

上海论坛 2016 特辑（上） | 回顾 2015：亚洲的责任

# 中国观

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# CHINA WATCH

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复旦发展研究院  
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上海市高校智库研究和管理中心  
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内部资料  
仅供参考



# 目录 | CONTENTS

## 回顾 2015：亚洲的责任

### 亚洲安全与区域共同体

- 001 加强亚洲国家合作 促进区域稳定 /Masood Khan
- 002 亚洲当自强——2015 年上海论坛高端圆桌“亚洲能解决自身的安全问题吗？”政策报告书 / 吴心伯、韦宗友
- 008 亚洲问题的亚洲解决方案：并非不可能 /Chintamani Mahapatra

### 亚洲经济与经济新常态

- 010 实现有韧性的增长 / 张军
- 014 亚洲经济如何重返繁荣 / 华民
- 020 加强中非经贸合作，鼓励民营企业“走出去” / 袁志刚
- 023 以创新驱动发展，建设创新型国家 / 陈诗一

### 一带一路与上海定位

- 027 上海论坛政策建议报告——丝绸之路圆桌会议 / 王健
- 030 上海在“一带一路”国家战略中的地位与作用 / 侯杨方

### 信息安全与互联网治理

- 032 防范跨境数据流动风险 保护国家信息安全 / 惠志斌
- 034 提升互联网治理能力是成为网络强国的关键 / 汪玉凯
- 036 正视不同群体利益诉求 构建互联网生态平衡 / 祝华新
- 039 中国发展社会效能现状与社会治理体系构建 / 李良荣

### 城市治理与公共安全

- 043 城市治理与国家竞争力——兼谈上海如何建成现代化国际大都市 / 周伟林
- 047 公共卫生安全与城市可持续性发展 / 赵根明
- 053 金融创新和制度建设应对巨灾风险 / 许闲

### 协同经济与环境发展

- 058 创新生态文明发展模式，促进经济和环境协同发展 / 陈诗一
- 062 全球产业链视角下产业升级与环境治理的协调发展 / 吴力波
- 075 中国碳排放贸易系统建设的政策建议 / 李瑾
- 078 从科技到政策：环境保护的可持续发展之路 / 阚海东

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# 目 录 | CONTENTS

## ***Security and Community of Common Destiny in Asia***

- 081 Strengthening Cooperation between Asian Countries and Maintaining Regional Stability/*Masood Khan*
- 083 Asia Be Self-reliant——2015 Shanghai Roundtable Forum on Topic "Is Asia Able to Solve Its Own Problem?"/*Wu Xinbo, Wei Zongyou*
- 090 Asia's Solution to Asian Problems: There Are Possibilities/*Chintamani Mahapatra*

## ***Economy and New Normal in Asia***

- 093 Achieve Resilient Economic Growth/*Zhang Jun*
- 098 How Can Asian Economy Return to Prosperity/*Hua Min*
- 107 Strengthen China-Africa Economic and Trade Cooperation and Encourage Going-out of Private Enterprises/*Yuan Zhigang*
- 112 National Development Leads by Innovation/*Chen Shiyi*

## ***Shanghai's Role in the Belt and Road Initiative***

- 119 Shanghai Forum "Silk Road Roundtable" Policy Advice/*Wang Jian*
- 123 Shanghai's role in 'One Belt One Road' Strategy/*Hou Yangfang*

## ***Information Security and Cyberspace Governance***

- 126 Preventing the Risks of Cross-border Data Flows and Protecting National Information Securities/*Hui Zhibin*
- 129 Internet Governance in China/*Wang Yukai*
- 132 Addressing the Interest Appeal of Different Groups for Ecological Balance of Internet/*Zhu Huaxin*
- 126 China Development of Social Efficiency and Construction of Social Governance System/*Li Liangrong*

## ***Urban Governance and Public Safety***

- 142 Urban Governance and National Competitiveness/*Zhou Weilin*
- 147 Public Health Security and Urban Sustainable Development/*Zhao Genming*
- 155 Financial Innovation and System Construction as Catastrophe Risk Responses /*Xu Xian*

## ***Joint Development of Economy and Environment***

- 163 Innovate a Development Pattern for Ecological Civilization to Promote Coordinated Growth of the Economy and Environment/*Chen Shiyi*
- 169 Coordinated Development between Industry Upgrade and Environmental Governance under the Perspective of Global Value Chain/*Wu Libo*
- 189 Advices on China's Carbon Emission Trading Scheme/*Li Jin*
- 193 From Science and Technology to Policy: the Sustainable Development Road of Environmental Protection/*Kan Haidong*

【上海论坛高端圆桌】

## 加强亚洲国家合作 促进区域稳定

巴基斯坦前驻华大使 Masood Khan

在讨论亚洲面临的急需解决的安全问题时，必须首先评估亚洲国家解决安全挑战方面的能力，并在此基础上提高解决能力。目前，亚洲有两种趋势，一方面是趋同，一方面则呈现出多元化。在过去的几十年间，无论是投资方面还是工业发展方面都存在这两种趋势。

对于亚洲国家来说，解决问题的当务之急是重建本地区的互信。目前，美国通过遏制中国和支持美在亚洲的盟国，有加强介入亚洲事务的趋势。亚洲国家之间存在竞争，部分国家可以起到相对主导的作用，不同国家的军队力量也在发生变化，在一些主要国家之间还存在冲突。在东北亚，中日之间在钓鱼岛问题上有争议。其实，两国之间的冲突不仅仅是钓鱼岛，还涉及历史问题和资源影响力。另外，朝鲜半岛问题也非常严峻。东南亚也出现了众多岛屿的主权冲突，亚洲国家正面临着不信任问题。2013年，中国和东南亚国家之间主要是通过双边机制来解决问题。同时，多边机制和国际仲裁也是解决问题的途径。

随着中国和东北亚国家的快速发展，亚洲安全系统也在不断发展。在亚洲区域还有其他领域的开发，比如基础设施投资建设方面就有中国提出的“一带一路”，目前已经有五十多个国家响应；日本也准备投资数十亿美元加强基础设施建设。“一带一路”同时也是中国对整个国际局势做出的安全性的回应，可以改变目前的格局。

中国要借助经济的纽带达成和更多国家之间的合作。比如中巴经济走廊已经使中巴两国得到了很多益处。中国与印度也进行了很多的对话。莫迪在最近对中国的访问中就双方的安全政策进行了磋商，这些都会促进很多问题的后续解决，并催生新的解决方案。对于亚洲国家来说，为了进一步加强合作，必须首先促进相互之间理解。

虽然面临很多军事和政治上的压力，但是随着亚洲的经济实力不断增强，亚洲应对安全隐患的实力也在不断增强，这将使亚洲能够将命运把握在自己手里。巴基斯坦和中国有着密切的合作关系，巴基斯坦认为两国的合作是非常有益的发展。中国将会作为亚洲稳定的基础，进一步加强各国的经济纽带，建立更好的关系。

东亚和中东等地区的冲突会对中国产生怎样的直接影响？美国的介入又会如何影响亚洲？未来亚洲的命运是掌握在亚洲各国手中的，我们需要和其他国家合作，以此对亚洲地区的稳定做出贡献。亚洲存在的贫穷、教育程度低、法律体系不完善、区域不稳定等问题，并不是一个国家可以解决的，而是需要国际社会的关注。

最后，对于亚洲安全机制的建设必须更具代表性，关注的方面要更广。不仅仅要关注亚洲，还要关注其他地区的发展。

# 亚洲当自强

## ——2015年上海论坛高端圆桌“亚洲能解决自身的安全问题吗？”

### 政策报告书

复旦大学国际问题研究院 吴心伯

上海外国语大学国际关系与外交事务研究院 韦宗友

2015年5月23日下午，2015年上海论坛高端圆桌“亚洲能解决自身的安全问题吗？”在上海浦东国际会议中心成功召开，来自印度、巴基斯坦、韩国、俄罗斯、美国及中国的近20位嘉宾齐聚一堂，围绕“当前亚洲面临的主要安全问题”、“亚洲国家解决自身安全问题的能力和意愿”、“美国等区域外大国在亚洲安全治理中的作用”、“亚洲安全治理机制”等问题展开了热烈讨论和对话。复旦大学发展研究院副院长、复旦大学国际问题研究院常务副院长、美国研究中心主任吴心伯教授作为本次高端圆桌会议主席，与中国前驻法大使、外交部外交政策咨询委员会会员吴建民共同主持了圆桌会。

#### 一、当前亚洲面临的主要安全问题

与会嘉宾一致认为，当前亚洲在全球格局中的地位 and 作用日益上升，亚洲国家在经济上关系密切，经贸交往十分频繁，相互依存度高。但同时，尽管总体而言，亚洲还是比较安全的，但也面临一系列非常重要和复杂的安全挑战，既有传统安全挑战，也有非传统安全挑战。

在非传统安全方面，与会嘉宾认识到，贫困、发展不平衡、恐怖主义和宗教极端主义、自然灾害、海盗、环境与卫生问题、气候变化、流行病、贩卖人口、毒品交易等都是亚洲国家面临的主要安全挑战，这些非传统安全挑战与经济发展水平和社会不公也存在紧密关联。与会嘉宾一致认为，这些非传统安全外溢性强，是地区乃至“全球公害”，不能仅仅依靠单个国家和组织来应对，必须各国、乃至全球携起手来，共同应对。

大多数与会嘉宾认为，当前亚洲面临更迫切的安全问题是传统安全问题，包括大国之间的安全竞争和不信任、领土和海洋纠纷、朝鲜半岛以及阿富汗重建等问题。印度尼赫鲁大学国际问题研究院教授秦塔莫尼·玛哈帕达 (Chintamani Mahapatra) 教授指出，亚洲国家的传统安全问题，既有领土和领海纠纷，也有历史因素，同时还夹杂着大国之间的竞争。比如中印之间、中日之间，都是现实与历史、领土纠纷与大国竞争相互交织，增加了问题的复杂性。中国作为亚洲的大块头，这一事实本身就可能会让其他亚洲国家产生恐惧。在东海和南海，近年来海洋和岛屿争端也呈现上升势头。特别是海洋争端，可能是亚洲面临的最严重问题。

巴基斯坦伊斯兰堡战略研究学院院长、前驻华大使马苏德可汗 (Masood

Khan)指出,亚洲是个多样性的的大陆,亚洲国家在规模、发展水平、军事能力等方面都有很大不同。亚洲国家面临很多传统安全问题,如中日之间的钓鱼岛争端、历史遗留问题,朝鲜半岛问题,南海争端、阿富汗恢复秩序与重建等,都是非常棘手的安全问题,而且近年来其中一些问题,如中日之间及中国与东盟部分国家之间的海洋和岛屿争端等有恶化趋势。

美国莫琳与麦克·曼斯菲尔德基金会总裁(The Maureen and Mike Mansfield Foundation)弗兰克·季努兹(Frank Jannuzi)指出,在东亚国家之间,尽管利益上紧密相连,但彼此之间存在历史遗留问题、海洋争端,对中国未来发展不确定性的担忧,以及某种程度的领导权竞争,这些都有可能加剧亚洲国家间的安全困境。

韩国核政策协会主席韩庸燮(Han Yong-Sup)也认为,亚洲存在一种经济与安全彼此割裂的悖论,经济关系十分紧密,但在安全上,彼此十分冷淡、猜忌严重。从战略角度来看,当前亚洲的安全局势有点类似于一战时期。中美之间的战略竞争、日本的军事化、中国军力增长、朝核问题、海洋争端等等,都让亚洲国家感到担忧。

俄罗斯外交和国防政策委员会(Council on Foreign and Defense Policy)主席奥多尔·卢基亚诺夫(Fyodor A. Lukyanov)认为,经济全球化给国际关系带来很多改变,但是不稳定源依然继续存在。亚洲最近发生的很多事情,包括中东乱局、乌克兰危机等都会对亚洲安全产生影响。中东乱局中短期内不会恢复平静,未来形势不容乐观。乌克兰问题也让俄罗斯与西方关系陷入僵局。与冷战时期不同,现在亚洲是全球关注的中心,也是权力博弈的中心,任何小的冲突都有可能酿成大的悲剧,所以亚洲国家在处理安全问题上需要特别小心谨慎。

## 二、亚洲国家解决自身安全问题的能力和意愿

与会嘉宾认为,亚洲国家应该首先承担起应对亚洲安全的首要责任。不过,对于不同类型的安全问题,与会嘉宾观点并不一致。总体而言,大家都认为,在诸如自然灾害、传染病、恐怖主义、气候变化等非传统安全问题上,区域外和区域内国家应该携起手来共同应对。但对于传统安全问题,部分与会嘉宾认为,亚洲国家无力在能力还是意愿上,都还没有准备好,无法解决自身的安全问题,需要域外大国的参与和帮助。另外一些嘉宾认为,亚洲国家安全治理能力正在迅速增强,可以动用更多的资源来解决安全问题。亚洲国家应该首先承担起治理责任,不能一味指望域外大国。

季努兹认为,东亚很多安全问题,亚洲国家解决不了。这既有能力问题,也有彼此间的信任问题。亚洲国家还没有准备好。特别是大国冲突问题,亚洲国家无法很好自己解决。例如中日之间无法进行有效的合作来共同解决亚洲存在的安全问题。还有朝核问题,如果让日本和韩国自己来解决,那么他们可能最终都要发展核武器,这对亚洲安全来说并非福音。还有很多非传统安全,如海盗、非法移民、自然灾害、传染病等,需要国际社会

共同努力来应对。我们希望亚洲国家之间能够克服因尊严、恐惧或利益而导致的分歧和冲突。

卢基亚诺夫认为，亚洲国家必须依靠自己的力量来解决安全问题，因为从历史来看，不存在一个国家为了他国的利益来解决其他人的安全问题。但问题是，亚洲国家是否准备好了自己来解决问题？他认为，亚洲国家依然没有做好准备。

上海社会科学院国际关系研究所常务副所长刘鸣教授认为，亚洲在安全治理上的主要障碍在于彼此间的不信任。亚洲主要国家往往都从自己本国狭隘的立场来界定其利益，很少会考虑到他国或邻国的立场和观点，这些现实主义思维不仅不利于分歧和矛盾的解决，反而加剧了亚洲国家之间的安全困境。

韩庸燮认为，相对于以前，现在亚洲国家在应对安全挑战方面更为积极主动，提出了很多好的倡议，彼此间的合作也在不断增强。但他强调，亚洲国家解决传统安全问题的能力依然有限，亚洲大国之间缺乏互信，而中小国家能力不足，东盟等地区性国际组织的作用也十分有限，需要美国等区域外大国的参与和帮助。

可汗指出，随着亚洲国家经济实力的增强，亚洲国家解决自身安全问题的能力也在水涨船高，特别是中国提出的一带一路等经济倡议和主张，对促进地区经济发展、促进地区安全治理起到积极作用。他指出，亚洲未来的命运应该掌握在亚洲国家手中，而不能一味依靠外国，亚洲国家之间需要更好的合作，更好地促进地区稳定。

上海国际问题研究院南亚研究中心主任赵干城研究员认为，亚洲国家是能够解决自身面临的安全问题的。美国从中东和阿富汗撤出，目光聚焦于东亚海洋区域，这对于亚洲国家解决大陆上的问题提供了机遇。关键是要建立一种合适的机制，如果亚洲国家能够做到这一点，那么亚洲国家依靠自身力量解决安全问题、特别是传统安全问题是可期待的。在这方面，阿富汗的秩序恢复和重建将是一个考验，也是对亚洲国家解决自身安全问题能力的检验。

复旦大学国际问题研究院常务副院长、美国研究中心主任吴心伯教授指出，亚洲国家解决自身安全问题的能力和意识无疑在一步步提升，也在采取切切实实的行动。亚洲问题的解决，归根结底是亚洲国家必须行动起来，找到合适的机制和组织架构，发挥亚洲国家的作用，应对这些安全隐患和挑战。

中国前驻法大使吴建民指出，很明显，亚洲的安全问题，应该主要由亚洲国家来解决。新中国自成立以来，一直秉持这一理念，即一国内部的问题主要靠该国自己解决，世界性的问题则由世界各国共同协商解决。对于亚洲的问题，首先应该由亚洲国家协商解决，而不能老是指望别人和他人来解决。吴大使也指出，当然，我们并不关闭对外合作的大门，相反需要国际合作。



### 三、美国等区域外大国在亚洲安全治理中的作用

对于区域外大国、特别是美国在亚洲安全治理中的作用，与会嘉宾的基本观点是，亚洲国家并非要排斥美国的作用，特别是建设性作用，担心的是美国动辄使用或炫耀武力的做法可能非但无助于问题的解决，相反会加剧矛盾和冲突。

季努兹指出，亚洲国家在二战后有长时间的和平与繁荣，美国的作用功不可没。美国在解决世界安全问题上，扮演着非常重要的作用。尽管美国不是亚洲国家，但美国是太平洋国家，东亚很多安全问题，可以在美国帮助下得以解决。韩庸燮指出，鉴于亚洲国家的能力和合作意愿都相对有限，亚洲安全问题需要美国的参与。美国在安全合作方面经验丰富，可以在亚洲发挥建设性作用。他还指出，美国一直是东亚的盟国，是亚洲的主要行为体，不能被认为是区域外大国。可汗也指出，亚洲国家要努力解决自身的安全问题，但是也应该欢迎美国在亚洲安全方面发挥积极作用。上海外国语大学中东研究所副所长孙德刚研究员指出，亚洲国家之间存在很多安全困境问题，导致彼此缺乏互信，相互猜忌严重。如果这种情况不解决，那么很多时候亚洲国家就无法携手共同解决亚洲的安全问题，不得不依靠区域外大国美国的帮助。

卢基亚诺夫认为，俄罗斯国土的大部分在亚洲而非欧洲，尽管其主要城市集中在欧洲，所以俄罗斯也是一个亚洲国家。他指出，在 21 世纪，俄罗斯在亚洲应该更加积极主动，起到更大的作用。俄罗斯不希望照搬西方国家的一些做法，在安全问题上，亚洲处理问题的方式可能比传统的西方做法更为有效。我们与西方的关系在乌克兰危机前已经陷入困境，俄罗斯民众以前对中国有担忧，但现在这种感觉变了，不再担心中国，而是担心西方国家。

玛哈帕达指出，美国在亚洲有其自己的目的，并不是要单纯地帮助亚洲解决其安全问题。亚洲的很多传统安全问题，如朝鲜半岛问题、台海问题、印巴问题以及南海问题，美国一直都在插手或参与，但即便如此，这些问题也一直没有得到解决。美国是否真的要解决这些问题也很难说。

中共中央对外联络部当代世界研究中心赵明昊博士指出，亚洲国家应该对本地区的安全负责，但是也希望美国等区域外大国在本地区扮演建设性角色。中国希望与美国发展建设性关系，但是美国的亚太再平衡战略对东亚的和平与稳定并非起到积极作用。

