resource allocation in the urban economy, regional competitiveness, and regional sustainability. All these aspects combine to form a fully-fledged system of a modern market economy. The “dual-strong mechanism” theory is instrumental for guiding the development of economies around the world and for elevating and evolving modern economic theories.

China’s market economic practice: slowly but surely moving towards a high-quality economy with effective government and an efficient market

Modern market economy and mature, effective government

The horizontal system of a modern market

From prior systematic analysis, we can see that a modern market’s horizontal system is teeming with market entities that on the whole, fall into four categories: enterprises as market entities in industrial economy, governments and enterprises in urban economy, governments and enterprises in international economy for providing international “quasi-operative resources” (quasi-public goods), and governments and enterprises in space economy and maritime economy for exploiting space resources and deep-sea resources respectively. Three points can thus be drawn from this analysis. For starters, markets exist not just in the industrial economy but also in other economic configurations. Next, there exists dual-level competition between enterprises and governments across the horizontal system of a modern market (including industrial economy, urban economy, international economy, space economy and maritime economy). Finally, industrial economy constitutes the fundamental sphere of a market economy, whereas urban economy - which encompasses international resources, space resources and deep-sea resources being exploited and developed over time - represents the generative sector. Independent and yet interconnected, industrial economy and urban economy belong to competition systems at different levels of a modern market economy. In other words, market competition systems at different levels, when taken together, form a modern market economy.

The vertical system of a modern market

The vertical system of a modern market, according to modern market system theories, should at least encompass the following key building blocks.

A. A market element system, which practically consists of a variety of markets (including commodity markets, element markets, and financial markets) as well as the most cardinal market elements such as prices, supply, and demand, competition, etc.
B. A market organizational system, which consists of all kinds of market entities, market intermediary agencies and market management organizations.

C. A market legal system, which encompasses legislative, law enforcement, judiciary and law-related educational institutions.

D. A market supervisory system, which exercises supervision regarding organizations, businesses, markets, and policy & law enforcement.

E. A market environment system, which mainly includes a well-designed real economic foundation, a corporate governance structure, and a social credit system.

F. Market infrastructure, which refers to an integrated system with software and hardware facilities. Necessary infrastructural facilities of a mature market economy include payment & clearance systems of all markets as well as and high-tech information systems.

Building a modern market system or, to be more exact, a modern market’s vertical system is a historical process that cannot be accomplished overnight.

Over the infancy period of its market economy (between the post-independence period from 1776 to 1861 and the post-Civil War period from 1865 to 1890), laissez-faire economics was held in high esteem in America, which resulted in robust development and improvements of America’s market element system (Market System A as mentioned above) and market organizational system (Market System B), at a time when fervid objection to government intervention was the prevailing sentiment of the day. In 1890, the US Congress promulgated the Sherman Antitrust Act, which was America’s first federal statute to prohibit trusts and monopoly. In 1914, the Federal Trade Commission Act and the Clayton Antitrust Act were passed as complements to the Sherman Antitrust Act. Henceforth, America’s antitrust system and regulatory measures have undergone a century-long process of evolution and perfection, resulting in significant improvements and upgradation of the country’s market legal and supervisory systems along the way. In other words, Market System C and Market System D have emerged on a par with Market System A and Market System B in the vertical system of America’s modern market during this period, with the entire market system exhibiting a prominent pattern featuring dynamic coexistence between monopoly and competition and between development and supervision.