吴心伯认为，亚洲存在的很多安全问题，例如阿富汗重建、朝鲜半岛核问题等等，依靠武力或炫耀武力是无法解决的，传统的军事同盟作用也十分有限。需要建立一种开放性多边地区架构，需要更多国家的参与来共同解决。当然，亚洲国家要承担起解决问题的首要责任。

吴建民大使指出，美国人有时过于敏感，认为中国要赶走美国。中国领导人从来没有要赶走美国的意愿。

#### 四、亚洲安全治理机制

对于亚洲应该建立何种安全机制来处理亚洲的安全问题，与会嘉宾大致存在两种不同观点。一种观点认为，美国在东亚建立的双边联盟体系对亚洲的和平与经济发展功不可没，在新时期应该继续存在下去，但可以拓展其功能，加强应对非传统安全能力，并逐步向功能性多边网络发展。另一种观点认为，美国的双边联盟体系是冷战产物，已经不适应当前亚洲新形势，应该更弦易辙，以其他更具包容性、开放性的多边机制逐渐取而代之。赵干城提出，处理亚洲大陆的安全问题，我们需要更新思维，需要一种多边安全机制而非冷战时期的双边军事同盟体系。亚洲国家可以在一些现有的安全安排基础上建立新机制来应对安全问题，特别是处理阿富汗问题。目前，亚洲的安全机制大致可以分为海洋机制和大陆机制，前者主要是美国的双边军事同盟机制，后者主要包括亚信峰会、上海合作组织等地区性安排。可以在亚信峰会机制基础上建立涵盖亚洲大陆所有国家的亚洲安全理事会，主要处理亚洲大陆的安全问题。中印俄作为亚洲三个大国，应该是亚洲安理会的主要国家。亚洲安理会应该持开放态度，未来日本也应该参与进来。美国是否应该加入，这要等亚洲安理会运作成熟之后再进行讨论。

对于赵干城的提议，可汗说，亚洲安理会应该更具包容性，亚洲国家的内部倡议不能排除美国，不能指望将美国排除出去。而且亚洲国家建立的多边安全机制要强调国家间的平等，大国不能有特权。玛哈伯德认为，应该建立中美印或中印之间的安全对话机制，减少中印之间的猜忌和疑虑。亚洲大国之间也应该建立多边对话机制，来消减彼此怀疑，不过这一多边安全机制要更具有包容性，不能搞成排他性的小圈子。

韩庸燮指出，从过去历史来看，东亚的军事同盟对亚洲安全与繁荣起到了积极作用，我们不能否定过去。但随着亚洲环境的变化，传统的双边军事同盟需要进行调适，要更具包容性，甚至可以向多边化发展。

季努兹指出，美国的同盟体系，其价值是用硬实力来解决真正的问题。如东南亚海啸，日本地震等，美国在东亚的同盟体系都发挥了积极作用。在亚洲，除了美国的同盟体系外，没有亚洲国家有能力解决安全问题。当然，美国在亚洲的同盟体系还是冷战时期的旧架构，需要更新，使之变得更加开放。特别是在应对海盗、传染病疫情、自然灾害等非传统安全方面，美国可以对传统军事同盟进行转型，由双边转向多边。

刘鸣认为，美国在亚洲还是倚重双边军事同盟。尽管在朝核问题上，美国支持六方会谈机制，但对待多边主义的态度是功能性的和机会主义的。美国对中国十分防范，甚至认为中国是威胁。如果中国提出建立某种亚洲多边安全机制，美国是不大高兴的，认为是在与美国争夺领导权，中美两国很难坐下来讨论建立亚洲的多边安全机制。

卢基亚诺夫认为，在当代世界，军事、地缘政治竞争已经不同于冷战时期，联盟概念是否已经过时了？联盟无法解决亚洲的安全问题，应该抛

弃联盟思维，亚洲国家应该有自己解决安全问题的方式，上海合作组织未来或许可以演化成欧亚的经济和安全组织，以多边机制集体应对亚洲安全问题。

## 五、政策建议

综合嘉宾发言，本圆桌提出如下政策建议。

第一，加强亚洲国家的能力建设。能力建设对于解决亚洲安全问题和维护亚洲的和平与稳定至关重要。这种能力既包括提升相关国家的国内治理能力和经济发展水平，也包括域内大国应对安全挑战的政治、经济和军事能力。只有当亚洲国家具备了解决自身安全挑战和问题的能力，才能成为本地区的安全提供者而非消费者。

第二，加强亚洲国家间的沟通与协调。由于种种原因，很多亚洲国家之间缺乏政治和战略互信，这无疑限制了亚洲国家携起手来共同解决亚洲面临的安全挑战的能力和可能性。因此，加强亚洲国家间的沟通和协商，密切彼此在政治、经济、人文和安全领域的交往和交流，是提升亚洲国家共同应对自身安全挑战的题中应有之义。

第三，建立危机管控机制。亚洲国家间存在诸多悬而未决的领土和海洋纠纷，这些矛盾和纠纷近年来还有升级的趋势，显然不利于亚洲的和平、稳定与繁荣，更是亚洲国家携手共同应对自身安全问题的障碍。亚洲国家应就相关领土和海洋纠纷建立功能性双边或多边危机管控机制，防止矛盾激化和冲突升级，避免发生擦枪走火事件，为亚洲的发展和繁荣提供稳定的安全环境。

第四，建立多边安全机制。亚洲缺乏有效的多边安全机制来处理亚洲面临的诸多传统和非传统安全挑战。鉴于亚洲安全挑战多元，亚洲国家能力有限及彼此间存在的猜忌，亚洲多边安全机制建设不能一蹴而就，更不能好大喜功，而要循序渐进，讲究实效。可以分陆上和海上分头进行。海上主要探索建立多边海上安全机制，先从非传统安全合作做起。陆上可以以既有的地区多边安全机制为基础，夯实其行动能力和效率，使之逐渐成为应对地区安全的主要机制。

第五，加强与美国等域外大国的沟通与合作。美国不是亚洲国家，但鉴于美国在东亚的军事同盟体系及在亚洲的政治、经济和军事影响，亚洲安全问题的解决无法绕开美国。在亚洲国家具备解决自身安全挑战的能力和意愿之前，在亚洲国家建立起有效的安全机制之前，美国在亚洲安全中的作用不容小视，尽管可能不全是正面的。在美国对中国战略疑虑加深的当下，对于任何可能导致美国认为中国在试图将美国排挤出亚洲的行动，都需要三四而后行。

【上海论坛高端圆桌】

# 亚洲问题的亚洲解决方案：并非不可能

印度尼赫鲁大学国际研究院加拿大、美国与拉美研究中心 Chintamani Mahapatra

## 一、亚洲问题自行解决的关键点

亚洲如何解决自身的安全问题，对亚洲各国而言，是一个至关重要的话题，在该话题的探讨上，我们必须从亚洲的视角去解决亚洲面临的问题，而亚洲问题自行解决的关键在于：

（一）亚洲有没有能力解决自己的安全问题，是否可以自行解决领土争端和边界问题，以及安全隐患之外的许多其他问题。

（二）对于亚洲国家来说，我们如何更好地应对这些安全挑战？

（三）对于目前这些问题来说，我们能否找到可行的方案？

（四）解决这些挑战意味着什么？

而所有这些问题的核心在于，如果我们不接受亚洲之外国家的帮助，还能否自行地渡过这些难关。冷战之后，美国在不断地影响着亚洲的发展，没有美国的干预，亚洲是否可以自行解决这些安全问题？

## 二、亚洲问题自行解决的现实背景

（一）**美国干预亚洲问题的不单纯动机：**美国来到亚洲并不是这么单纯的想帮助亚洲解决安全问题。中国、朝鲜、韩国、巴基斯坦以及中国台湾的问题，都存在着不同的争端，存在着不同类型的冲突，包括中国的南海也是如此。在这些问题上，美国一直参与其中，然而美国的持续干预并没有解决这些问题，甚至很难说美国究竟是不是想解决这些问题。对于亚洲的这些问题，我们不能绝对地说，亚洲国家要百分之百地自行解决，但是我们更不能完全地依赖美国这样的国家的外部援助。

（二）**亚洲总体平稳的安全环境：**就亚洲来说，有关岛屿的争端可能是目前面临的最严重的问题。前面我们提到了亚洲很多问题，然而不管是岛屿的争端，还是其他的争端，都并不会造成国家之间的战争，对亚洲国家来说，整体局势还是比较平稳的。亚洲最大的问题仍是贫困，另外就是教育水平不够高，这些对于亚洲国家来说都是非常严峻的挑战。

（三）**亚洲问题的复杂性：**亚洲各国不论面积的大小，都有着一些共同的历史遗留问题。这些历史遗留的问题，对亚洲各国的发展有着非常重大的影响，但所有问题的影响因素都非常复杂，综合起来，我们很难找到一个可以作为万能钥匙的解决方案。亚洲所面临问题的主要因素具体如下：

1、**贫穷问题：**亚洲是世界上最大的大陆，也是最重要的大陆，三分之一的亚洲人口都是比较贫困的。中国的总理也提到过，有2亿中国人口依旧在贫困线以下生存。我来自印度，印度贫困人口总数超过了北美和拉美全部人口之和，另一个不能忽视的现象就是贫困人口不断增加，而

且其中 70% 的人口接受教育的水平都非常之低。

**2、文化问题：**我们要看到亚洲国家之间的文化多样性，不管是使用的语言，还是种族、文化都是如此。亚洲很多国家都有大量的少数民族，包括印度和中国。这些少数民族有的时候可能会成为亚洲主要问题的来源，有的时候他们也会跨越国境线，造成全亚的问题。

**3、不平等问题：**主要包括地域和经济上的不平等。中国的国土面积（960 万平方公里）非常大，印度的国土面积也不小，但是比起中国却相对小很多。亚洲还有许多其他国家，在国家规模、人口总数以及自身文化方面都存在着很大的差别。亚洲各国之间存在着各种不平等，这些不平等很大程度上构成了亚洲不安全的根源。比如中国是一个最大的国家，也是最大的经济强国，这就会引起邻国的恐慌，从而构成其他的安全隐患。一些小的国家希望从外部获得一些资源来解决这种恐慌。在过去的几年当中，我们也发现了这种不平等所带来的问题。例如在中国南海及其他不同海域的争端，这些层出不穷的有关水域的争端都来自于相对弱势的国家的担忧，当然也来自于历史遗留的问题。印度和中国之间也存在着历史遗留的问题，伊朗等国也有这种问题，这些都构成了极大的安全隐患。

**4、其他问题：**例如污染的问题，也是无国界的，需要亚洲各国通过更好的合作来解决。另外传统的一些观点认为，在亚洲，中国迅速的发展以及很多东南亚国家的经济快速增长都会造成争端的加剧。同时，尽管整体的经济增长加快，但贫困依然是一个重大的问题。亚洲还有很多内部问题，我们都必须要加以重视。

### 三、亚洲问题的现状

**（一）每一种新的问题，都必须有一个新的解决方案，而一个新的解决方案，可能会引发一个全新的问题。**例如经济增加当然是好的现象，中国富裕人口很多，中产阶级也很庞大，但同时贫富差距也很严重，在印度该情况则更甚。又例如科技的发展非常关键，但是新技术的发展也会造成新的负担，比如会带来更多的失业。这些问题都是实际存在且有待解决的，各国均希望能够找到更好的方法去解决所面临的问题，那么需要考虑的是，在一国内部是否可以独立解决这些问题。

**（二）合作与自主解决问题的必要性：亚洲所面临的安全问题是多种多样的，如贫困问题和多边问题等。**需要强调的是，这些问题我们需要和亚洲之外的国家进行合作，仅仅依靠亚洲各国无法找到很好的答案。而其他一些问题我们可以通过亚洲各国之间更好的沟通来解决。以上两种途径都可以帮助我们更好地解决亚洲的安全隐患。

在我看来，包括中国和美国在内的很多国家参与领土争端问题的局面，其实也是大国在亚洲实力的体现。同时中印两国之间较为复杂的关系，以及中日之间的紧张关系，都会影响周边国家的关系，且这种影响是非常深远的。总而言之，亚洲有许多问题需要解决，而其中一些问题需要通过亚洲内部协商解决。

# 实现有韧性的增长

复旦大学经济学院 张军

在中国经济的增长还能持续多久的问题上，悲观者居多。持这种看法的学者把注意力集中在了中国经济出现问题一面，特别是过去五六年来出现的增长降速现象，伴随经济降速，还有债务、产能过剩、房地产投资过多及某些地方出现“鬼城”等问题。这些问题都存在，但不可否认，这些问题也都不是第一次存在。回顾中国过去 30 年的经济发展，特别是过去 20 年，也多次出现了类似的问题，只是有些问题出现方式有所不同而已。不仅中国如此，如果回顾一下东亚发展经历，特别是在其早期 30 年的经济转型与发展中，这些问题也屡见不鲜，比如在台湾和韩国，甚至在日本超常增长阶段，这些也是非常典型的生长现象。

观察中国和东亚经济的发展现象时，比较有意思的问题应该是，为什么这些经济可以持续发展这么久的时间？中国在改革开放后走过了 35 年，实现了 9.7% 的年均增长率。韩国和中国台湾，从低收入阶段成功地跨入高收入的阶段，也走了 40 年。为什么其他的经济体，即使从最低的收入阶段起，多数也许只经历了 10 年甚至更短的经济增长，然后基本就停滞不前了。为什么我们能保持 30 年的经济高速增长期？为什么亚洲四小龙，特别是中国台湾和韩国，能完成从低收入阶段向高收入阶段的跨越？如果这样来观察和思考问题的话，我们可以猜测，这些成功经济体里面一定存在一些能越过这些问题而持续增长和发展的动力。

经济发展，特别是从低收入阶段向高收入阶段的经济发展，其实是充满挑战和风险的曲折过程，这个过程中会经历反反复复的经济起降，会经历外部冲击和震荡，所以一个经济体要成功地实现从低收入向高收入阶段的发展，一定是要能成功地应对和处理这些挑战，化解这些风险，也要去不断解决经济发展过程中遇到的种种结构性问题。能做到这一切的经济体数量不多，东亚经济和中国过去 30 年的发展经历都应算是成功的案例。就这一点而言，我们也许应该把中国和东亚经济体视为有“韧性”的经济——而且我认为，“韧性”这个概念很可能是帮助我们理解中国在过去 30 年以及东亚在经济发展的头 40 年里成功发展的最重要原因。

在讨论有些经济体为什么会有韧性之前，首先我要简单描述一下，一个有韧性的经济是如何实现经济发展的——这其实就是东亚经济和中国过去 30 年的经济发展经验。还回到前面我提到的那些经济超常增长的问题吧，由于经济快速增长、过度投资、产能过剩和债务的问题总是反复出现。当大多数经济的增长受制于这些问题而不能增长的时候，东亚和中国的增长策略往往会做出很大的调整并且会推进制度改革，目的未必是直接去化解这些问题，而是希望通过这些策略的调整和制度的改革来诱导出更新的和

更有效率的经济活动，一旦这些经济活动得到鼓励，新的增长现象就会发生，从而使得原来的债务可以变成资产，原来的产能过剩部分地得到了利用。

假如东亚经济体没能够鼓励出更新和更有效率的经济活动，产出增长还主要依赖那些背负债务和产能过剩行业的话，我想这些经济体是不可能持续发展这么长时间的。从这个意义上讲，当我们看到这些经济体相对其他的经济体，比如拉美和南亚，能持续这么长时间的经济发展过程，一定是因为它们总能灵活地实现政策和体制的调整，总能鼓励和支持更新的和更有效率的经济活动出现，这就是经济的韧性。当然，不是所有的经济体都能实现有韧性的增长。但东亚经济体做到了，中国经济在过去30年总体上也是做到了的。回顾一下我们过去30多年的经济发展，在每次遇到波折的时候，在每次走到十字路口的时候，尽管也要对债务进行重组，对国有企业进行结构性的改革，对产能过剩作一些压缩，但政策改变的重点如果不是放在大力鼓励和创造更新、更有效率的经济活动的成长，去取代或者冲销那些没有效率的或浪费的经济活动的话，这个经济是不可能持续发展到今天的。

中国经济改革的经验之一就是所谓的“增量改革”。而增量式改革的结果必然是更多的和更有效率的经济活动不是从现存的部门里产生，而是在这些部门之外通过改革体制和调整政策被鼓励和创造出来的。比如，中国的农业改革以及整个20世纪80年代乡镇企业的崛起，都是增量改革的结果。这些改革为我们在80年代实现接近10%的年均增长率立下了汗马功劳。进入90年代以后，外部条件发生了改变，中国经济又面临很大的挑战。除了国有企业的持续亏损，还遇到了90年代初的房地产泡沫，形成了大量的烂尾楼和银行的不良资产等。我们在处理这些问题上并没有什么高明的手段，只是因为我们在政策和体制上做出了艰难的改变，去鼓励和创造了更新和更有效率的经济活动，冲销和补偿掉了原来那些缺乏效率的一部分经济。

总之，一个有韧性的经济就是政策和体制总能在关键的时候做出适应性的改变，去激励一轮一轮更新和更有效率的经济活动，在价值上来冲销上一轮增长扩张可能留下的负面因素。中国迄今为止经济发展的成功很大程度上就是因为我们总能在恰当的时候成功地推进制度改革。2008年前后，由于经济超常增长，出现了很多过度投资的领域，说它们是浪费，说一些产能是过剩的，这都没错，这些是上一轮增长扩张的结果。它们的确会变成经济发展的累赘，政府也要对它进行处理。但如果指望处理好这些累赘之后才能实现未来新一轮的经济增长的话，基本上没有太大希望。所以，既然是产能过剩，既然是浪费，我想我们最好要把它丢在历史中。丢弃这些历史的包袱可以使我们专注于价值更高、更有效率的经济活动。一旦新的价值被发现，新一轮创新开始起步，原有的代价就变得不值一提。由此，经济的发展就可以延续下去。

我认为，要使中国经济发展的奇迹得以延续，保留住这个经济的韧性才是至关重要的。有了这个韧性，新兴的经济活动在每一次中国经济遇到挑战的时候都可以通过政策和体制的适应性改革来激发出来。一个有韧性的经济发展就是熊彼特意义上的一个用创造去毁坏的动态过程。

那么，一个经济如何才能做到有这样的韧性？我的看法是，这需要政府和市场形成良性的互动。如果把政府和市场看成是一个可以良性互动的关系，我们就可以找到东亚经济在发展的前40年和中国经济过去30年里值得总结的发展方面的宝贵经验。过去30多年，中国总体上保持了政府和市场之间相对良性的互动关系，这种关系维持了中国这个经济体到目前为止的韧性。这种互动性的关系可以体现在很多方面。比如说，中国的财政体制在改革开放之后中央力求向地方分权，高度的财政分权形成高度的地方化和地区之间的竞争，市场化的趋势得以形成。我觉得这是互动关系非常重要的体现。

这种互动还体现在了产业政策方面。中国的产业政策在国家层面上体现得很弱，产业政策基本是在地方政府层面上体现出来的。这是中国有竞争力的产业的发展往往是以产业集聚的方式在地方形成与扩张的原因。中国的产业发展不是以中央部委主导的产业集聚的方式而推进，这一点使市场的导向和力量得以在产业发展中保留了下来。

还要提及的一个互动的方面是，地方政府始终保留了公共性的资本支出责任，没有这样的责任，中国的基础设施不可能有这么大的改进。基础设施的改进实际上为私人的投资行为创造了非常好的条件，稳定了私人投资的回报。当然，也不可忘记，地方政府始终希望帮助地方企业去连接全球生产链也是政府与市场良性互动的重要表现，像浙江、广东就做得非常出色，它们把地方企业成功地连接到了全球生产链中去了，这也是今天中国经济最有活力的部分。

除此之外，地方政府都比较支持局部制度的创新，从当年的乡镇企业、财政包干，到上世纪90年代的私营企业的崛起，包括国有企业的民营化，再到现在的土地制度、户籍制度的改革，都是靠地方的局部改革试验来形成主流和共识的。这样就可以不断克服经济面临的新约束。中国经济走到一定阶段，就要面临新的约束。没有任何一次的改革可以解决所有的问题，需要不断地克服各种各样的约束。这需要政府与市场的良性互动而不是对立割裂才有可能。

2008年以来，中国经济遭遇的全球危机的影响以及前几年因刺激政策引发投资过度产生的债务和产能危机，再次让中国经济走到了十字路口。在过去两年，中国经济的增长率出现了显著的下降趋势。面对这个局面，推进政策的变革和体制的改革，鼓励更多更新的更有效率的经济活动和经济部门的发展，很快就成为了共识，这该是我们的经济依然保持着韧性的证明。只要我们能够像过去那样保持政府和市场间的互动，能够继续保持经济发展的韧性，新兴的更有效率的经济互动就会不断地出现。中国



的人均 GDP 水平、人均资本存量水平还非常低，只有发达经济体的 10%-20%。在这样的情况下，大家担心我们有没有需求以及需求无法创造出来是没有太大必要的，因为在人均 GDP 还比较低时，消费结构会有很大的变化和升级的空间，经济结构变化和产业升级的趋势也会不断创造投资机会。

中国经济今天这个局面的确有令人悲观的一面，比如杠杆率和信贷密度过高，部分产能过剩以及国有部门的垄断问题，但是像过去一样，这个局面也往往会促使政策和体制做出适应性的改变以求得新的和更有效率的经济活力的释放，实现创造性的新的增长，从而继续保持了经济发展的主流。这一次看上去也没有例外，值得期待。如果是这样的话，我们也可以说，我们每次面临的冲击和危机都不会被浪费。

## 亚洲经济如何重返繁荣

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1989年泡沫经济的破灭让日本的经济增长陷入长期停滞；1997年的金融危机又让不少东南亚国家陷入了长期的经济衰退中；时至今日，中国的经济增长也出现了断崖式的下降，经济增长率从2007年的14.16%迅速下降到了2014年的7.4%；从目前情况看，除了印度还能维持一个较高的经济增长率之外，大部分亚洲国家的经济增长都呈现出举步艰难的态势。

亚洲经济该如何做才能重返繁荣呢？为此，我们先要找到亚洲经济走向衰退的原因。如果把亚洲的经济增长与欧美做个对比，那么我们很容易发现，欧美国家经济可持续发展的期限一般都要比亚洲国家来的长。造成这种差别的主要原因在于亚洲国家基本上属于落后的工业化国家，为了缩小与欧美发达工业化国家的差距，亚洲国家大都采取了由政治精英推动的工业化发展模式。考虑到这一模式的增长目标是赶超，所以人们也经常把这样的模式称之为“赶超模式”。

从亚洲国家的实践来看，这一模式大致有以下特征：第一，急于赶超，忽视社会转型；第二，国家动员、政府主导；第三，非制度性市场和掠夺性交易。由此形成了在亚洲国家中经常可以看到的一种跨越时空、充满矛盾、且缺乏效率的体制。构成这种体制的基本要素是：传统文化+近代政治+现代市场。结果在传统文化与近代政治的制约下，本应在社会资源配置中发挥决定性作用的市场蜕变成一种纯粹的交易技术，进而演变成为俘获了国家权力的政治精英获取个人财富的工具。

1453年奥斯曼帝国攻克了当时的君士坦丁堡（今日的伊斯坦布尔），从而导致了欧亚大陆桥贸易（丝绸之路）的中断。当亚洲人对此事件不以为然的时候，欧洲人却在以极大的勇气开始寻找对外贸易的新通道，因为当时的欧洲确实要比亚洲更加贫困。1495年由哥伦布和麦哲伦开始的远洋贸易，最终使得欧洲人通过海洋建立起了新的贸易通道。远洋贸易（有时是赤裸裸的掠夺）为欧洲社会带来了巨大的变化：冒险精神，它为欧洲国家日后资本主义精神的产生奠定了基础；来自于美洲的金银，它为欧洲国家日后成功走上资本主义道路提供了金融支持；全球视野，它让欧洲人率先走出了天圆地方的农耕思维，逐步建立起了现代工业文明的世界观。

当欧洲的冒险家们通过远洋贸易致富后，社会变革就是不可避免的了。首先，需要确定的是通过远洋贸易获得的财富是否合法；其次，假如这样的财富是合法的，那么人们是否有权利自由处置这些资产。为此就需要对传统农耕文明加以系统的改革。于是就有文艺复兴、宗教改革、资产阶级革命和工业革命。其时间跨度都要以百年来计。之所以需要这么长的时间来完成社会转型，原因就在于社会转型所涉及的问题是文明基因的演化，

不经过几代人的创新与认同，复辟随时都有可能发生。

反观亚洲国家的工业化发展历史，可以清晰地看到，几乎没有一个国家是经历过如此长期和系统的社会变革。面对巨大的经济落差和竞争压力，以尽可能短的时间来实现对欧洲国家的经济赶超很自然地成为战略首选。于是，社会转型所需的各种改革被搁置了，在某些领域和层面上不得不进行的改革也是为了实施赶超战略而不得不采取的一些战略措施。由此造成的后果便是文化、道德、政治与经济活动的不相匹配，从而造成了经济可持续发展的障碍。特别有必要指出的是，文化与政治革新的滞后，压制了代表着社会新生产力的新兴阶级的崛起，从而丧失了经济可持续发展的动力来源。

由政治精英推动的经济增长产生的第二个问题是：由国家动员、政府主导型经济增长带来的低效率与不稳定。通过国家动员、集中社会全部财力来实现经济赶超，会带来一系列的不良后果：税收高企、效率低下、市场准入管制、用产业政策来替代市场竞争、直至侵犯私人产权、破坏市场交易。受这些不良后果的影响，人们经常可以看到，在亚洲的各个经济体，即便出现了可观的经济增长，但仍然无法有效解决贫困问题。原因就在于，高税收使得国民收入的初次分配对政府有利，而不是对人民有利；效率低下，使得国民真实财富增长缓慢；政府对市场准入的管制造成了普遍的机会不均等能；产业政策扭曲了价格信号与自由竞争的活力，并且经常造成供求失衡和失败的投资；当政府的不当干预导致经济增长出现危机的时候，管理当局甚至还会限制人们正当行使产权和进行市场交易的权力。至于政府主导的经济增长为何会加剧经济波动，这可以从政府行为与企业行为所面临的约束条件之异质性来加以说明。企业所面临的约束可以概括为：来自于供给方面的预算硬约束和来自于需求方面的出清硬约束。受这两种约束，企业不可能进行无效的投资和生产活动，否则就有可能面临亏损、破产直至倒闭的危机。然而，政府所面临的约束就不同了：由于政府可以通过提高税收来突破既定的预算约束，所以，政府的预算约束远比企业要“软”约多；另一方面，政府投资也不会像企业那样，还要受到市场出清的约束，政府可以投军工、投研发、投基础设施建设，这类供给究竟多少算是合适的，由于没有“市场出清”的约束，从来就找不到一个合理的均衡点。结果，政府主导的经济增长所面临的唯一约束就是它能够占有和动员的资源。正是由于政府行为的约束条件过于软化，使得政府的约束边界源源大于企业，这就很容易造成过度投资，并在遇到资源瓶颈后又过快趋于收缩，从而加剧了经济的波动。

由政治精英推动的经济增长所带来的第三个问题是市场的非制度化发展。一种有效的经济增长必须是要让市场在资源配置中发挥决定性的作用，由市场来配置资源之所以有效率，就是因为一种制度化的市场经济存在以下激励，从而可以导致资源配置的优化，这些激励可以简单概括如下：产权激励、竞争激励和创新激励。但是，在政治精英推动的赶超型经济体中，

并不存在这样的激励。赶超型经济需要国家动员，为此就会形成产权界定不清的问题，并且还会严重忽视对私人产权进行有效的保护；赶超型经济采取政府主导的增长模式，于是就会产生政策对市场竞争的替代；赶超型经济属于资源动员型经济，而非利润驱动型经济，因此就会产生官员对企业家的替代。模糊产权对私人产权的替代，导致产权激励的缺失；产业政策对市场竞争的替代，导致竞争激励的缺失；政府官员对企业家的替代，导致创新激励的缺失，因为创新是企业家的本能，与政府基本无关。这些缺失不仅降低了经济活动的效率，而且还造就了一种非制度性的市场体制。从以上的分析来看，所谓的非制度性市场是指产权界定不清晰、竞争不自由与决策主体不在市场的一种体制，在这种体制下，政治精英的意志和政府的政策可以随时随地地施加于市场行为的主体，从而导致各种各样扭曲性的干预，资源的错配与经济波动的加剧。不仅如此，从亚洲国家的经验来看，非制度性的市场还产生了盈利性的政府与掠夺性的交易。盈利性的政府表现为政府利用其控制的公营部门与市场争利，在极端的情况下还将公共品当做政府盈利的工具。当政府越过其职能边界、进入市场与民争利的时候，市场行为的当事人就会越过其道德底线从事掠夺性的交易，那就是将品质低劣、甚至可能会给人们健康与安全带来危害的产品投向市场、谋取暴利。结果，市场就从一种有效配置资源的制度，变成了政府与市场行为当事人谋求不正当利益的一种交易技术。

面对以上这些制约因素，亚洲经济如何才能实现可持续增长呢？

亚洲国家首先需要实现从传统农耕文明向现代工业文明的真正转型。为此，我们需要对农耕文明下形成的道德观、财富观以及社会制度加以改革。

从道德上来讲，在农耕文明中，经商是不道德的行为，但在工业文明中从事财富生产和创造的商业活动却具有崇高的地位，为此，亚洲国家就必须实现从重农的道德观向重商的道德观之转变，否则，新兴的工商阶层，特别是企业家就很难取得合法性。

从对财富的看法来讲，在农耕文明中，财富即是占有、特别是对土地与不动产（房屋）的占有，但在工业文明中，财富就是人们所拥有的创造财富的能力，因为人们注重创造财富的能力，所以才有财富的涌流，为此，亚洲国家就必须改变对于财富的农耕认知，没有这样的改变，就难以改变亚洲国家只要经济增长，人们就会忙以置地置产、政府就会推行那种为了增加税收而将房地产部门列为经济增长之主导部门的错误做法。由经济增长带来的现金流量一旦流向土地和不动产，社会就会因为缺乏流动性和企业家精神而陷入增长衰退。不仅如此，政府与房地产商的联盟还会造成经济泡沫与社会收入差距的扩大。至于政府为何会更加愿意与房地产商结成联盟，而不愿意与企业家结盟，究其根源就在于依赖于土地财政的政府与房地产商的利益是一致的（或者用经济学的语言来讲，他们的效用函数是兼容的），但是，代表市场力量的企业家阶层一旦崛起，就有可能对政府

带来挑战，因为政府与市场力量具有彼长此消的博弈关系，这种博弈关系主要体现在税收、管制、以及政治制度的取向等各个领域。

只有当人们能够正确理解什么是财富，以及应当如何去尊重创造财富的行为和行为主体的时候，才有可能去创建能够导致财富充分涌流的新制度、并将社会引向新的文明发展的轨道。传统农耕文明所赖以运作的社会制度之基本特征是政教合一（高度集权）、普天之下莫非王土（没有私人产权）、率土之滨莫非王臣（没有自由人权）。所以，对于亚洲国家来说，从集权体制向民主制的转变，并通过这种转变来确立人权、保护私人产权，是完成从农耕文明向工业文明转型必经之路。但是，只要我们对今日亚洲的形势稍加观察就可以发现，越来越多的亚洲国家正在主动或者被动地卷入到区域内的主权之争和国家内部的权力之争中，很多国家的政府和政治精英正在把越来越多的资源和人民创造的财富投向军备，而不是经济与社会发展。亚洲国家的政治精英如若继续对必要的社会转型加以阻挠，那么亚洲经济的进一步衰退将是不可避免的。特别令人悲哀的是，在亚洲国家，居然有很多的“知识分子”为自己的一己私利，居然为集权而又低效的政治体制进行辩护，公然声称发达国家的民主制度不适合亚洲国家，他们以亚洲国家民主政治运作中的各种问题为根据，试图证明民主制度是一种不好的制度。不错，在经济赶超时期人们可以容忍具有包容性的集权政治，但是一旦实现经济起飞后，想要实现可持续的经济增长，没有民主政治给出市场空间，可持续增长几乎是不可能实现的。民主制度当然有问题，但是相比于农耕文明的君主制与贵族制而言仍然是迄今为止最好的制度。一种好的制度为何在西方发达的市场经济国家取得成功，而在亚洲、以及其他新兴市场经济国家中几乎都遭遇了“滑铁卢”般的失败呢？原因就在于任何一种制度安排能否有效运行是有条件的。成功的民主制度至少需要满足以下几个条件：第一，人权在上、主权在下的国家才能搞民主，否则民主制度就会演变成为不同党派之间的权力之争；第二，人民必须有共识和理性，否则民主就会成为社会动乱；第三，民主必须要有财富的约束，否则就会演变成为革命。所以，民主制度在亚洲国家发展的不好，不是民主制度本身不好，而是亚洲国家至今还没有去积极创造推行民主政治所必需的社会条件。简单地模仿西方国家的民主程序，很有可能导致民主制度胎死腹中。

为实现经济可持续增长，除了社会转型之外，还需要改变经济增长的方式。

目前，大部分人对于亚洲究竟应当如何转变经济增长方式的理解是不正确的，从而导致亚洲经济增长在结构上向着两个错误的发展方向在调整：一是大幅度提高服务业（第三产业）在国民经济中的比重；二是，从低端加工制造向高技术产业的升级转型。经济学的常识告诉我们，发展中新兴市场经济国家人均收入水平偏低，缺乏服务需求，而快速的产业结构调整有造成了生产性服务的需求下降，结果当服务业缺乏服务对象的时候，只

能走上自我循环、纯粹属于交易的虚拟金融活动，这样的经济增长不仅带来了巨大的金融风险，而且也导致日益严重的社会分化，一边是从事金融交易的高收入者，另一边则是缺乏就业机会、不断陷入经济困境的普通劳动者，这种非包容性增长很容易激化社会矛盾、直至引起阻碍经济可持续发展的社会冲突。与此同时，由于缺乏禀赋的支持，亚洲国家旨在提升产业结构的产业政策也大都没有能够达到预定的目标，从而在存量低端产业被挤出、流量创新又无法实现的双重冲击下，先后走上了经济增长的衰退之路。

历史的经验反复证明，结构是刚性的，结构最终是受禀赋约束的，所有的产业政策都改变不了禀赋，当然也就改变不了结构。所以，亚洲新兴市场经济国家试图通过提升产业结构来避免掉入“中等收入陷阱”是一种极其错误的战略思维。从发达工业化国家到新兴市场经济国家的经验中，我们可以看到的事实是，政府的产业政策基本上都没有取得预期效果。在上个世纪80、90年代，欧洲国家的产业政策支持发展“第五代”计算机，结果市场却发展了无线网络与云计算；美国的产业政策是支持发展半导体，结果市场创新却带来宽带与iphon；这些年来，当中国政府的产业政策支持发展光伏与新能源的时候，市场却掀起了互联网。互联网之所以能够在中国崛起，就是因为互联网市场是一个政府管制最少、创业成本最低的市场。由此可见，一个国家经济的可持续增长靠的不是政府的产业政策，而是政府如何去放松对于市场的管制，给予市场力量以自由的发展空间。但是，为何在亚洲国家，政治精英们会普遍偏好于经济结构调整呢？说到底，就是为了控制资源配置权力，并且在可能的情况下嵌入自己的私利。不调结构，资源配置是市场说了算，一调结构便是政府说了算。所以，要不要产业政策，其实是发生在政府与市场间的资源配置权之争。结论是清楚的，没有政治精英的觉悟，产业政策的淡出是很难的。

假如政府不应成为资源配置的主体，那么政府在经济增长中究竟应当扮演什么样的角色呢？或者换句话说来说，亚洲国家究竟需要何种意义上的增长方式转型呢？答案是明确的，亚洲国家真正需要的是制度上的转型，而不是技术层面上的结构调整。后者是由市场力量来决定的，市场会根据禀赋和需求结构找到一种最好的经济结构，但其制度前提就是要把国家动员、政府主导的经济增长方式改变成为产权激励、市场主导的经济增长方式。所以，亚洲所需要的制度转型应当是尽可能增加市场力量在资源配置中的权力，为了建设这样的经济体制，仅有中央政府与地方政府的分权（这仅仅是政治精英内部的分权）是不够的，关键是要在明确界定政府与市场边界的基础上，通过转变政府职能来实现政府与市场的分权，借以完成社会资源配置方式的转变。一旦把社会资源的配置权力交给市场，那么政府应当做什么呢？经济学的基本知识和发达工业化国家所积累的经验告诉我们，政府应当站在比市场更高的道德立场上，去推进可持续、包容性增长。具体来讲：政府应当通过生产各种公共品来减少社会收入分配的差距，促