As of the 1990s, two predominant trends occurred: first, the US government, instead of confining its antitrust goals to simply preventing and clamping down on market monopoly and price manipulation, undertook effective measures to combat technical monopoly and Internet oligarchy beyond the realm of IPR protection; second, against the backdrop of explosive growth in ICT (information and communication technology) and network technology, market-driven innovation and system infrastructure regeneration became the prominent manifestations of market competition. At this time, remarkable achievements were recorded regarding the development of market infrastructure and environment, including the enhancement of market infrastructural facilities pertinent to registration, settlement, trusteeship and backup, the increase of capabilities against disasters and technical malfunctions, the upgradation of market information system and credit system, as well as the sharing of market regulation-related data. Consequently, America’s market credit system and infrastructure were further optimized and enhanced, which meant that in addition to the systems in categories A, B, C and D (namely, market element system, market organizational system, market legal system and market supervisory system), the systems in the E and F categories were also being constantly perfected, culminating in the creation of a mature modern market system where market competition was driven by total factor productivity and system participation. As far as the six major aspects that make up a modern market system (or a modern market’s vertical system) are concerned, their functions work or will work on all sectors of a modern market’s horizontal system. To put it another way, modern market systems, with their power for incremental self-perfection in the course of history, act not only on industrial economic sectors that form the basis of a national economy, but also increasingly on urban economic sectors as a growing number of resources are being generated and generative resources of various kinds are being developed and exploited. Moreover, they will further extend their action to space and maritime economic sectors whose development and exploitation are scaling new heights with each passing day. Participatory entities vary in different sectors and in different types of commodity economies, element economies and project economics. Whatever their differences, however, all participatory entities need to see constant improvement and perfection regarding the functions of the six aspects of a modern market system (or the vertical system of a modern market). Certainly, for this to happen, it requires contemporary economic theorists as well as political states across the world to never relent in their efforts to better understand, improve and perfect modern market theories.

Categorization of efficient markets and effective governments

Based on Eugene F. Fama’s Efficient Market Hypothesis (EMH), which categorizes markets into strong-form, weak-form and semi-strong form markets, we propose that the efficiency of a modern market can be defined and assessed according to the degree to which it brings the functions of its six functional aspects into play. Under this premise, we follow that a market economy consisting of Market System A (a market element system) and Market System B (a market organizational system) should be regarded as a weak-from efficient market. A typical example in
this regard is the US market from 1776 (when the USA declared its independence) to the year 1890. A market economy can be deemed as a semi-strong efficient market if it consists of a well-established market element system and a market organizational system and is taking steps to perfect its legal market system (Market System C) and supervisory system (Market System D). The US market between 1890 and 1990 falls into the semi-strong efficient market category. A market economy can be considered as a strong-form efficient market only when it encompasses a fully-fledged market environment system (Market System E) and a well-designed market infrastructure system (Market System F), along with market systems in Category A, B, C and D. Since the early 1990s, the US market has been moving towards becoming a strong-form efficient market. This methodology of categorizing markets into “strong-efficient forms”, “weak-efficient forms” and “semi-strong efficient forms” based on the maturity and levels of development of a market’s six functional systems (A, B, C, D, E and F) is able to shed light on the history of a market economy and its evolutionary process. This methodology is also convenient for clear-cut delimitation, empirical research and practical assessment when it comes to the study of the market. By shaping a mature modern market system, countries throughout the world will be in a better position to bring out the functions of their market economy for the benefit of economic growth, urban construction, and social welfare improvement.

In accordance with the above-mentioned line of reasoning, we propose the Effective Government Hypothesis which corresponds with the Efficient Market Hypothesis - the essence of this hypothesis is to categorize governments into weakly effective, semi-strongly effective and strongly effective forms based on what kind of a role they play in the allocation of resources.

In the previous elaboration of “resource allocation,” “resource scarcity” and “resource creation,” we have touched upon the three types of resources in real economic operation across the world - namely, “non-operative resources,” “operative resources” and “quasi-operative resources.” In the previous illustration of the dual natures of government, we have set out three principles that government should adopt to respectively guide its supporting policies regarding the allocation of these three types of resources: the principle of “guaranteeing basic needs, ensuring equity and fairness and striving for improvements” when it comes to allocating “non-operative resources” that correspond to public and livelihood-related sectors in real life; the principle of “planning, guiding, supporting, adjusting, regulating and managing “with respect to allocating “operative resources” pertinent to economic growth in market economy; the principle of “engaging in market competition, maintaining market order and observing market rules “for the allocation of “quasi-operative resources” that, in a narrow sense, exist mainly in the form of urban resources.

We therefore posit that governments around the world can be divided into three types depending on their ways of dealing with the allocation of the three types of resources.

First, a government can be called a “weakly effective government” if it focuses merely on the allocation of “non-operative resources” and on the formulation of corresponding policies. Such a government, under the belief that its role stops when it has provided basic social welfare services, has neither a clear understanding of nor specific measures for the allocation of “operative resources”; it is unable to clearly define and delimit “quasi-operative resources”, still less to devise well-directed measures for allocating them.

Second, a government can be labeled as a “semi-strong effective government” if it lays stress only on the allocation of “non-operative” and “operative resources”. In addition to fulfilling its public duties and responsibilities regarding social security, a “semi-strongly effective government” also keeps taking the pulse of the market to see how it is operating, or will seek to macro-control, adjust and intervene in the economy by use of effective demand or effective supply policies whenever the market malfunctions for the sake of preventing severe losses and damages caused by an economic slump. A “semi-strongly effective government” might also strive for a dynamic equilibrium between total supply and total demand with a master plan for strategic economic development, which includes the following measures: planning and guiding industrial layout; supporting and adjusting productive and operative activities; tightening up regulation to ensure openness, equity and fairness in market competition; curbing the spike of commodity prices; controlling unemployment. Nevertheless, a government of this sort still fails to have a clear-cut understanding and definition of “quasi-operative resources”; nor does it succeed in fostering responsive policies and measures for the management of such resources.

Third, a government can be described as being “strongly effective” if it not only attaches importance to the allocation of “non-operative resources” and “operative resources,” but also seeks to facilitate the efficient allocation of “quasi-operative resources” with well-designed policies. A “strongly effective government” will seek in every possible way to achieve efficient allocation of resources in all three categories, such as by bringing into full play its role in economic positioning, economic adjustment and early warning, tapping into market rules and mechanisms, leveraging the instruments of investment, consumption, export, pricing, taxation, interest rates, exchange rates, policies and laws, and fostering institutional, organizational, technical and philosophical innovation. The efficient allocation of non-operative resources can lead to an improved environment for economic growth; the efficient allocation of operative resources is conducive to boosting economic vitality and synergy; the efficient allocation of quasi-
operative resources can help create leading edges and bring about the comprehensive, scientific and sustainable development of national economy. It is therefore fair to say that fostering a “strongly effective government” is the pathway for a country or a region to emerge victorious amid cut-throat competition in the world’s market system.

Assessment of various government-market combination models

It is thus clear that the relationship between government and market has always been the centerpiece of debates among traditional economists. At the core of these debates is the issue of to what extent government interventions may affect economic growth, urban construction, and social welfare provision.

When we return to the six functional structures of a modern market system and face squarely the issue confronting governments across the globe-the efficient allocation of three categories of resources, we will find that the government-market relationship is by no means a one-on-one relationship between two contradictory forces. The categorization of markets into “weak efficient,”” “semi-strong efficient” and “strong, efficient” forms fall within a quantifiable paradigm and reflects a true historical process. The definition of governments into “weakly effective,”” “semi-strongly effective” and “strongly effective” forms are reflective of where each country or region stands in the real market economy of the world and can thus help us tackle an enormous set of conundrums pertinent to the government-market relationship. Theoretically speaking, there exist at least nine models of combination between market and government, as shown in the (Figure 1) below.

![Figure 1: Modes of government-market combination.](image)

Model One: A weak effective government and a weak efficient market.
Model Two: A weak effective government and a semi-strong efficient market.
Model Three: A weak effective government and a strong efficient market.
Model Four: A semi-strong effective government and a weak efficient market.
Model Five: A semi-strong effective government and a semi-strong efficient market.
Model Six: A semi-strong effective government and a strong efficient market.
Model Seven: A strong effective government and a weak efficient market.
Model Eight: A strong effective government and a semi-strong efficient market.
Model Nine: A strong effective government and a strong efficient market.

In Model One, the government basically does not play a role in economic management and regulation, and the market is underdeveloped in the sense that the functioning of its competitive mechanism is often impaired both by the absence of a well-designed legal system and by the disorder. On the average, many low and medium-income economies fit the descriptions of this model.

The combination denoted in Model Two is virtually nowhere to be found in the real economic world, because a market should have a market legal system and a market regulatory system to be defined as being semi-strong efficient, both of which are unlikely to be put in place by a weakly effective government.

The government-market combination in Model Three is merely a theoretical hypothesis, without any telling empirical example to be found in real life to substantiate the rationality behind it.