进社会公平与公正，考虑到人们创造财富的能力从高到低是一种概率分布。因此，不管社会的制度设计有多么公正，仍然难以实现收入分配的均等，但是政府生产的公共品可以显著的缩小由于能力差异所引起的收入分配的差距，因为这些公共品的消费不受人们收入水平高低之影响，当然，公共品不应该仅仅限于物质形态的、还应当扩展到法律形态的，前者可以保证人民分享经济增长的成果，后者可以保证人民分享参与财富创造的权利；政府应当尽可能给予所有人以公平接受教育、公平参与就业和市场竞争的机会，这意味着政府必须充分尊重人权与产权，只有当人民拥有了自由人权和自由产权自后，创新才会成为常态，经济才能实现可持续增长；政府的所有行为必须受预算的约束，在公共品生产过程中也应当遵循企业的会计法则，尽可能地以最低的税收来生产尽可能多的公共品，决不能通过随意扩张资产负债表而把自己变成一个盈利的政府，并让政府部门演变成为滋生贪污腐败的温床。对照以上各点，我们不难发现，在今天的亚洲，具有如此道德境界的政府确实不多。所以，亚洲国家能否实现可持续、包容性增长，关键在于政治精英们愿意站到多高的道德境界去创建制度性的市场经济，实现从农耕文明向工业文明的转型。

最后需要强调指出的是，任何社会的转型都离不开教育的发展。教育就是把前人的经验变成知识传授给后人，所以知识也可以定义为有意识的经验。如果教育可以这样来定义，那么对于走在历史前沿的人来讲，教育就是知识的生产，对于后来者来讲，教育就是知识的传播。从这个定义来讲，读书认字不是教育，书写和背诵也不是教育，教育更不是用来培养忠诚的。没有教育的发展，知识就会迅速贬值。从历史上看，就像威尔·杜兰特夫妇所指出的那样，多数社会内部的野蛮化都是因为少数人控制教育和经济机会的结果。对于亚洲国家来说，教育定义的错误和教育机会被少数人控制的问题同时存在，以至于从平民百姓到政治精英都缺乏足够的知识和理性，从而导致了从传统农耕文明向工业文明转变的困难。这种困难源于教育不足导致的创新不足，包括制度的和技术的。因此，亚洲国家为实现可持续的经济增长、重新创造繁荣，没有教育的改革和发展是难以做到的。

# 加强中非经贸合作，鼓励民营企业“走出去”

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## 一、现状及原因阐释

当前新一轮的全球化中，区域主义的兴起是一大特征，跨国主义的全球治理模式正发挥越来越大的作用，各类区域性贸易组织及国家合作活动频繁。而自 2008 经济危机以来，全球经济缓慢复苏，非洲将依靠后发优势和人口红利逐步向新兴市场国家收敛，有可能会成为增长速度上的亮点。在国内，2014 年以来中国经济增速放缓已经成为不争的事实，未来中国需要找到新的发展动力。随着“一带一路”的战略构想的提出和金砖国家开发银行及亚洲基础设施投资银行的成立，发展中国家的基础设施建设和资源投资成为未来中国企业“走出去”的重要方式，而亚洲和非洲的经贸合作也因而具有广阔前景。

中国加大对外投资比重，分享其他国家增长红利是必然趋势。一方面中国人口结构日趋老龄化，未来可能面临劳动力下降甚至不足，且国内潜在经济增长和资本回报逐渐下降；另一方面，中国所有的制造业行业均出现产能过剩。从对外投资的现状来看，中国目前对外直接投资与自身经济体量极不相称，具有巨大的提升空间。2011 年中国 GDP 占世界比重为 10.48%，而同期中国对外直接投资流量占世界比重仅有 4.05%，存量占比只有 1.73%。中国的对外投资具有巨大的增长空间。

近年来中国对非洲的非金融类直接投资在绝对值上增长很快且企业数量占比较大，2013 年中国对非洲的投资比 2012 年增长了 33.9%，中国在非洲地区设立的境外企业数量占所有境外企业的 11.6%。此外，中国与非洲的贸易一直保持了较快的增长，与中国相比，非洲在原材料、初级产品方面具有较强的比较优势。中国的资源和原材料相对比较短缺，随着经济的快速发展，中国国内现有的资源已经无法满足日益庞大的产业发展需求，而这方面恰恰是非洲的比较优势所在。

与此同时，中国目前对外直接投资由国有企业主导，2011 年占比达到 62.7%。以国有企业为主导的现状导致了对外投资低效率和投资结构同质化等问题，微观企业的对外投资集中在国有企业垄断和主导的采矿业、制造业和与基础设施建设及房地产密切相关的领域。2011 年采矿业对外直接投资总量上是制造业的 2 倍，农业的 18 倍，并且这一趋势在金融危机造成国内产能过剩和国际能源价格下跌条件下不断扩大。

上海及长江三角洲经济区经济较为发达、市场化程度高，私营企业较其他地区更为活跃。上海的对外投资主体中，私营企业投资项目较多，而国有企业投资金额较高。2012 年的投资项目中，以项目数量来计算，私营企业占 63%，国有企业占 20%，而以投资金额来计算，私营企业占 30%，



国有企业占 60%。在行业上，上海市的企业对外投资主要集中在批发零售业与商务服务业，其中批发零售业占投资项目的 33.73%，而商务服务业占投资金额的 59%。

从贸易来看，2012 年（包括江苏省、上海市和浙江省）进出口总额占全国进出口总额的比重接近 40%，远超过其他地区。从上海对外贸易的主体来看，私营企业已经远远超过了国有企业，并且这一差距仍在扩大。2014 年全年，上海海关关区国有企业进出口总额比上一年下降了 6.11%，而私营企业进出口总额比上一年上升了 9.01%，私营企业的进出口总额大约是国有企业的两倍，约占进出口总额的 25.62%。

## 二、对策

过去中非之间的经贸合作主要是国际援助、能源资源贸易等，未来需要进一步扩大经贸合作的行业和地域范围，并鼓励更多企业，尤其是中国的民营企业到非洲投资，提高投资效率。可以从以下几方面与“一带一路”战略配合对接、帮助不同所有制的中国企业更好地在基础设施建设以及其他行业“走出去”：

首先需要完善相应的制度与法律。目前的对外合作机构分散在许多不同的部门，资源管理十分分散，可以借鉴发达国家的经验，成立一个负责对外合作关系的部门，集中已有的优势资源进行统一管理。建立经济合作机制是发展和推动与非洲国家经贸关系的基础和保障，要加快推动合作协定乃至自由贸易协定的签订，将“一带一路”战略与自贸区建设有机结合起来。与此同时，一些新事物如主权财富基金尚缺乏恰当的法律监管体系，需要在将来进行完善。

其次是要积极发展现代服务业，尤其是能为企业提供多方面支持的生产性服务业，并以自贸区改革为机遇，扩大服务业的对外开放程度。随着国际贸易和对外投资的增长，中国将产生对生产性服务业的大量需求。服务业的发展需要通过政府行政体制改革，转变政府职能，调整服务业的准入和监管政策，减少服务业发展的体制障碍。同时以上海自贸区改革为机遇，扩大服务业的对外开放程度，发展服务业贸易平台和外包平台，结合“走出去”的全球资本配置战略，鼓励服务业企业跨国经营，通过服务业企业参与国际竞争，学习发达国家的先进经验，推动国内企业的改革创新，提升现代服务业的整体竞争力。

第三应该搭建一个对外投资平台，为企业向世界和非洲投资新动向。中国企业对外投资需要一个功能健全的对外投资平台，这一平台既可以及时掌握全球各地投资回报和投资需求新动向，也可以对中国资本进行集聚和协同，从而提高对外投资效率。从各方面因素来看，上海是搭建这一平台的最佳场所。

上海搭建对外投资平台，在提供投资新动向方面，需要在以下几个方面有所突破：一是做好城市层面和机构层面同国外相关机构的有效对接，

及时跟踪世界投资趋势变化。目前，上海市在对亚非地区的信息搜集方面要远逊于对欧美投资环境的判断，这一情况在将来需要得到重视和改善。二是要积极发展多种形态和资金来源的智库建设，通过在对外投资领域的多样化研究和差异化信息产品服务于本地企业的对外投资需求。三是利用好上海金融机构为本地企业对外投资提供高效服务。

在做好促进中国资本对外投资的集聚和协同方面，就上海市内部而言，一是要促进企业间的信息共享和经验积累，提供关于法律、文化和企业行为等方面的信息分享机制。二是协调好企业对外投资的功能互补，避免中国企业间的恶性竞争，提高对外投资效率。三是引导和促进企业对外投资的结构升级，促进中国对外投资向产业链上游和高资产回报率的行业发展。除了城市内部对资本的协调，上海还可以通过城市间的功能差异化协同来更好地发挥对外投资平台的功能。一方面，上海市需要同其他全球城市共同构建全球生产服务业网络基础上的全球城市网络，进而服务中国对外投资战略。上海必须通过生产服务业对外开放，吸引金融、咨询、商务服务等领域的跨国公司进入，进而成为全球资源配置的关键节点，为中国资本走出去提供宽阔的出口和渠道。另一方面，上海要对内实现和其他城市在资源配置领域的有效对接。要提高上海与周边城市的要素流通效率，使人才、资源和资本能顺利向上海集中，提高对外投资平台的实力。并促进上海市和中国其他城市在信息传递、交通运输和资源流动方面的有效性，以上海作为信息集散中心，将其他城市网络节点的信息汇总到上海，同时向其他城市传递当前对外投资新趋势和投资结构导向变化，通过上海和中国其他城市形成的城市网络及时做好中国对外投资战略的有效协同。

# 以创新驱动发展，建设创新型国家

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## 一、引言

当今的世界发展格局中，科技创新已成为国家竞争力中的核心要素。特别的，08年金融危机后，单纯依靠资本驱动已经暴露出了许多问题，创新能力正在成为城市发展的全新驱动力。世界经济已由危机前的快速发展期进入深度调整转型期，亚洲国家的竞争也正从经济和产业的竞争前移到科技进步、创新能力的和人才的竞争。亚洲国家正经历从资本驱动向创新驱动的重要转变。

面临新一轮科技革命和产业变革的全球趋势，创新驱动发展战略对于中国的经济转型和国际竞争力提升更具现实意义，是中国转变粗放型的增长方式，实现可持续发展，构建“五位一体”的美丽中国之根本，也是中国成为全球范围内新竞赛规则的重要制定者和新竞赛场地的主要主导者之关键。在此背景下，党的十八大做出了实施创新驱动发展战略的和建设创新型国家的重大部署，强调科技创新是提高社会生产力和综合国力的战略支撑，将科技创新摆在了国家发展全局的核心位置。

## 二、内涵阐释

创新驱动的本质是指依靠自主创新，充分发挥科技对经济社会的支撑和引领作用，大幅提高科技进步对经济的贡献率，实现经济社会全面协调可持续发展和综合国力不断提升。特别的，党的十八大首次提出了要建设国家创新体系，包括知识创新体系和技术创新体系。实施创新驱动发展战略，就是要把这两个创新体系有效地衔接起来，构建以企业为主体、市场为导向、产学研相结合的协同创新联盟。

## 三、现状分析

自2006年颁布实施国家中长期科技发展规划纲要以来，中国确定了建设创新型国家的战略目标，包括航天、深潜、超级计算机等一系列重大专项取得迅速进展。据统计，2013年中国全社会的研发支出达到了11846亿元，约占当年国民生产总值的2.08%，其中中央财政科技投入逾2700亿元，对科技创新战略的重视可见一斑。然而，与发达国家相比，中国的科技创新能力仍然存在较大差距。

### 1. 原始创新能力不足

原始性创新意味着在研究开发方面，特别是在基础研究和高技术研究领域取得独有的发现或发明。原始性创新是最根本的创新，不仅对科技自身发展会产生重大牵引作用，而且将对经济结构和产业形态带来重大变

革。诸多证据表明，我国的原始创新能力仍然较为低下。不仅在诺贝尔自然科学奖、国家自然科学一等奖、技术发明一等奖等高水平科技奖项上，中国尚为空白或连年空缺，而且相当一部分的科研成果和专利发明质量不高，对实体经济的贡献度较小。据相关研究表明，中国的科技转化率只有20%，而发达国家高达80%；在中国，科技对GDP的贡献是21%，而发达国家通常高达80%。此外，中国缺乏拥有自主知识产权的核心技术，特别在计算机、汽车、化学等行业，核心技术仍然由欧美等国垄断，核心部件严重依赖进口，过度依赖技术引进，不仅在经发展上受制于他国，而且长期来看不利于自主创新能力的提高。

## 2. 企业创新动力不足

企业是科学技术转化为生产力的载体，其创新能力的提升是国家整体创新能力提升的关键。因此，企业应当成为技术创新的主体。然而，目前我国企业自主创新能力薄弱，已成为制约我国经济社会发展的瓶颈。一方面，不少企业满足于从国外引进先进技术，进行简单模仿或者照抄照搬，而不对技术进行消化和二次创新；另一方面，由于我国对知识产权的保护不到位，造成企业专利意识薄弱，原创技术难以得到保护，削弱了企业创新的积极性。此外，我国企业的研发投入不足，创新人才匮乏，制约了企业创新活动的有效开展。我国企业的研发投入只占GDP总量的1.2%，相比于发达国家平均3%-5%的投入而言太少。与此同时，由于我国高校培养体制和企业招聘体制方面的不足，企业面临着创新人才的缺乏。最后，企业创新较少与高校和科研机构进行沟通合作，也降低了科技创新活动的有效性。

## 3. 缺乏有利的创新环境

良好的创新环境，对创新成果的适当保护是孕育创新人才和创新活动的摇篮。然而，就目前而言，中国的知识产权保护机制仍然非常薄弱，相关法律不健全或实施成本过高，使得专利得不到有效保护，而侵权行为没有受到相应惩处，从而削弱了创新动机。其次，风险投资等金融支持机制也尚不成熟，使得社会的资源配置出现扭曲，制约了创新活动。具有创新意愿、商业经验、技术优势的中小企业缺乏相应资金，其创新活动被严重束缚。而拥有大量社会资源的大型国有企业却缺乏创新意愿，造成了创新资源的浪费。

## 4. 创新中心城市尚未建成

当前，中央政府明确要求上海成为改革开放排头兵和科学发展先行者，努力推进科技创新、实施创新驱动发展战略，加快向具有全球影响力的科技创新中心进军。然而，根据全球主要创新中心的分类比较研究，上海距离全球创新中心的建成仍然存在以下几方面的差距：第一，企业创新能力不足，70%的科技型企业没有自主研发机构，大量依赖引进技术和对现有技术的简单改造；第二，科技创新难以实现市场化，科技研发脱离市场需要，重大研究成果、技术产品不能实现商品化和产业化，产学研合作方面仍有

较大的改善空间；第三，基础设施及信息通讯技术发展相对落后，信息化水平远远低于国际大都市和亚太地区的主要城市。

#### 四、政策建议

建立国家创新体系，走创新型国家之路，已成为世界许多国家政府的共同选择。十八大提出的“创新发展战略”进一步明确了新时期新改革的要求，为中国未来的科学发展指明了前进方向。特别的，可以从以下几方面着手，推进创新驱动发展战略的实施：

##### 1. 稳定支持基础研究，引领科技创新大方向

首先，要优化中央科技财政结构，尽快提升基础研究投入强度。建议在10年内，将中央财政中基础研究比例稳步提高到发达国家的低限，即30%的水平（目前仅为15%）。增量主要用于重要科学平台和人才培养以及引导地方和企业增加基础研究投入，建立多元化的投入体系，带动全社会基础研究投入尽快达到占研发总经费的10%。

其次，要鼓励引导地方财政提高基础研究的投入水平。建议将基础研究纳入对地方政府科学发展观的政绩考核体系，并设专门经费渠道，引导地方大力提高基础研究投入。

最后，要充分调动企业投入基础研究的积极性。建议借鉴国外成熟做法，设立企业基础研究引导基金，同时，调整和研究制定有利于激励企业投入基础研究的财税政策和评价体系，发挥企业的积极性。

##### 2. 完善创新激励和保护机制，引导企业成为创新主体

首先，要完善科技创新投融资体系。加快推进科技计划和科技经费管理制度改革，综合运用无偿资助、偿还性资助、创业投资引导、风险补助、贷款贴息等多种方式，引导和带动社会资本参与科技创新。支持创业投资基金的发展，综合运用阶段性参股、风险补助、投资保障等形式，引导创业投资机构向初期科技型中小企业投资，促进其创新发展。进一步加强金融机构对国家科技重大专项、科技型企业孵化培育、科技成果转化、战略型新兴产业培育等重点科技工作领域的信贷支持力度。

其次，要完善知识产权保护制度。在立法层面，进一步完善版权、专利权和商标权等法律法规，特别是出台和完善其配套行政法规、部门规章、司法解释等。在执行层面，深化知识产权行政管理体制改革，形成权责一致、分工合理、决策科学、执行顺畅、监督有力的知识产权行政管理体制。此外，还应完善科技创新的税收优惠制度。比如，加大对企业研发和自主创新投入的所得税前抵扣力度；优先推动高新技术企业实行增值税转型改革等。

##### 3. 加强业界与学界的交流合作，构建产学研协同创新联盟

协同创新的实现，核心在于善用利益驱动机制，促成优势互补、分工明确、成果共享、风险共担的开放式合作模式，使合作从短期、松散、单项逐步转向长期、紧密、系统。在合作过程中，既要坚持企业主导研发过程，发挥企业在创新目标提出、创新资源配置和创新活动组织实施中的主导作

用，又要引导和支持科研机构开展面向企业的基础技术、基础工艺、工程化应用和系统集成的研发与服务，促进从研究开发到产业化的有机衔接，加快创新成果的产出和转化应用。

为此，必须强化技术中介“牵线搭桥”的能力。积极搭建技术中介服务机构与高校、科研院所之间的交流平台，建立优秀中介服务机构的政府推荐制。尤其的，应大力发展知识服务机构，加大市场化、专业化中介服务机构的培育力度，引进和培养一批熟悉国际规则、具备实务操作能力的高层次技术中介服务人才。

其次，必须建立创新人才自由流动机制和灵活使用机制。一方面，科研院所和高校要把培养应用型、复合型科技创新人才作为一项长期使命。另一方面，应建立健全高水平创新人才自由流动机制和灵活使用机制，鼓励科研人员踊跃投身创新创业。同时要调整优化科研人员评价考核的理念和机制，建立以科研能力和创新成果为导向的评价标准，充分激发创新活力。

#### **4. 营造创新文化氛围，培育创新精神**

营造真正的创新文化，需要实现两个转变：一是突破实证主义的狭隘观念，从片面强调实证性和逻辑性的实证主义科学观，转向强调以实证性和逻辑性为基础、以思想性和创造性为主导的新理念；二是要从片面强调工具性和功利性的功利主义科学观，转向强调以工具性和功利性为基础、以文化性和精神性为先导的科学发展新理念。在实践层面，创新教育是培育创新文化的重要途径。建议改革当前“以高考为中心”的教育观念和教学方式，重视培育和发展学生个性和特长，引入培育创新能力的教学方法，注重逻辑分析能力的培养，将研究引入教学过程，开展研讨式学习，加强实践教育。