The combination in Model Four shows that the government is in a position to fulfill its duties and responsibilities with respect to the allocation of “non-operative resources” by providing basic public goods. Meanwhile, the government, though capable of allocating and supporting “operative resources” in some way, is still unable to keep an exact track of the pulse of the market. Thus, a more mature market is needed to resolve problems that keep cropping up during market operation. The real-life parallel for this model is the Chinese economy during the early stage of reform and opening up (from 1978 to 1984), in a period where the market was allowed to play its part in certain sectors, though only in a heavily-restricted and partial way.

Model Five depicts a semi-mature market economy. It indicates two things: on the one hand, the government has beefed up the intensity and mechanism for planning and guiding industrial layout, supporting and regulating production activities and ensuring openness, equity, and fairness in market competition; on the other hand, initiatives are well underway to boost the market’s mechanisms with respect to regulation, legal protection, and environment enhancement. Such a semi-mature economic model is generally seen in a country in the mid-term phase of market
economic development. A real-life example of this model is China prior to accession into the World Trade Organization when the Chinese economy was in its semi-mature form.

The current US economy is a real-life mirror image of the government-market combination depicted in Model Six. By tapping into the market’s predominant forces in resource allocation, the US government has reaped bounty benefits that a highly efficient market can deliver. Although it plays a preeminent role in the allocation of “non-operative resources,” the US government, plagued by institutional or ideological impediments, fails to match its deeds with its words and register breakthroughs when it comes to allocating “operative resources” and delimiting or exploiting “quasi-operative resources.” As a result, there are weak signs of systematic and foresighted leadership by the US government for overall economic growth and urban improvement.

Model Seven describes the combination between a strongly effective government and a weak efficient market, which finds no parallel in real life, because in functional terms, a strong effective government needs a mature market economy in order to play out its role or, to be more exact, should at least be matched with a semi-strong efficient market. It should be noted that a planned economy does not fall into this model of the combination.

Model Eight depicts a market economy quite similar to the current Chinese economy. It is usually deemed as a government-led economy moving incrementally towards maturity, one that has registered world-acclaimed accomplishments, but is still confronted with grave challenges in the form of intensifying market competition and the urgency to foster a better market order, improve market credit systems and upgrade market infrastructure.

Model Nine is the highest and best possible form of government-market combination. It depicts what a truly mature market economy looks like and shows the ultimate point of destination that national and regional economies across the globe should strive to reach through theoretical studies and practical exploration.

**The socialist market economy with Chinese characteristics is a synthesis of effective government and an efficient market**

It can be concluded from the above analysis that a government should meet the following three criteria to be considered effective: first, efficiently allocating “non-operative resources” with well-designed supplementary policies in ways that enhance social harmony and stability and optimize economic environment; second, efficiently allocating “operative resources” with feasible supplementary policies, in ways that guarantee market openness, fairness and justice and boost overall social productivity; third, efficiently allocating “quasi-operative resources” and engage in market competition in ways that promote urban construction and all-round, sustainable socioeconomic development. In short, the competency of a government is reflected in how it performs in allocating resources in the above-mentioned three categories and how successful it is in aligning policy making with resource allocation and objective realization. There are three standards for measuring the competency of a government: 1. An effective government should respect market laws and observe market rules; 2. An effective government should safeguard economic order and stabilize economic development; 3. An effective government should efficiently allocate resources and proactively engage in market competition.

An efficient market is defined as one with fully-fledged basic functions (including a market element system and a market organizational system), a well-established basic order (consisting of a market legal system and a market supervisory system) and a sound and vibrant market climate (encompassing a social credit system and a market infrastructure system). The efficiency of a market is a manifestation of how well the six functional systems performed as well as an indication of how integrated and synergized these three elements are, namely, production competition, market fairness, and orderly business operation. The efficiency of an efficient market can be measured and tested against the following three standards: 1. full market competition; 2. orderly law-based supervision; 3. a fully-fledged social credit system.

In real life, a government should, at the very least, fulfill the following three conditions in order to be considered effective.

First, being able to keep abreast of the times, which in this specific case means getting ahead of the technology curve. New businesses, new industries, new resources and new instruments keep arising from the leaps-and-bounds development of science and technology, sending shock waves across existing government administrative apparatuses. Despite their great abilities in stimulating demand and boosting efficiency in production and living standards, new technologies also generate an onslaught of new problems (most notably the application of Big Data) that beset governments in their exercise of administrative authority and power, making it difficult or even impossible for governments to make decisions on a whim. Hence, governments need to constantly renew and regenerate their ideas, policies, and measures in ways that reflect the trends of the times, if they truly aspire to make a significant difference in economic growth, urban construction, and social welfare or in the allocation of “non-operative resources”, “operative resources” and “quasi-operative resources”.

Second, being able to compete in all dimensions, which requires governments to play a foresighted leading role and to compete thoroughly and systematically in all factors of production by fostering innovation in ideas, institutions, organizational structures, and technology. Competition in this sense spans across social welfare realms (for optimizing the distribution of public
goods and effectively enhancing socio-economic environment), continues throughout the process of economic growth (by way of leading, supporting, regulating and adjusting market entities and for effectively boosting productivity) and involves all aspects of urban construction (by following the rules of the market and engaging in project development). Competition by the government in this regard is based on the production of goods and entrepreneurial activities but is by no means confined to the realm of good production in the traditional sense. Rather, it should cover all processes required to achieve all-dimensional and sustainable development for a nation’s economy, including objective designing, policy making, pathway charting and ultimate outcome delivering.

Fostering openness and transparency in government affairs enables people from all quarters of society to fully exercise their rights to know the truths, to participate, to express their views and to supervise the government. It is also conducive to achieving optimal allocation of resources for robust economic growth, fruitful urban construction and better social welfare. A government that is effective, transparent, ruled by law, innovation-focused, service-oriented, clean and honest is what it takes to release market’s gushing vitality and creativity for the benefits of its people and even humanity as a whole.

It is fair to say that the government-market relationship is the Goldbach conjecture in the realm of economics. China has registered great achievements over the past four decades in economic growth, urban construction and social welfare improvement, a remarkable feat which, it is widely acknowledged both home and abroad, should be attributable to a synthesis between an effective government and an efficient market in the country.

I. In China, the rise of the Pearl River Delta is the epitome of the “China Dream” coming true. As the Russian journalist Pepe Escobar once put it, Shenzhen was merely a poor fishing village to the north of Hong Kong in 1979. In the early 1990s, the Pearl River Delta embarked on a path to becoming China’s biggest labor-intensive manufacturing powerhouse. As it stands now, the Pearl River Delta, with Guangzhou, Shenzhen, Foshan, and Dongguan as its mainstays, is moving up the industrial value chain at accelerating speed. While focusing on building a top-notch national manufacturing innovation center and a national high-tech innovation center, the Pearl River Delta is on track to becoming a cluster of international mega cities. The Pearl River Delta’s obsession with innovation and endeavors towards urbanization are leading China into a whole new model of socioeconomic development. Within a short span of 20 years, China’s Pearl River Delta has completed a feat that previously took the West 200 years to accomplish. Behind this success story of spectacular achievements in economic development, urban construction, and social welfare improvement lies a brand-new economic philosophy, one that focuses on shaping an innovation-driven market economy with an effective government and an efficient market. Never relenting in its unwavering effort to create synergy between government and market, the Pearl River Delta has been scaling new heights in its economic growth, urban construction, and social welfare improvement.

II. The “Beijing Consensus” - an economic model for all-round social progress. The “Beijing Consensus” has brought hope to the world at a time marked by the breakdown of the “Washington Consensus,” the suspension of the WTO talks and the woeful fragility of the Argentine economy, when most of the world’s population are left unsure about what a new development model should look like. China is changing and growing at a dazzling speed. It has achieved three economic transformations over the past four decades since its reform, and the opening-up initiative was incepted in 1978 - with its economy gravitating towards labor-intensive industries in the 1980s, capital-intensive industries in the 1990s, technology-intensive industries at the dawn of the 21st century and now knowledge-intensive industries. Together, these three economic transformations have elevated China to become the largest trading nation, largest manufacturing powerhouse and largest exporter of goods in the world and the largest trading partner of over 170 countries. Such an economic miracle could not have happened, at least not as fast, without the “visible hand” of the Chinese government to guide it. In China’s case, the combination between government and market and between economic development policies and social development policies has proven an effective recipe for resolving the contradictions between efficiency and equity and between development and stability, boosting economic growth, driving urban upgrading and promoting all-round social progress. The universally-acclaimed “Beijing Consensus”, which consists of an effective government and an efficient market, is now leading China on a path to comprehensive and sustainable development.