#### **5. 加快创新中心建设，提高全球科技影响力**

作为全国经济、金融、商贸、航运中心，上海必须肩负起创新中心建设的重任，成为创新驱动发展战略和创新型国家建设的助推器。为此，必须在硬件基础设施日趋完备的基础上，大力完善大数据、云计算、平台经济、移动互联网等软件基础设施建设，提高城市信息化水平，吸引高科技产业形成集聚；建立包含产权保护、专利审核、专利资本化和专利产业化的完备的知识产权体系，激励科技创新活动的开展；依托高等院校和科研机构的平台优势，加强产学研合作，促进科研创新成果顺利实现产品化；引导和鼓励风险投资，提升科学成果的孵化能力，优化和完善成果转让和知识产权变现机制；完善人才引进制度，吸引世界顶尖的科技人才进入上海，以提供强大的智力支持。此外，还必须不断推动政策创新和服务创新，为科技创新创造良好的政策环境。

# 上海论坛政策建议报告——丝绸之路圆桌会议

复旦大学经济学院 王健

近年来，“丝绸之路”被国家频繁提起，并逐渐纳入中国战略层面：2013年9月7日上午，中国国家主席习近平在哈萨克斯坦纳扎尔巴耶夫大学作重要演讲，提出共同建设“丝绸之路经济带”的设想。2013年10月3日上午，习近平主席在印度尼西亚国会发表重要演讲时强调中国愿同东盟国家共建21世纪“海上丝绸之路”。2014年索契冬奥会期间，习近平主席和普京总统就俄罗斯跨欧亚铁路与丝绸之路经济带和海上丝绸之路的对接问题达成了战略共识。

丝绸之路经济带和21世纪海上丝绸之路（简称“一带一路”），是以习近平同志为总书记的党中央统揽全局、顺应大势做出的重大战略决策。这一宏伟构想将给古丝绸之路赋予新的时代内涵。丝绸之路曾经是古代沟通东西方文明的著名商道，为沿线国家之间的贸易、文化和思想的交流与融合做出了重要的贡献。在世界经济和文化联系日益密切的今天，重新连接起“新丝绸之路”的经济战略很可能为其线上国家的社会 and 经济发展注入新的活力。

建立21世纪丝绸之路经济带和21世纪海上丝绸之路，将从各个方面对国内外社会经济带来巨大效益，为此我们拟提出如下政策建议：

## 一、促进沿新丝绸之路线上的基础设施建设及其一体化

1. 促进交通基础设施建设。包括铁路、公路、口岸、民航，重点方向是中亚、南亚、东南亚，中老、中泰、中缅、中巴、中吉乌等铁路项目可能会优先考虑。中塔公路、中哈公路可能会成为重点改造的路段。

2. 扩大海运贸易额，带动沿岸港口的基础设施建设

3. 加强沿线的能源合作和能源基础设施建设，包括石油、天然气和电力。在油气管道建设上，西北、西南、东北、海上都是油气运输的战略通道。这包括中俄、中亚天然气管道，中缅油气管道都会作为重点项目建设。西南电力通道、中俄电力通道都会进行部署，建设或升级改造。

## 二、提升新丝绸之路沿线国家的贸易合作及战略整合

以美国为首的西方国家主导着当今的国际贸易体系，以贸易自由化为旗号，设立许多条款限制发展中国家的工业政策，保护西方国家的历史优势。美国通过跨大西洋谈判、12国参加的《跨太平洋战略经济伙伴关系协定》（TPP）谈判，以及20多个国家旨在重新制订全球服务贸易规则的谈判来限制中国的发展，并且积极推行重返亚太的对外政策，利用日本在东亚地区制造事端，以达到阻碍东亚一体化，遏制中国崛起的目的是。中国通

过建立新丝绸之路经济带，可以在世界格局发生复杂变化的当前，主动创造合作、和平、和谐的对外合作环境，也为重新整合东亚和南亚就创造了有利条件。

进一步深化“走出去”发展战略。2009年及其之后年份，在世界经济尤其是发达经济体剧烈减速导致外部需求进一步减弱，西方国家纷纷调结构、去杠杆、再工业化，国际贸易保护主义重新抬头并且威胁增大的背景下，中国出口高速增长已然无法持续。中国长期“出口—投资导向型”发展战略所形成的巨大供给能力，在欧美等发达国家经济增长放缓、需求减少的情况下，很难得到适应性收缩，从而给经济发展造成较大冲击。丝绸之路经济带的构想如顺利实施将重新打通阻滞多年的亚欧经济动脉，实现各国从交通、贸易直至投资、金融的互联互通，建立宽广的国际市场，描绘出惠及经济带沿线各国乃至影响更为深远的亚欧经济新版图。

建立富有活力的国际贸易新体系。所谓新丝绸之路经济带，本质上就是从中国开始，沿着丝绸之路途经的国家和丝绸之路两侧附近的国家，从亚洲一直到欧洲、非洲以及南美洲，构建一个经济发展走廊。从新丝绸之路经济带所容纳的国家和地区来看，我们可以看出这是正符合欧亚非以及南美大陆经济整合的大方向的。沿着这个大方向前进，将惠及将近世界四分之三的人口。

丝绸之路经济带地域辽阔，有丰富的自然资源、矿产资源、能源资源、土地资源和宝贵的旅游资源，被称为21世纪的战略能源和资源基地。丝绸之路经济带，东边牵着活力四射的亚太经济圈，西边系着发达的欧洲经济圈，还有广阔的非洲和南美洲大陆，沿线国家经济互补性强，在交通、金融、能源、通信、农业、旅游等各大领域开展互利共赢的合作潜力巨大。

### 三、新丝绸之路经济战略中的金融解决方案研究

贸易及其整合的金融方案：摆脱西方对货币金融的垄断，建立以人民币为中心的货币体系。

基础设施建设及其一体化的金融方案：除了亚洲基础设施投资银行和丝路基金外，金砖国家开发银行、上合组织开发银行的建设等俱是“一带一路”的资金保障。而正在酝酿中的丝路银行以及海上丝路银行也将为新丝绸之路沿线国家金融合作提供更多元化的选择和契机。

### 四、新丝绸之路经济发展风险控制及政府作用的研究

基础设施建设及其一体化的风险控制，措施包括协调国家间的政治、宗教矛盾。

新丝绸之路沿线安全问题的风险控制，措施包括政府间加强合作，打击毒品、恐怖主义以及三股势力的联合行动等。

加强各国政府对新丝绸之路经济带的支持。措施包括：利用四百亿美元的丝绸之路基金，为“一带一路”沿线国家基础设施建设、资源开发、



产业合作等有关项目提供投融资支持；设立基础产业发展基金及其出资模式、金砖银行贷款的保障政策、IMF 贷款的保障政策等。

## 五、充分发挥上海在新丝绸之路建设中的战略作用

上海作为中国经济发展的领头羊，在“一带一路”国家战略中具有天然优势和不可替代的地位。所以，对于上海而言，要把“一带一路”国家战略与上海发展有机结合起来，充分利用地缘优势，不断开拓和延伸新的空间禀赋，立足东海之滨，对内依托长江黄金水道和通达的铁路网络沟通内陆城市，对外通过国际空港和海港对接世界大市场。上海既是连接亚太地区的天然枢纽，也是国际经贸往来的最佳窗口。凭借良好的基础设施以及软硬件管理水平，上海有能力推动“新丝绸之路”区域在贸易、投资、金融、通讯和基础设施建设等领域的全面合作，使得“新丝绸之路”真正上升到国家和地区经济命脉的战略高度。上海在金融、物流、互联网、航运、国际贸易等现代服务业以及教育、医疗、养老等民生领域均处于国内和亚洲地区的领先地位，能够为“新丝绸之路”建设提供各种服务和智力支持，促进我国与“新丝绸之路”沿线国家在金融、贸易和投资领域的全面深入合作。

作为连接亚洲中西部、中国和太平洋经济圈的地理枢纽，上海一方面应该更加积极应对 TPP 和美国“重返亚太战略”的挑战，另一方面在加强上海自由贸易试验区建设、打造“4+2 个中心”的同时也需要更多地研究和探索“向西看”的政策，作为重新审视亚洲格局重要组成的“新丝绸之路”战略对我国有效突破欧美发达国家的封锁具有十分重要的现实意义。

建设“新丝绸之路”，加强国内与地区经济合作，上海应当发挥积极的战略协同作用，在国家和地方政府的政策引导和支持下，充分依靠要素集中、人才辈出、视野开阔、理念先进等优势，与“新丝绸之路”、亚洲基础设施投资银行、亚太自由贸易区等建设进行有效的互联互通，进一步凸显和强化上海对国家改革和转型战略的支持和响应。

（本部分沿用《上海能从“新丝绸之路”建设中获得什么？》观点，发表于 2014 年 11 月 20 日，澎湃）

# 上海在“一带一路”国家战略中的地位与作用

复旦—甘肃丝绸之路经济带协同发展研究院 侯杨方

简称“一带一路”的“丝绸之路经济带”和“21世纪海上丝绸之路”是国家的重大战略，作为中国的经济中心，改革开放的龙头城市，上海应该、必须、也完全能够在这一国家头号工程中发挥自己应有的重大作用。

## 一、上海是“一带一路”最重要的枢纽与节点

古代陆上丝绸之路起点在汉唐的两京（长安、洛阳），交通工具主要是马、骆驼等动物，现代陆上丝绸之路的主要交通工具已经变成汽车、火车，而上海位于亚欧大陆的陆路交通终端，是中国重要的铁路枢纽；更为重要的是，上海是中国乃至世界最大的港口，是现代海上丝绸之路最重要的港口与起点，因此上海是现代陆上与海上丝绸之路的交汇处，天然地是“一带一路”最重要的枢纽城市。另外，作为“长江经济带”的龙头城市，上海可将“一带一路”与“长江经济带”无缝衔接，将“一带一路”的幅射深入到中国的腹地。

## 二、上海建设“一带一路”已经取得的业绩

从历史看，早在“一带一路”战略提出以前，上海已经在实质上积极参与“一带一路”所经地区的援建工作：2001年，积极响应、参与中央“西部大开发”；2010年5月17日，响应中央新疆工作座谈会，上海又积极开展了对口援疆工作，援建地点恰好是古代丝绸之路的交通枢纽——位于帕米尔高原下的喀什地区。

作为坐落于上海的著名高校，复旦大学以实际行动，积极参与“一带一路”建设。2012年10月，地处丝绸之路黄金段的甘肃省人民政府与复旦大学在兰州签订战略合作协议，共同推进甘肃省经济社会建设和高等教育事业发展；自2013年4月起，对古代丝绸之路上最艰险、最重要的交通枢纽帕米尔高原进行了五次实地考察，这是百年来世界第一次，并在此基础上制作出了世界第一套《丝绸之路地理信息系统》，首次精准还原了丝绸之路路线；为了响应“一带一路”；2014年8月，复旦—甘肃丝绸之路经济带协同发展研究院挂牌成立；2014年12月，当年积极参与“西部大开发”的上海瑞南企业发展集团有限公司，与复旦大学签订了复旦-瑞南一带一路战略合作暨丝绸之路奖教金奖学金协议，设立了中国高校的第一例丝绸之路奖教金、奖学金，逐步整合校内外战略和政策研究的队伍与资源，最终必将形成一个多学科政策及学术研究平台，立足世界一流智库的建设，提升学术地位，推动地方政府、学校、企业的合作共赢，切实服务国家“一带一路”的战略规划与发展，这是高校与企业合作，服务于“一

带一路”的第一例。

### 三、上海未来建设“一带一路”的相关建议

由于上海独有的地理位置、优势，参与“一带一路”建设的雄厚基础与成绩，在未来会发挥更大的、不可替代的作用，具体表现在以下几个方面：

1、充分发挥上海的交通枢纽的作用，建设直接服务于“一带一路”的物流平台；

2、充分发挥上海自贸区的作用，为“一带一路”沿线的相关国家与地区展开对口服务；

3、充分发挥上海的教育、文化资源优势，建立“一带一路”教育培训中心，面向政府、企业以及招收相关国家的留学生，创造有世界影响的文化精品，对外输出中国的文化软实力；

4、将建设“全球科技创新中心”与为“一带一路”服务的两项任务有机结合，无缝对接，用科技创新来推动 21 世纪的新丝绸之路建设的高层次发展；

5、充分发挥上海金融中心的作用，设立“一带一路”国家发展银行与以人民币为交易货币的结算平台。

### 四、国家未来建设“一带一路”的相关建议

1、推动“一带一路”沿线国家地区间的、以非政府组织、教学、研究机构、慈善团体为主力的民间公共外交；

2、重视搜集“一带一路”沿线国家地区的民间舆情，特别是网络舆情；

3、重视与“一带一路”沿线国家地区间开展文化交流，联合制作高端、被能广泛接受的文化产品（网络、电视纪录片、多语言考察报告、画册等），以此推动中国文化软实力的输出；

4、充足发挥综合性大学的优势，开展针对“一带一路”沿线国家地区的历史、政治、文化、风俗、语言、地理等内容的培训活动，对象为相关政府官员与企业，并招收相关国家的留学生。

# 防范跨境数据流动风险 保护国家信息安全

上海社会科学院信息安全研究中心主任 惠志斌

## 一、网络数据安全背景

网络空间数据安全问题并不是一个新问题，但是它变得愈发重要。斯诺登事件所带来的信任危机使得国际经济领域的一些政策和法律面临现实的挑战。这对于研究者和学术界提出了紧迫的需求。

通过统计全球一日网络使用情况，对全球相应节点进行统计，可以发现网络世界与现实世界同步度很高，与人类地理分布高度吻合，其运行也与人类生产生活的保持同步，可以说网络世界已经与现实世界高度融合。

而物理世界即现实世界的全面数据化致使向网络空间的全面迁移，并带来两个改变：第一个改变是网络空间实现智慧化，包括信息映射、对物理空间的控制以及对未来的预测；第二个改变更具现实意义的净化效应，随着技术的发展净化效应很有可能发生。

在这个过程中，大数据已成为核心战略性资源，其原因有两个：第一是开放性，网络空间数据资源的开发开放数年前已推动，包括美国推出的开发浪潮；第二是竞争控制性，全球围绕全球数据的竞争和空间结构已经开始不断深化，各国已经意识到全球数据资源是一种竞争性和高度战略性的资源，因此不断加快对本国以及他国的控制。

## 二、数据跨境流动与数据管辖问题

### （一）数据权属界别三要素

作为核心战略性资源，大数据的权属界别问题也愈发重要，它可能跟三要素有关：第一是广义管辖，如谷歌公司肯定是属于美国的广义管辖，这是核心元素；第二是服务器，同样以谷歌为例，谷歌公司在英国或其他国家均设有服务器，服务器本身的地理位置必然对管辖权有影响；第三，数据反映对象自身的所属国别，同样以谷歌为例，如果谷歌在英国的服务器上存储了印度公民的数据，则印度也可能有管辖权。

### （二）应对数据跨境流动的两大趋势

数据权属关系带来两个重要问题，一个是数据的快速流动，另一个则是本地助流。关于这两个问题全球有两个较为明显的趋势，一个是美国倡导的自由和流动，作为数据先驱国家和核心资源的主体美国更加强调自由和流动的重要性，包括一些经济发展组织更加强调经济的重要性；另一个是除了美国、印度、以色列、南非和新西兰，绝大部分国家都拥有的数据跨境保护。斯诺登事件之后，全世界都着手建立安全体系，如俄罗斯于2014年7月立法强制运营商将俄罗斯居民信息存储在国内，若跨境运营商

要求对本国公民数据进行跨境传输，则需要本国公民的书面授权。有了法律依据，本地化的管理趋势也成为全球趋势常态。

### （三）数据本地化的影响

关于数据本地化影响，以中国为例，根据美国政治研究中心的研究，若全面实施数据本地化，中国将面临 30 亿美元的经济损失，其中包括境外投资。为避免经济损失，政府可以对企业责任进行约束，而不是要求企业一定将数据存储在本地设施，在这个方面，澳大利亚、新加坡、菲律宾都在尝试。未来的互联网可能不是最初统一的互联网，本地助流可能成为常态。

## 三、中国网络空间数据跨境保护政策建议

美国和欧盟在数据安全方面较为领先，棱镜门曝光前，美欧合作范围不断深化，包括安全港协议、美欧数据共享协议，其中一些冲突随着互联网全球化将面临很大变化。而棱镜门曝光期间，形式比较严峻，欧盟停止了与美国的数据共享协议和安全港协议。但是美欧之间的信任基础由来已久，棱镜门只是近一两年的事。美国发布大数据时，特别提及要保护美国公民以及价值观相府国家的居民信息，促进流动性等。

中国采取的大数据跨境流动和本地助流政策，从长期角度来说，是一种动态平衡，是有条件、有线路，甚至是吻合数据流动以及开发的政策。其中数据助流政策在较长一段时间内仍会起到一定作用，尤其在核心关键领域。

第一，围绕大国地位对本国甚至全球范围内的资源进行管理、获取以及开发，进一步探索如何占领中长期管理和系统对话。

第二，大力推动数据安全技术创新研发和产业化发展。中国的许多信息安全和数据安全问题都是由于自身安全能力不足导致。中国的两极化发展随着技术创新以及产业发展可能形成动态平衡和保护模式。一旦中国技术研发能力提升，政策制定上也可以更加开放。

第三，构建战略传播理论框架，积极参与推动数据安全治理国际进程。

第四，对中国 IT 企业“走出去”面临的数据安全壁垒进行防范。随着华为、阿里巴巴等一批中国 IT 企业的崛起，这些企业必将成为中国数据资源的开发者和主要应用者。国家应组织相关力量就全球化过程中中国 IT 企业将面临的数据安全壁垒进行研究，为这些企业“走出去”保驾护航。

第五，面向公众的数据安全和隐私保护是国家信息安全的根本。传统认为军事力量是国家安全的基础保障，但随着大数据时代的到来，大数据成为了国家信息安全的基础。大数据时代，如何塑造政府、企业、公民之间的信任关系和利益分配机制成了重中之重。

# 提升互联网治理能力是成为网络强国的关键

中国行政体制改革研究会副会长 汪玉凯

中国在工业化还未完成的情况下就进入了信息化进程，工业化与信息化进程相互交织在一起使得中国社会变得更加复杂。没有信息化就没有现代化，没有网络安全就没有国家安全。中国要由网络大国走向网络强国，但是其间遇到的挑战是巨大的。因为核心技术还不在我们的手上，来自互联网的威胁甚至超过来自天空、海上和陆地的威胁。

## 一、中国互联网治理面临的综合性挑战

**第一，中国的网络规模、网民数量、手机用户数量、手机上网用户数量、社交网络与即时通讯工具数量均达到了全球第一，这带来了巨大的挑战。**中国正处在向信息社会转变的转型期。中国的互联网普及率虽然不是世界最高，但由于体量很大、人口众多，所以呈现出来了一些挑战，即“五个全球第一”。中国的网络规模是全球第一；中国的网民数量是全球第一，已经超过了七亿人；中国的手机用户是全球第一，手机用户已经达到十二亿，智能手机用户数量已经接近七亿；直接用手机上网的人数全球第一；社交网络和即时通讯工具数量全球第一，阿里巴巴、新浪微、腾讯微信等等的注册用户数加起来已经超过了十五个亿。

**第二，快速的网络交易发展也带来了巨大的挑战。**去年，网络交易的参与人数在去年已经超过了三亿人次，网购的交易额也超过了三万亿，电子商务去年的交易额则已经超过了十四万亿。这一切都快速地把中国消费互联网推向世界。

**第三，网络参与、网络表达和网络事件对互联网治理带来挑战。**最近刚刚列出黑龙江的庆安事件，这种参与网络表达已经程度。

**第四，网络违法和网络犯罪带来了新的挑战。**网络违法犯罪包括虚假信息传播、侵害个人信息等等，这些都对国家安全和社会稳定带来了巨大的挑战。

## 二、中国政府网络治理能力存在的问题

在互联网快速发展、数亿计人参与的过程中，现行的政府网络治理存在以下四个方面的问题。

**第一，政府管理体制弊端日渐显现。**三十多个部门和政府机构都是标准管理，这就存在**职能交叉、权责不一、效率不高等**多个管理体制问题。

**第二，对网络媒体的应对和产业管理远远跟不上形势发展变化，政府缺乏管理的精力和能力。**

**第三，在加强网络法制建设和舆论引导方面存在整个互联网治理的短**

板。网络治理的很多方面缺乏法律依据，容易引起非常不好的影响。

**第四，核心技术不能自主可控给国家网络安全形成了很大的制约。**目前中国有自主可控的计算机技术体系，但没有形成自主可控的软件技术体系，也没有形成自主可控的微电子体系。中国的技术研究仍然以跟随美国的技术研究为主，技术上受人制约。

### 三、关于提升互联网治理能力的政策建议

提升互联网治理能力是实现网络强国的重要途径，互联网治理是一篇大文章，要在“积极利用、科学发展、依法管理”的方针指导下，通过以下八个方面的多管齐下，提升网络治理能力。

**第一，要在观念上变以往的消极管制为积极开放，探索合理有效管理的前提下开放，兑现构建一个开放互联网的承诺。**中国有一亿多人在翻墙，是一个非常不正常的现象。我们应当通过合理有效的管理改变这一现象，构建开放互联网。

**第二，领导体制上要在中央网络安全与信息化领导小组的统一领导下，以中央网络安全与信息化领导小组办公室作为纽带，构建互联网治理的体制机制。**

**第三，围绕网络安全、网络信息内容、信息化基础设施等关键节点提供规制，然后组建相应的责任机制。**

**第四，发挥专家咨询的作用。**在中央网络安全和信息化领导小组下设立权威的专家咨询委员会，对涉及国家互联网治理以及信息化的重大问题提出决策咨询服务。围绕计算机网络信息管理，用好包括经济学家、管理学家等在内的多方面资源，发挥专家咨询的智慧作用。

**第五，在机制上要突出严格执行、令行禁止。**最大限度地抑制和克服网络治理中的部门利益，并建立严格的责任追究制和信息审批制。

**第六，在治理方式上要树立法治思维，注重互联网治理的法治建设，逐步形成以依法治网为主，辅之必要的行政手段的治理方式。**不能长期以行政手段替代法律治理，这样只能把治理变得越来越枯燥。

**第七，充分利用云计算、大数据等新技术。**例如，在对内容的治理上利用大数据建立一套舆情预警系统，并以此为基础建立各部门之间的协同应对机制。

**第八，创新互联网的治理新格局，动员社会力量共治共建，形成良好的共治氛围。**

# 正视不同群体利益诉求 构建互联网生态平衡

人民网舆情监测室秘书长、高级记者 祝华新

一、理解舆情背后的诉求，正视不同群体的利益诉求。舆情的背后是一种真实的人群诉求，网民背后是公民。今天的互联网上面出现了左和右的多重利益诉求，背后都是真实的社会群体的喜怒哀乐和运动。今天我们要从关键词、敏感词治理，只是一个又一个突发事件，背后都是真实的网络社群，意见领袖是各种网络社群的代表人士而已，我觉得要转向社群管理，要听得懂网络贴文的弦外之音，正视不同群体的利益诉求，要让利益博弈更加透明、更加公正。

二、警惕大V，警惕越界发言的网友，包容中V。互联网上的网友大V提出了一个观点叫做包容专家型网友，在自己熟悉的领域理清建议，但是要警惕大V，警惕越界发言的网友。一些投资专家和房地产大亨是经济方面的专家，但经常在网上讨论的是政治问题，甚至是专业门槛很高的法律问题，我觉得不是这方面的专家获得一千万粉丝的影响力，某种程度上还是网络舆论的泡沫。今天一些大V由于种种原因，有的是涉嫌吸毒，已经退出了互联网，这可能是一件好事，有利于还原互联网的理性生态，同时我们提出要包容中V，孙晓这样的专家发言是靠谱的，包括在武汉五道杠少年七岁看人民日报，四岁看新闻联播，当时孙晓作为著名的青少年专家说他是未成年人，社会可以批评他的父母，不应该曝光这个孩子。

三、优化新媒体人才结构，提升综合知识素养。传统媒体也不例外，报纸杂志广播电视我们都盯得很紧，党管干部、党管宣传口径，但现在都办了微博微信客户端，在新媒体上的影响力扩展了传统媒体的影响力，同时新媒体上把关不太严谨，有的时候也轻率地转发了未经证实的消息，放大了某些偏激的情绪。微博微信客户端受众定位可以不一样，传统媒体人才结构相对理想，新媒体人才结构严重偏差。微博微信和很多央媒的部门知识结构比较单一。现在很多新闻报道是专业性程度很高，但是这些大牌的传统媒体和微博微信部门都是骨灰级的网友，缺少医学法学科学方面的专业素养。没有受过传统媒体流程的严格训练和约束，容易沾染社交媒体道听途说、好勇斗狠的习惯。

四、关注弱势群体，加强政府扶持。网上的公共知识分子是大家最关心的，我觉得也是两个方面：正如习总书记去年对民主党派的希望，希望网上的公知分子多建内知之言、多献务实之策，尤其是律师和媒体人，一方面是维护司法公正和舆论监督，另一方面也在法庭外造势，包括媒体人在自媒体上的发言变得比较轻率，有些事实在本单位没有得到发表就拿到自媒体上面发表，但并不是严格的新闻发稿流程的审核和约束，也容易变成扭曲事实真相的倾向。左翼某种程度上不是意识形态的左倾，而是实实在在



的弱势群体的呼声。朱镕基总理说过 1998 年以来国有企业下岗职工多达两千七百万，比下乡知青回城的一千七百万还多一千万，那个时候诞生了那么多伤痕文学作品，包括《今夜有暴风雪》，但比回城知青还多一千万，至今几乎没有一部给人印象深刻的文艺作品来反映他们的呼声。今天网上的这些弱势群体真实的诉求，但没有受过现代科学的教育，也不了解普适价值，他们驾轻就熟地拣起了文革时期的政治术语，用修正主义和四人帮的政治理念批评今天市场改革当中出现的市场竞争不公平、司法不公正等等。今天网络语言的某种左倾说到底可能未必是意识形态的左倾，而是实实在在弱势群体亟待全社会关注、亟待政府的扶持。

**五、鼓励微公益网友，引导青年一代积极转型。**政府要特别鼓励邓飞这样的微公益网友。当年邓飞是专门记录社会的瑕疵和阴暗面，比如著名的江西拆迁自焚攻防战，近年来邓飞转向做免费午餐大病医保，这代表了年轻一代积极的转型。中国社会还是需要这样的建设性姿态，邓飞有一本畅销书就是《柔软地改变中国》，我觉得特别需要在新媒体人士和网民当中倡导柔软改进的操作策略。

**六、加强对新媒体人士的政治引领和政治吸纳。让新媒体人士从边缘回归主流，网上的极左极右有一个共同的特点，就是都是缺少和政府机关对话的机会。**左派为什么叫得那么厉害？还有就是缺少在主流媒体发言的机会，没有机会在报纸上写文章，没有机会在电视台亮相。**越是边缘化越是激进化，所以要把他们从边缘拉向主流，提供和政府有关部门对话的机会，尽量把他们从社交媒体拉回专业媒体。**从 Twitter 拉回新浪微博，从新浪微博拉回市场化报纸，从市场化报纸吸纳到我们党报、国家电视台和主流媒体，跟主流社会对话有利于减少社会的内耗。还要消除职业网友，就是让我们的网友有一个体面的、稳定的收入，职业网友往往是流民物产者的心态，对抗性较强，越是中产阶级越是建设性的。还有就是鼓励在专业领域建言，鼓励专家型的中 V，中国转型期的很多矛盾不是政府单方面的问题，盘根错节，需要全社会一起努力。互联网不要去关注高大上的顶层设计，我们更多地引导和关心社区的改善，从身边的社会改良做起。还是要放开专业媒体，今天面对自媒体的舆论压力，把挖掘还原事实真相的专业媒体、科学专业的人脉资源，能够理性地分析社会现实的专业媒体放活，可以减轻网络自媒体的压力，不要高估网络自媒体。前几年我们网民就有几亿个公民记者，但是从马航 MH370 事件，迄今为止有关失联的真实原因有效信息恐怕不超过一千个字，今天还是需要用专业媒体对冲网络自媒体。新闻出版管理部门的门缝应该开大一点，国家网信办的舆论压力就小得多。

**七、从网络治理到社会治理，科学看待网络治理的目的。**现在地方政府部门往往关注的是互联网一个一个热点事件和舆论压力赶紧灭掉。但我们还要看到互联网是社会的减压阀，并不是越消停越好。有的时候网上太清静街头就不安定了，上网减少了上访，上访减少了上街，这是很多基层

干部深有体会的。互联网应该是一个生态制，政府不要扮演全职全能的网络警察，应该让社会阶层借助互联网这个公开的意见平台表达利益诉求，形成一种利益表达、利益博弈的透明、公正和相互对冲制衡的机制，左和右、体制内和体制外、精英和草根都有生态的平衡，哪一方面完全压下去了对社会未必是福音。互联网要协同治理，我觉得今天与其去管内容、管网友，更应该去管平台。发展网络统一战线要协调好社群，这次中央平台工作会议已经破了题。希望互联网能凝聚共识，避免撕裂。互联网是上帝送给中国人最好的礼物，我们要推动公民社会的形成，有的时候在互联网上获得话语权的第一批网友变得不愿意在同一个屋檐下对话，互联网让我们离公民精神反而更加遥远。今天的网络管理要亮剑和培养共识并举，亮剑就是开展舆论督政，清除有害信息，批评错误违法的言论思潮，说到底我们还是凝聚社会共识，互联网不是简单的灭火部门，管理的根本目的是赢得民心。网络管理说到底是要为 510 项一年内两次中央全会提出的深改措施营造很有利的氛围，凝聚社会共识、振奋民族精神，不是加剧社会撕裂，社会转型还没有起步或者刚刚起步就在意识形态纷争当中陷入社会的思想混乱和人心的闪失。网上所谓活跃的公知只是知识界的浅层，三院院士学部委员、全委会委员都不在互联网上，他们可能有马甲，但没有公开发声，声音就不能让社会及时听到和聚焦，所以要引导更多的教育资源。媒体最有价值的是专业期刊资源，加厚互联网的文化涂层，培养互联网的文化弹性。

# 中国发展社会效能现状与社会治理体系构建

复旦大学传播与国家治理研究中心主任 李良荣

中国发展社会效能是是社会大众对中国发展的满意度，是经济增长水平、政治稳定程度和人民生活幸福感知的综合表述，反映了中国社会治理的效果。本文在对中国发展社会效能的调查分析后，结合本次上海论坛的交流讨论，在此基础上，探讨中国社会治理体系构建，并对上海市创新社会治理提出对策。

## 一、中国发展社会效能现状

复旦大学传播与国家治理中心通过对新浪微博平台上覆盖多元职业、多元社会群体的网络用户进行了长期跟踪，对中国国内网民的安全感、舒适感、认同感和发展感进行测量，形成了《2014年度中国网络社会发展效能指数报告》，结合本次上海论坛期间，一些关于互联网治理和网络空间的讨论交流，发现中国发展社会效能呈现以下特点和隐忧：

### 1、中国网络社会整体呈正效能，表现出“强发展、强认同”态势，但是网络有舆论化的倾向和非理性的表达

对中国发展社会效能的数据分析表明，网络社会总体呈现正效能，理性的力量逐渐回归并成为主流，但是现如今的网络媒体是基于社交媒体的，选择性的确认让人们更加强化对固化的偏见。总体来说，网民对现存体制和社会状态表达出认可，对目前中国安全程度和舒适程度具有较良好感受，同时也展现了对未来个人和社会发展的信心。四个二级指标均呈现正效能，其中认同指数最高，发展指数次之，安全指数最低，整体呈现“强发展、强认同”的态势。

### 2、中国网民对于既存体制的整体评价倾向正面，政治信任感较强，但是需要更多地立足于中国的问题

近年来，很多群体性冲突事件的爆发被归因于民众与政府之间的冲突，作为民众重要表达渠道的网络平台上似乎弥漫着一种对于政府的负面情绪和评价，这可能是造成人们对网络社会充满负能量的刻板印象的原因之一。但中国发展社会效能指数显示，中国社会政治认同整体呈正效能，说明中国网民对于目前既存体制的整体评价倾向正面，认可度较高，政治信任感较强。且政治认同指数在不同地域、不同代际、不同网络影响力的网民之间的差异并不显著。但性别和所在群体类型对于政治认同指数的影响较大，男性、社会底层群体的政治认同指数较低，政治认同的效能较弱。在网络社会议题方面，存在一个结构性的缺憾，这可能是造成一些网民负面情绪的原因之一：对社会话题的关注和讨论并没有真正围绕中国的问题展开，而是围绕具体事件展开的，这样政府和民众之间很容易在信息传播和发展

过程当中产生隔阂，无法形成对具体问题的共识。

### **3、中国网络社会呈现的是有限正效能，整体积极但社会安全和环境舒适有待提升，社会群体鸿沟亟待缩小**

中国网络社会目前呈现的是有限正效能，虽然整体积极，但在很多方面还有待改善。一方面社会安全和环境舒适指数二者呈现负效能，另一方面社会底层群体集聚负效能，不同性别和社会群体的社会效能存在显著差异。目前的社会格局的特点之一就是共生，从现状来看是多元，从格局来看是共生：不同价值诉求、利益相关方的共生。无论是舆论引导、经济发展、社会稳定，都需要中国网络社会持续的正效能，这就需要发挥和调动好中国社会不同阶级和群体的社会力量。

## **二、基于民生为价值取向的社会治理体系构建**

从中国网络社会效能调查结果可以看到，社会效能的改善，依赖于解决与民众切实相关的生存和生活问题，以及缩小社会群体鸿沟。这意味着中国社会治理，应以保障和改善民生为价值取向，来创新社会治理体系，以保障社会安全、保护人们尤其是弱势群体的社会利益及利益表达权利、促进社会公平正义。基于民生的中国社会治理体系构建主要包括：

### **1、建立多元主体参与的社会治理格局**

中国传统社会结构式有政府主导的，公众社会发育程度很低，这样的社会结构导致了政府高度集权的社会管理体制。随着经济结构和社会结构的转型，公众的社会需求日益多样化，导致政府无法全面提供公共产品和服务；同时社会发展形成了多元化的利益群体，拥有社会主流舆论的社会群体掌握着社会资源和话语权，从而影响了政府提供公共产品与服务的公正性和平等性。因此社会治理不仅依赖于政府管理，更需要社会组织的参与，来保障公共产品与服务提供的全面性以及公正性和平等性。在网络社会中，中国应该向美国学习的三点就是：第一、公共合作组织；第二、社会化；第三、各个层面之间的协同能力。这是我们目前互联网社会的短板，却也是一个基本内容。所以，社会治理应形成政府主导，多方社会组织和居民参与的治理格局。

一方面，政府应积极培育社会组织，搭建与民众建立沟通桥梁。中国当前的社会组织发展还较缓慢，政府应采取税收优惠政策和财政补贴对社会组织进行支持。同时，应放宽社会组织活动领域限制，支持为弱势群体服务的经济合作组织和利益表达组织，从而改善民生。另一方面，要引导公民参与社会治理，维护和保障公民的合法权益和根本利益。当前中国公众参与社会治理程度还较低，需要政府完善公民参与社会治理的制度规范、培育公众参与社会治理的主观意识、创新公众参与社会治理的组织制度。

### **2、创新化解社会矛盾体制**

中国社会发展形成了新的社会矛盾，而这些矛盾的基本根源在于民生问题。具体表现有收入分配不均导致低收入群体对基本社会保障以及收入

公正分配的利益诉求；社会事业发展失衡导致民众对教育、文化、卫生、体育等公共服务的利益诉求；户籍制度导致流动人口对享有当地市民生活待遇的利益诉求等。这些矛盾的解决依赖于政府对现有社会体制改革与创新。

政府应健全重大决策社会稳定风险评估机制、行政复议案件审理机制、及时解决民众合理诉求机制，来创新有效预防和化解社会矛盾体制。而化解社会矛盾体制更深层次的解决之道还在于政府积极推进财政转移支付制度、社会保障与社会福利制度、户籍制度等各项制度改革和创新。

### 3、健全公共安全体系

当前中国社会面临着前所未有的多层面、多领域、多元的社会安全问题，突出表现为大规模群体性事件频发、食品药品安全事件屡禁不止、安全生产事故不断出现、诈骗事件层出不穷、社会戾气浓重、暴力恐怖事件不断抬头。这些安全问题极大地阻碍了中国发展社会效能的提升，迫切需要政府建立完善的社会治安防控、食品药品监管、安全生产管理、防灾减灾救灾、网络和信息安全体系。

此外，随着信息技术的发展，保障公共安全并不是相关部门的简单联合，更需要政府部门将信息传播统筹在内，根据信息传播范围和效果，对安全事件进行风险评估并调整应急预案，建设立体化、动态化的公共安全体系。

当我们透过网络社会去观察效能指数和中国社会的时候，可以预见互联网正在走向治理的舞台，在公共安全体系领域，我们是对其有所期待的，无论是多元机构的参与还是各个集体之间存在的权力依赖，都将改变我们原本的治理理念。但是不管是中央和地方，采取网络法制化的治理手段本身需要更加法制化和透明化。