III. Building a world-class city cluster in the Guangdong-Hong Kong-Macao Greater Bay Area. Speaking of greater bay areas, what first come to mind are the Tokyo Bay Area, the San Francisco Bay Area and the New York Bay Area. What these three bay areas have in common, in addition to having a long coastline, is that they are all clusters of core cities, both economically and culturally, in their respective countries: the Tokyo Bay Area is home to a vast array of headquarters of Global Fortune 500 companies, notably Toyota, Sony and Mitsubishi; the San Francisco Bay Area is where a number of Internet giants cluster - Apple, Google, Facebook, etc.; the New York Bay Area constitutes the heart and soul of global finance with a multitude of financial institutions. The Guangdong-Hong Kong-Macao Greater Bay Area refers to an
area encompassing nine cities that make up the Pearl River Delta - Guangzhou, Shenzhen, Zhuhai, Dongguan, Huizhou, Zhongshan, Foshan, Zhaqing and Jiangmen, plus two special administrative regions, namely, Hong Kong and Macao. The Guangdong-Hong Kong-Macao Greater Bay Area is envisioned and designed to rival and ultimately surpass its counterparts in Tokyo and New York. The greater bay area recorded an economic aggregate of approximately US$ 1.4 trillion in 2016, which enabled it to surpass the Republic of Korea - the world’s 11th largest economy - and rival the New York Bay Area in economic terms; with 71.18 million TEUs, its container turnover was larger than that of the Tokyo, New York and San Francisco bay areas combined; it also outranked the other three major bay areas in airport passenger turnover, which reached 186 million in that year. In 2016, the Guangdong-Hong Kong-Macao Greater Bay Area achieved a total import and export volume of US$ 1.799667 trillion and received US$ 102.91 billion worth of foreign direct investment - which accounted for 5.9% of global FDI inflow. In 2017, The Report on the Work of the Government gave strong prominence to the development of the Guangdong-Hong Kong-Macao Greater Bay Area: it is set to become an internationally-leading bay area and a world-class city cluster.

Effective measures are to be taken to achieve this end. The first is to build a world-class city cluster featuring interconnectivity and interoperability of infrastructural facilities. Efforts will be made to speed up the synergistic development of ports, airports, and mass transit networks while advancing infrastructure construction at entry and exit ports. The second is to accelerate the development of logistics and shipping, with an overarching objective of building a world-class shipping cluster. Measures in this regard include: speeding up construction of free trade ports, vigorously developing multi-modal logistics systems and strengthening the bay area’s shipping service capacity-building. Thirdly, the sharing of resources for high-tech innovation will be promoted by building an international high-tech innovation center. Initiatives will be taken to develop high-tech service outsourcing and conduct cooperation in IPR protection, in addition to strengthening high-tech infrastructural build-up, establishing technology transfer mechanisms, incentivizing innovation and business creation by young people and pushing forward the development of financial technology. The fourth is to promote the integrated development of manufacturing and establishing an exemplary area for “Made in China 2025”. This exemplary area will serve the following purposes: promoting the coordinated development of manufacturing industrial chains, intensifying industrial digitalization, advancing international cooperation in production capacity and incentivizing Chinese equipment-manufacturers to go global. The fifth is to enhance the innovation-driven development of finance to build an international financial hub. Initiatives will be taken to develop shipping finance, drive innovation in financial technology, promote the integration of industry and finance, accelerate the development of financial platforms and facilitate matchmaking between offshore and onshore finance. The sixth is to elevate the level of integration within the greater bay area to build a high-quality residential community that is livable, business-friendly and attractive to tourists.

**Conclusion**

Over the past four decades of China’s reform and opening up, great accomplishments have been achieved in economic growth, urban construction and social wellbeing. All these substantial developments and achievements are possible only when the visible hand of an “effective government” is combined with the invisible hand of an “efficient market”, as is evident in the rise of the Pearl River Delta and the success story about the “Beijing Consensus” and as will be further proven in the initiative to evolve the Guangdong-Hong Kong-Macao Greater Bay Area as a new development model and a new economic growth engine.

**References**