## 三、上海市实现创新社会治理的对策

2014年度中国网络社会发展效能指数报告》显示上海市社会效能总指数位于北上广之首，呈现较好的正效能。然而上海作为全国人口最多的特点城市，其城市发展过程中还存在许多问题，本文认为应从以下几个方面的建设来实现创新社会治理：

### 1、加强基层建设，满足民众公共服务需求

上海市在城市发展中，城乡布局发生了巨大变化，中心城边界不断外扩，城郊结合形成了多种社区形态，远郊则呈现空心化现象。这些现象导致公共服务严重不足，这迫切要求上海市立足基层实际创新社会治理。2014年上海市委将“创新社会治理、加强基层建设”列为一号调研课题，调研发现上海市政府公共服务和管理在局部范围和领域“缺位”现象严重，社区共治和自治水平不高、基层社会动员能力不强。

目前上海市已出台“1+6”文件，包括《关于进一步创新社会治理加强基层建设的意见》以及深化街道体制改革、完善居民区治理体系、完善

村级治理体系、深化拓展网格化管理提升城市综合管理效能、组织引导社会力量参与社区治理、社区工作者管理办法等6个配套文件，以解决街道机制体制、基层队伍力量建设、管理执法等治理资源配置、基层组织基本经费“托底”保障等突出问题。上述意见和文件还有待实践的检验，现阶段政府应鼓励和推进基层社会治理创新实践，为理论研究提供实证经验支持；其次，还应建立基层建设的公共服务的考核评价体系，以考察上海市社会治理的效果；并根据效果对基层建设实施方案进行不断的调整。

## **2、加强民生保障体系建设，保障和改善民生**

目前上海民生问题突出的表现为高物价、高房价、医疗费用负担重、结构性失业严重、贫富差距大、养老设施和服务不足、社区环境差等问题。因此，上海市政府应运用市场调节和政府调控机制来稳定市场价格，并完善应对物价上涨的民生保障机制；有序扩大保障性住房覆盖面，完善大型居住社区周边配套服务；针对大学生群体和残障就业困难群体实施政策导向，为其创造就业机会；加快公立医院体制综合改革，并推动医疗护理和养老相结合；推进收入分配体制改革，完善社会保障体系。

## **3、完善城市安全保障体系，维护社会稳定**

“2014.12.31”上海市踩踏事件说明了上海市现有的城市安全保障体系还存在许多问题，表现为政府对城市发展和安全风险评估不足、组织保障体系存在体制性缺陷、多层次安全保障力量配置不足等。这一方面依赖于政府完善城市空间布局，充分考虑城市重点区域的承载力，以完善施政设施建设；另一方面要加强安保体系建设，建立完善的安保监控体系，制定科学的安保流程，并加强安保队伍建设。

# 城市治理与国家竞争力 ——兼谈上海如何建成现代化国际大都市

复旦大学城市经济研究所 周伟林

目前，全球经济正在发生着深刻的变化，而城市治理的状况如何将直接与国家竞争力有关。本次城市子论坛邀请到六位嘉宾，都是在城市研究领域资深的学者。以下是各位发言精萃——

1、针对上海到 2040 年、2050 年要达成全球城市的目标，上海财大张学良教授提出不妨从上海和长三角群联系的角度来看全球城市应该怎么建设。今天上海的 GDP 已经是 2.5 万亿，但经济总量并非唯一的，重要的是信息流、资金流、技术流等流量的增长以及对各种流量的控制力，提升全球资源配置能力。长三角的 GDP 是 12.9 万亿人民币，等于 2 万亿美元。全球城市和全球城市区域之间在未来 10 年、20 年、30 年有什么样的内在联系？涉及到城市与城市之间的关系、人与城市的关系，人与人之间的关系。

全球城市和全球城市区域的建设，要体现城与城的协同，不同等级的城市在同一个地理区域是有好处的。它们之间靠什么联动呢？第一是信息化，第二是同城化。信息化的广泛应用已经渗透到城市和城市群生活的方方面面，2050 年的上海应该是智慧型城市，体现为人与人、人与城市的融合，包括交通出行的同城化、产业布局的同城化。在一个由严格的行政体系转向网络化的全球区域体系中，城市的人口容量以及质量，应该是放在全球城市区域里面来考虑，以 6000 多平方公里限定上海是远远不够了。从治理层面上讲，解决交通出行、就业同城化问题，上海应该和周边地区共同承担全球城市的建设。

2、上海已经成为重要的国际投资地，10 年前上海排在 190 名，现在排在 11 名。接下来的 10 年，上海将更有吸引力。那么，是什么让上海变得不同？毕马威房地产咨询董事长 Stephen Barter 认为，一个城市在国际上要更具竞争力，需要一种对这个地方的感觉，这很重要。我们看一个城市的竞争力，有几个评估标准：劳动力的供应量；互联互通性，在城市内部及与其他国家的互联互通是不是便捷，资讯发不发达，包括信息的可得性、贸易的便捷性、合同的可靠性、法制的水平；好的治理，即机构实力和决策者的行为，要看领导力和标准（包括中央和地方政府、公司董事会的领导能力，行业协会是不是有促进作用，还有就是个人行为的表现），城市领导人不是被教出来的，他们应该有很好的学习能力；生活质量，是不是大家最想过来的地方，这反映了公共健康质量、教育和文化方面的质量。最好的试金石就是城市的活力。比如伦敦，它已有几百年的发展历史，遇到过各种问题，但它总能克服这些问题而得到发展。像上海也有试金石，看它是不是有这种弹性。

城市主要是大家会面的地方，人们在这里生活、工作、娱乐，所以城市必须管理起来，目的是让它成为大家愿意来的地方。究竟是什么愿意让人们留下来？在国际层面，大家是不是愿意过来？还得说服家庭。那么，如何创建对一个地方的感觉？人们普遍的直觉往往从建筑开始，建筑的样子，建筑带来的价值观，考虑到建筑的空间，就是生活的空间，通用的方法就是从公共空间进入，街道、广场，然后再看私人的住宅，因为广场和街道比建筑持续时间更长，以后更新的成本也更加昂贵，所以公共空间需要长时间定义。那么，上海的情况如何呢？人们都有这样的印象：上海是一座现代的城市，与国际有着紧密的联系，吸引到了高素质的人才，技术会改变我们的生活。但是怎样有效地保留城市中的历史区域，维护上海元素，解决房价高企、交通拥堵、空气污染，以及来自于其他城市的竞争，上海有必须要解决的诸多挑战。对于上海治理的挑战，就是城市的弹性是否能够继续吸引人才。

3、美国克拉克大学 Junfu Zhang 教授提出要建设智慧城市，他讲了美国两个城市的例子，分析怎样用 Smart phones，用互联网的技术来改善城市的治理。一个是旧金山的 SFpark。SFpark 的思路是解决在城里停车的困境。大城市市中心拥堵的原因是很多人在市中心来回开，因为他在寻找停车的地方。在美国的城市停车无非是两种方法，一种是去收费的停车场，一种是停在街上。停在街上并不是免费的，且有一个不小的差价，如果将车停进收费停车场，进去就收 12 美元，过半小时加 6 美元。街边停车的价钱呢？在波士顿的街边一小时是 1.25 美元。因为在街边停车可以省几块钱，所以很多人在街上找停车的位置——有 30% 到 40% 街上的车子在来回转。SFpark 做的是在每一个车位埋上一根线，可以知道有没有车在那里停，驾车者用 APP 可以看到哪些地方有车了，价格是多少，附近停车场里面还有没有位置，这为大家提供了信息以便迅速做出决定，而不是来回兜寻找停车位。现在在街上转来转去找车位的人少了许多。还有波士顿的例子，叫 Citizens Connect，成了市政府的耳目，如果市民看到街上有路灯坏了没人修，或者一个房子不打理，周围的草不剪，用智能手机照个相传到市政府，专门有人汇集这些信息，发现和解决这些问题。其实上海也在做一些大数据的事情，有一个上海发布的微信、微博，还有政府信息公开的一些做法，这方面还可以做很多。

4、新加坡国立大学 Wen-Chi Liao 教授与大家分享了新加坡在全球化以及城市建设方面的经验。新加坡建国以来不断追求国际化，这与新加坡的资源状况有关。全球城市重要的是人文荟萃，是吸收全世界精英智慧的地方，是全球经济的中心，能够对全球经济产生相当大的影响力，而这样容易造成社会分化的威胁，因为任何国家都有相对弱势的族群，他们比较容易受到伤害，我们怎么去保护他们？这是作为一个小岛城市必须谨慎的地方。新加坡的城市治理是强化竞争优势，基本上是通过创新——观念、技术的创新来提升国家竞争力，创造适合的环境，防范对本地产生负面的



冲击。如果想要持续保持全球化的竞争力，就必须吸引人才，留住人才，而这需要营造生活的品质。新加坡是一个花园城市，注重社区公园的建设，建起全岛的联络网，使绿色成为人民生活中随手可得的东西。新加坡的另一个成就是在节能减排方面，在国际上处于领先地位。政府在 2013 年提出了节能法，2014 年提出了绿建筑的管理法，新建筑有标准，同时让旧建筑也达到绿建筑的标准，这样，绿建筑标准是逐年提升的。新加坡 85% 居民住的是组屋，并在这上面不断地翻新、重建，保持了很好的环境。李光耀先生的理念，就是国民要有自己的房子，有好的生活环境。如果不是所有的人都能够有干净的环境，最后会产生社会分化，就不能使得所有的家庭都愿意让他们的下一代去守护整个社会，所以要创造好的环境让整个社会共享。

5、香港大学城市研究及城市规划中心主任赵丽霞教授介绍了香港住宅方面的管理制度。住房是大城市非常重要的组成部分，它影响人们的生活质量，影响城市竞争力。对比住宅政策及相关的治理方法，是公共部门还是私营部门，是政府主导的还是市场主导的？哪一种安排更有效率？香港可以说是自由经济，在住宅的消费系统中，是市场主导的，政府允许市场做决定，因此制造商、开发商、买家都有自己的决定。香港土地属于政府拥有，政府在政策方面占主导作用，银行也扮演着重要的角色。在其他方面有需要的話，政府会有干预，但总的来说是市场说了算。“公屋制度”解决了香港 30% 以上人口的居住问题。建造都是外包给建造商的，政府只是负责供应，好处在于政府卖经适房的时候，生成的利润可以用它来补贴公租房。如果看一下治理的问题，廉租房主要是由政府提供的，实际上就参与者而言，可以看到这样的组织架构，实际上都是非官员，包括经济学家、会计等等社区的人员，还有政治相关利益的组织，他们也是被任命到董事会的。这么一个开放式的治理结构，香港的公租房质量非常好，设施非常全面。在私营部分，可以看到财务部提供一些干预的措施，住宅部会监控整个市场住宅状况，这部分有干预，在香港是不控制利率的，因为港元是盯住美元的。

对于大陆来说，政府的是角色不一样的。在满足人们需求方面，哪一个方式最有效率？政府直接提供公租房，保证了住宅的供应，中国政府是促进住宅私有化的，因此给人们带来资产增值的保证，就是你买了之后，随着经济的发展，资产在增值，大家老了之后，你手里的资产就是升值的可以保证老了的福利。当然还可以有保险、退休金等其他相关的安排。

6、华东师范大学宁越敏教授则从空气质量着手讨论城市的治理，他做了一个关于中国城市空气质量的时间和空间的分析。根据 2014 年环保部公布的数据计算两个值，第一是污染率，即根据空气污染指数划分计算出空气质量受污染天数的比重。目前中国严重污染的城市主要位于华北平原、渭河平原，包括长江若干个城市，还有乌鲁木齐等等；空气质量较好的有东南沿海和云贵高原（相对来说工业规模不大），可见中国城市受污

染的情况有非常明显的南北差异。第二项指标计算 161 座城市空气质量指数的一个平均值。茂名、海口、三亚三个城市为优，沿海大多数城市是良好，污染城市是 49 座，华北平原属于空气污染最严重的城市。

其中的影响因素有哪些呢？中国近 20 年快速的工业化和城市化进程，是造成空气污染的主要原因。能源结构主要以煤炭为主（2012 年是 66.6%），煤炭占比重过高乃长期现象，这导致了空气污染在短时间内难以解决。除了煤炭，其他容易导致污染排放的工业部门是重要的污染源。关于 PM2.5 的来源，有机动车、扬尘（主要是建筑扬尘）的影响。还有其他的因素，比如地形、地貌，四川盆地是一个典型的例子；季节、气候的因素，冬季中国城市的污染最严重，北方地区的雾霾吹向南方，到了夏季，盛行海上的东南风，所以空气质量最好。还有政治因素，比如说 APEC 期间，相对来说北京那几天天气是比较好的。可见中国城市的环境问题十分突出，空气状况是全国性污染，并呈现北高南低的空间格局。目前处在一个不可持续的状况，通过近几年对环境污染的治理，不可持续状况开始逐渐向弱不可持续状况倾斜。

# 公共卫生安全与城市可持续性发展

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城市是人口、产业、财富高度聚集的地方，是现代社会经济最集中、最活跃的核心地域，是现代社会生活和生产的主要场所。城市高速发展的同时，也面临着空前的安全问题的挑战。自然灾害频度和强度的增加，各类突发公共卫生事件以及生物恐怖主义的威胁，对城市预防及应对各类突发公共卫生事件的能力提出了新的要求。

日益提高的城市地位对城市公共卫生安全的要求与日俱增。日本东京地铁毒气案、2001年美国“10.11”事件、2003年中国等地的SARS流行、2005年7月伦敦系统爆炸案，以及2014年西非四国的Ebola、2015年的MERS疫情都提醒人们，全球进入了突发公共卫生事件高发期，突发公共卫生事件的发生几乎是不可避免的。关注城市公共安全、开展城市快速发展下人突发公共卫生应对策略的研究尤为重要。

撇开地震、海啸等自然灾害而言，城市公共安全水平受到政治、经济、社会、文化等多因素的综合影响，而拥有上千万人口规模的特大城市，必将面临着更加严峻的安全挑战，尤其是上海这样的特大城市，具有人口多、密度高、高楼多、产业多和体量大等典型特征，势必形成更加严峻的社会治安安全、公共卫生安全、消防安全、电梯安全、城市交通安全、能源安全、化学危险品安全、恐怖安全等方面的压力和挑战。本文将侧重论述公共卫生安全与城市可持续性发展的关系。

## 一、城市公共安全与公共安全体系

### 1. 城市公共安全管理范围

城市安全是指城市在生态环境、经济、社会、文化、人体健康以及资源供给等方面保持的一种动态稳定和对灾害的一种抵御能力。城市安全是城市可持续发展的必要条件，没有城市经济、社会与生态环境的稳定与安全，就不可能有城市的可持续性发展。

突发公共事件是指突然发生，造成或者可能造成重大人员伤亡、财产损失、生态环境破坏和严重社会危害，危及公共安全的紧急事件。根据突发公共事件的发生过程、性质和机制，可分为自然灾害、事故灾害、公共卫生事件和社会安全事件四类。如气候性自然灾害和复合性自然灾害、火灾、有毒气体泄露、核泄露、交通事故和传染病暴发、爆炸、谋杀等。

城市公共安全管理的基本范围基本定位于生产安全、公共安全、食品安全和公共卫生安全四个方面。

### 2. 城市公共安全体系

城市公共安全体系主要有两方面组成，一方面是日常管理体系，处理

日常易于发生的城市安全问题，另一方面是危机处理系统，主要应对、处理突发性危机事件和相应的公共安全问题。只有把城市日常安全管理与危险处理有机结合起来，这样才能建立完善的、能够保障城市安全的公共安全体系。

#### (1) 城市公共安全日常管理体系

公共安全日常管理体系是在公共安全事件发生前，由政府管理部门、相关社会组织和市民共同进行的公共安全事件预防、化解的一个有机整体，由组织管理、危险源控制管理、目标监测、教育培训和救援保障等五大系统组成。

#### (2) 城市公共安全危机处理体系

城市公共安全危机处理体系是指公共安全事件发生后，由日常管理体系转入应急、救援、恢复等一系列行动的统称。该体系应包括：应急指挥系统、启动信息发布平台、应急救援队伍、善后处置等。

## 二、城市公共卫生安全与可持续性发展

### 1. 突发公共卫生事件

随着我国经济的发展和社会的进步，居民平均活动空间日益拓展，居民聚集性和移动性迅速增加。这种社会活动形式的变化，对城市经济发展和社会进步产生重大的推进作用，但从公共卫生角度来看，这种社会活动形式的变迁，使传染性疾病发生和蔓延的危险性成为很严重的问题。特别是在人口流动性大、人口密度大的城市，更容易发生突发性公共卫生事件。突发公共卫生事件是指突然发生、造成或者可能造成社会公众健康严重损害的重大传染病疫情、群体性不明原因疾病、重大食物和职业中毒以及其他影响公众健康的事件。突发事件具有突发性，是突如其来的，一般来讲是不易预测的事件；它具有公共卫生的属性，针对的不是特定的人，而是不特定的社会群体；突发事件对公众健康的损害和影响要达到一定的程度，即事件已经对社会公众健康造成严重损害，或从发展趋势看，可能对公众健康造成严重影响。城市人口密度大、流动人口多，导致突发公共卫生事件涉及范围广，损失巨大，常引起社会惊慌，危害严重。突发公共卫生事件常与违法行为、违章操作、责任心不强等有直接关系。目前全球突发公共卫生事件表现出了规模大、损失严重、影响广泛、关注程度高、原因复杂，以及新发传染病不断涌现等特点。

### 2. 城市公共安全与可持续性发展之间的关系

城市是一个高度集约化的社会，各个组成部分之间密切联系，相互影响。必须正确处理人与自然的关系，确保城市公共安全，为城市发展提供良好的资源和环境条件，才能实现城市社会经济的稳步、健康发展。

#### (1) 城市公共安全是城市可持续发展的基本条件

随着全球人口、资源和环境问题的日益突出，城市的可持续性发展已成为全世界共同关注的问题。城市作为人口高度密集的地区，是人们从事

经济、文化乃至政治活动最为频繁的重要场所，也是人类对自然生态环境破坏较为严重的区域。可持续发展的核心是协调人与自然环境、资源之间的关系，缓解它们之间的矛盾，减少自然环境对人的负面效应，在满足当代人需要的同时，不危及后代人的利益。

### (2) 城市公共卫生安全事件与城市发展息息相关

城市人口居住拥挤，交流频繁，一旦有传染病疫情发生，极易在人群中快速传播，而现代交通工具的普及进一步加快了人口流动速度和活动范围，促使传染病能够迅速地在社会的各个角落蔓延，从而造成极大的社会影响和经济损失。从社会发展的进程来看，传染病依然是发展中国家人群健康极为严重的疾病负担。除了传统的传染病暴发和传播的因素外，人群密度和长途航班密度的增加均促进了城市传染病的暴发和流行。人群对于传染病直接和间接的接触必然加速传染病的流行，而长途航班增加了病例输入和输出的危险性，如 SARS 和 MERS 等呼吸道传染病。对于上海这样的国际化大都市来讲，经济发展快、人口流动大，进出港人口多，增加了传染病输入、输出的风险和应对压力。此外，伴随着石油工业、采矿业兴起，大量有毒、有害化学品以及农药被合成或生产。我国是化学品生产、使用、进出口和消费大国，城市工业化的加速推进，一定程度上使得这些有毒、有害化学产品和农药通过多种途径流入城市，从而增加了城市突发公共卫生事件的潜在隐患。

城市是社会生产中的核心地带，信息传播快，社会生活关联性强，一旦发生突发公共卫生事件，必然会在短时间内对社会生活秩序造成直接或间接的影响，造成不可预估的经济损失，如果不能有效地干预和控制，甚至将导致社会危机或政治动乱。

### (3) 食品安全惠及百姓，牵动城市经济与发展

食品安全涉及到普通百姓的切身利益。食品保障受到食品安全性、食品供给量以及居民的个人行为等方面的共同影响。城市人口密度大，食品的日常消费量很大，而且绝大部分要由市场来供应。如果市场上销售的食品安全不能保证，城市居民在信息不对称的情况下很容易买到劣质、不安全的食品，对城市居民的生命财产安全构成极大的威胁。此外，食品在人们日常消费中所占比重大，解决好食品质量卫生安全问题，有利于拉动内需，促进消费等经济政策顺利实施。食品发展阶段分为生存、营养和安全阶段，我们正处于第三阶段。我国食品安全监管由于其自身的特点存在诸多问题，包括其特殊性、复杂性和社会性。特殊性是由于中华民族文化决定，复杂性指中国食品品种多、范围广、数量大，社会性是指食品安全问题为一个专业性的问题，但越来越成为社会关注的焦点，引起专业和非专业人士的共同关注。解决好食品质量卫生安全问题，不仅关系到城市食品工业本身的发展，甚至影响城市经济的可持续性发展。在我国的很多城市，食品工业已成为当地的支柱产业，食品工业的发展对实现城市经济可持续性发展具有十分重要的意义。因此，食品的生产、加工必须做到以人为本，

切实解决好食品质量卫生安全问题。

#### (4) 建立城市公共安全体系是城市可持续发展的紧迫要求

2003年SARS的暴发对我国社会带来了史无前例的冲击，也使人们认识到建立公共安全体系的紧迫性，也使人们深刻认识到现代都市的脆弱，城市危机随时可能发生，突发事件可能会迅速成为灾难。要降低城市的风险，提高城市的危机承受能力，必须重新审视我们的城市公共安全政策，构建政府危机管理机制，提高政府的危机管理能力。我国港澳地区，将突发公共卫生事件的应急队伍和应急管理纳入基本公共卫生工作，依靠合理的公共卫生体系和严格依法实施，取得了良好的效果。日本福岛核泄漏事件后，政府通过强制的居民撤离机制，有效减少了突发事件对居民危害，同时通过有效的健康教育、心理干预、人群筛查、信息公开等手段增加民众对整个事件处理控制的参与度，有效地降低了事件的影响和危险。

### 三、城市公共卫生安全事件的应对

城市公共卫生安全事件直接关系到公众的健康、经济的发展和社会的安定，并日益成为社会普遍关注的热点问题，其防控能力已成为评价一个国家政府政绩和社会进步程度的重要标志。行之有效的城市公共卫生安全事件的应对体系是确保在发生严重危害公众健康的公共卫生事件时快速反应、正确决策、果断处理的关键，能够最大程度地保障人们健康、经济建设、社会稳定和国家安全。

#### 1. 我国城市公共卫生体系存在的主要问题

SARS以来，我国的公共卫生体系建设取得了显著的成绩，但我国城市公共卫生安全体系的发展仍滞后于经济和其他社会事业的发展，卫生医疗服务体系与人民日益增长的健康需求不相适应的矛盾还相当突出，尤其是上海这样人口多、老龄化问题突出的超大城市。

第一，公共卫生体系不健全，重大疾病预防控制任务艰巨。我国卫生工作的基本方针是坚持预防为主，预防控制疾病的发生是卫生工作的首要任务。

第二，应对突发公共卫生事件的机制还不健全。突发公共卫生事件的发生，除了传染病传播蔓延以外，还包括突发自然灾害、重大生产安全事故，以及重大食物中毒、职业中毒等，这些都需要我们建立健全城市突发公共卫生事件处置机制，提高城市应对公共卫生安全危机的能力。

第三，城市医疗服务体系不适应群众的健康需求。我国的城市医疗服务体系虽有很大的发展，但与人民群众的健康需求相比，还有很大差距，看病难、看病贵的问题还没有根本得到解决。与此同时，我国很多大中城市都面临着人口老龄化不断上升的问题，导致慢性病患病率显著上升，负担逐渐加重。随着人群期望寿命增加，慢性病的患病率逐渐上升，健康期望寿命则不断丧失。传统的卫生系统，关注急性发病状态，以病人急性治疗为中心，无法应对与日俱增的老年健康服务需求和慢性病管理需求。

第四，城市医疗卫生管理体制与人民健康需求不适应。我国不少城市的医疗卫生资源分别隶属于不同的部门、行业和企业，城市卫生部门很难对整个城市的医疗卫生资源实施有效监管。

## 2. 加快城市卫生体系建设的具体措施

第一，加强城市公共卫生机构的基础设施建设，完善公共卫生服务的保障机制。城市公共卫生体系基本设施建设是公共卫生体系建设的基础，建立稳定的公共卫生服务投入和增长机制，逐步提高公共卫生投入占卫生总费用的比重。

第二，完善突发公共卫生事件应急处置机制，加强卫生应急处置保障。SARS以后，我国许多城市根据国家《突发公共卫生事件应急条例》的要求，相继成立了卫生应急处理协调机构，明确职责，建章立制，组织协调，规范应急处理工作。在此基础上，需进一步建立城市医疗卫生应急物质储备、保障和培训机制，保障突发公共事件的应急处置资源调配。

第三，加强重大传染病防治，重点控制艾滋病、病毒性肝炎、结核病等城市高发的重大传染病。

第四，健全突发事件应急应对网络。建立和完善城市公共卫生临床中心传染病救治网络指挥中心，与城市应急指挥中心联网，实现突发传染病病情监测、预警、救治本体化管理，进一步提升城市传染病疫情控制和救治能力。

第五，深化城市医疗体制改革试点，切实加强医院管理，提高医疗服务质量。2009年国家医改以来，城市医疗服务体系改革取得了一些进展，但从整体上看，成效不明显，存在不少突出矛盾和问题，如：公立医院运行机制存在问题，公益性没有得到充分体现；社会资源进入医疗服务领域不畅，发展不快；医疗服务监管薄弱，社区卫生服务发展缓慢，群众看病难、看病贵的问题仍然突出。

第六，在上海等老龄化程度高的特大城市，需增加财政对社区卫生服务的支持力度，完善现有的社区卫生服务体系，扩大医疗保障的覆盖范围，以应对老年人对医疗卫生服务的迫切需要和对卫生保健的可及性。

在全球化快速发展的环境下，我们必须用全球化的视野去思考城市安全问题：一是危机会在全球范围内发生；二是危机扩散的全球化；三是危机预警和应对的全球化。随着社会、经济生活联系日益全球化，我们处在一个更加开放的环境中，我国的经济越来越多地融入了世界，国际交往更加频繁。上海是中国经济的前沿，我国深入改革开放的试验区，正处于一个崭新的起点上。上海同时也是全球经济、文化交流的热点，是中国对外发展的重要门户，城市的稳定、安全与可持续发展显得尤为重要。对外贸易的快速发展，增加了口岸卫生的压力，强化监测防止传染病疫情的输入是上海融入全球化经济发展过程中面临的新挑战，而防止国内疫情的输出又是上海这一国际化大都市、国际交流重要口岸不容懈怠的职责。与此同时，在城市经济的快速腾飞的过程中，上海日益增加的人口密度问题给传

染病的快速传播带来有利条件，而城市人口老龄化问题不断加剧，给城市发展、城市卫生服务体系带来了新的问题与挑战。

从更广泛的意义上讲，城市公共安全还包括贫富分化加剧、就业压力所导致的心理安全、社会矛盾激化、社会治安状况恶化等社会安全危机。同时，年龄结构的变化也会引发不同年龄的人口群体之间在分享社会发展成果方面的矛盾冲突。

综上所述，城市发展是社会进步的表现，城市安全是城市发展的基石。要提高城市公共安全系数，不仅有赖于城市管理者的主观努力和科学决策，也有赖于市民的安全意识和合作精神的培养，以及可持续的生产和生活方式，公平和谐的社会制度安排。



# 金融创新和制度建设应对巨灾风险

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## 一、溯本追源减少巨灾风险影响

中国是一个巨灾频发的国家，70%的城市暴露在洪水、台风和地震等自然灾害的侵袭下。巨灾对经济造成的巨大损失极大程度拖累了经济发展进程和城市化的轨迹，而合理的风险管理可以从源头开始减少巨灾风险的影响。

### 人群参与从源头减少巨灾风险

巨灾的风险管理过程，应该引入人们参与决策。原因有二：

第一，巨灾问题属于灾害问题，而灾害自身是一个地区性问题，譬如地震灾害中85-90%的受害者均由临近邻居等救助脱困，人群参与先天地推进了灾害发生后的救援进度；灾害发生当地的人们了解各类环境，鼓励人们参与到灾后问题解决的讨论中，尤其是跳脱出单一社区模式，有助于减缓巨灾风险。

第二，明确风险管理人群参与的主次，自上而下地应对救灾；确保人群的充分参与，调动内部和外部的参与者有机互动，上下结合。

## 二、运用金融手段应对巨灾风险

在应对巨灾风险的过程中，传统的选择是巨灾保险，但在这种选择中，实践出真知，我们也逐渐摸索出了新方法、开发了新思路、开拓了新市场、使用了新手段，利用了新渠道。以下做具体介绍：

### 新方法：指数保险量化巨灾风险

指数保险是指用数量计算的方法把所谓的巨灾应对策略进行量化，以减少不必要的成本支出。指数保险的优点在于根据指数作为触发点，可以减少传统保险的道德风险和逆向选择，另外，巨灾发生以后可以不用根据实际损失迅速赔付。目前大部分巨灾保险制度设计都采用指数赔付机制。指数模型的编制过程中，首先要剔除复杂因素，保证数据可得性和完整性，从整个理念出发对自然灾害及其损失的相关数据进行分析，以得到不同地区对抗自然灾害的脆弱性程度，灾害种类、可能性、风险敞口等。

立足于这些数据基础，建立参数型保险结算模式，不仅可以提醒人群对高风险概率标的增加投保，并且对保险方来说也无需一一具体定损，采用相关指标性参数即可定损，加快赔付效率。可惜的是，参数型保险目前适用性还较低，其有效性依赖于前期相关参数针对某类特定灾害和标的损失结果数据的采集效率，并对指标的关联性大小，参数层级和对应程度，依然在考虑和评估之中。

### 新思路：商业保险分散和分层及巨灾证券化

第一，商业保险针对巨灾的分散机制，包括直接保险、再保险、巨灾证券化等。分散机制的建立需要测算作为基础，这主要是指根据全国不同区域可能发生的灾害事件损失情况做出统计和评估，做好试点。

第二，分层结构是应对巨灾保险时经过国际实践的一种成熟经验。不同层级承担不同功能，设立不同风险承担比例，订立不同的触发条件。

第三，巨灾证券化作为对于传统风险替代的新型风险分散模式，资本通过证券化进入市场承担风险，主要经历三个阶段：海外设立海外发行；海外设立国内发行；国内设立国内发行。

#### **新市场：保险资产证券化助力巨灾保险发展**

我国多层次资本市场的组成，包括股票市场（主板、创业板）、场内金融期货市场、区域性股权市场，私募市场等。在私募市场的报价系统中，保险公司是重要的参与者，报价系统为保险资产证券化提供了宝贵的舞台。保险公司可以使用其资金在私募市场的报价系统中参与投资，创设产品（比如创设巨灾保险证券化的相关产品），代理客户，展示项目等。

我国的巨灾保险资产证券化进程已经在逐步推进，中国证券业协会与保险学会签署了相关协议，并建立专门团队研究，下一步加强实验和推广正在计划中。

#### **新手段：远期合约和税收资金池融资**

考虑到不同国家的巨灾风险不同，由此对人们长寿风险造成的联动变化可以假定不同国家间的死亡率不同，并且经过数据观察，这类死亡率之间存在方向性的对应。由此，可以用一个国家的死亡率数据，推测另外一个国家的死亡率数据。具体的融资操作形式如下：通过合同把某人在某个国家的收益冲抵另一个国家出现的损失，相当于远期合同，使风险敞口与实际情况相反，形成风险对冲。

另一种融资方式则是成立一个在税收上面可供使用的资金池。保险公司无需每年年末向税务机关支付税款，可以在某个时间结束之后，或者在某个合同期结束之后向税务机关进行税款支付。如果在一段长期期限比如二十年内出现巨灾需要进行巨额赔付，在某个设定的死亡率临界点（比如0.9%），如果发生相关风险则可实现免税，若无则照常支付税收。

#### **新渠道：互联网保险场景推动巨灾保险发展**

互联网+巨灾保险的定义是什么？是由政府保险、证券等机构利用互联网完善巨灾保障组织管理，为全民提供巨灾保险相关产品和信息服务的网上消费、获取等经营或运营活动，即为互联网+。目前我国开展互联网+所具备的各类条件，如良好的互联网市场，国家的高度重视，行业的发展都已经趋于成熟。

互联网+巨灾保险制度的基本架构，主要在于使用互联网所具备的大数据、云计算、信息高效流动让百姓广泛参与解决传统巨灾保险制度下政商承担模式的不可持续性问题，通过政府、民众、企业、金融机构参与新的互联网体系和业态。其根本指导思想是以消费者为根本利益。

在此模式中，五个参与主体都需各司其职。第一是政府层面，应当建立法律体系，同时作为发起人和出资人为民众购买巨灾保险保障及建立巨灾基金，发起巨灾风险分散计划，同时发布税收优惠等政策鼓励人们参与巨灾保险分散计划；第二是商业保险机构，应当创设相关产品，用保险手段加以风险分散和防护；第三是民众，民众应当自愿接受政府引导，积极参与更高补充保障额度和巨灾风险的分散计划，也可以以个人投资者身份参与巨灾债券和证券产品的投资；第四是相关辅助金融机构，主要对中小微型企业的巨灾保险风险提供保障；第五则是第三方平台，主要职责是维护日常运作的交易平台。

实践过程主要有两个方面的重点。第一个重点是政府主导，全民参与。主要分为以下几个步骤：第一、政府主导规划模式，引领出资建立一套巨灾保险基金；第二、政府出台相关惠民政策，引导鼓励公民或者社会企业参与巨灾保险分散机制；第三、建立一个日常运营体制，可以参考保险交易所类型的体制；第四、保证凡是购买了巨灾保险的灾害事故可以获得高额赔付，已经有高额赔付的 시민可以获得相关补偿。

另一个重点是市场化运作，市场化监督。市场化即公开透明地接受社会监督，通过建立巨灾保险公共信息发布平台、巨灾保险招标平台、巨灾保险交易见证平台，从而建立巨灾保险基金发布和再交易的平台及互联网防灾防损应用平台。

### 三、制度建设长久管理巨灾风险

参考周边国家和地区的巨灾风险防范经验，探索巨灾保险制度体系建设。

#### 东盟模式：巨灾恢复融资的一种新模式

高盛公司认为，再保险公司的业务模式急需改进，目前可靠性非常低，已经属于夕阳模式。除非再保险公司对他们的风险敞口进行有效检测，否则其不会愿意提供再保险方面的产品和义务。

目前东盟国家正在尝试建立一个可靠的可以承受巨灾的保护融资体系以保证其经济增长。东盟国家普遍缺乏足够的资本，无法从企业和消费者当中获得合理的保费，泰国就是其中一例，全国三大保险公司对于其态度是：不想接受泰国的业务，或者提出过高的保费，泰国监管者提出了东盟共同体基本框架，通过投资于灾前风险，减轻项目本身的负担，使价格和条件更优惠。

#### 韩国巨灾管理发展：一个案例和新制度的变迁

韩国是一个农业化国家，主要依靠家庭或者社区进行风险的分担，大型保险公司和资本市场也参与在风险的分担过程中。在巨灾来临时，政府制定规则并监督规则的执行，同时吸收巨灾带来的风险，然而法律的实施效力还很微弱。

以韩国岁月号偏航最后造成的沉船事件而言，按照合同规定保险公司

不需要负责，最后的赔付由政府主导，但由于社会舆论的影响，政府不得不迫使保险公司为这个事件买单。

以上述事件为例，可以说自从上个世纪九十年代以来，韩国事故频发，一方面是因为现代化过程被极大压缩，另外一方面则是因为整个社会对待风险还处于默认不知和选择性忽略的情况，我们通常称为非边界性 / 模糊边界性风险。风险是由事故发生的可能性乘以预期损失，可能性总是假定大于零，若预期损失无限大，相乘之后依然会导致巨灾的发生。

韩国人的风险意识不强，对于巨灾并没有严格的司法规则和惩戒体系，因此在灾害后韩国开发了全做的做法，设立新部门加强灾害教育和大灾防范教育，通过政府融资、社会出资辅助等方法推进大灾保险管理体制，自然灾害虽然没有办法控制，但法律、文化、经济、技术可以影响人们的知识态度及对待风险的行为，通过做好法律文化建设、经济建设、提升技术水平以更好地应对灾害，实现结果导向型的可持续发展巨灾保险模式。

#### **台湾保险业经验：从巨灾保险应对谈起**

以巨灾保险为例，政府的角色不仅仅限于巨灾发生的时候，更重要的是协助制定市场的规则，从台湾的实践经验中保险机构通常会在以下方面着力：

第一，保险业投入更多研究机构，公司通过和高校甚至研究机构的合作，研究灾害发生的损害大小和几率等问题；第二，通过先前在服务客户的角度建立一些损害防止机制，降低客户风险，控制公司风险；第三，提供基础的费率，通过天灾风险评估模型的建制，挖掘风险的费率所在，通过商品设计的加减费制度引导客户进行风险管理，一方面较低保险费率价格，另一方面通过再保险进行风险转移，诸如 ART 和 PPP 等另类风险转移工具。

另一方面，巨灾风险因应对策应该分三个层面来看。第一，一般商业保险可以提供给个人和企业，个人购买天灾保险的比率相对非常低，而企业有一定的风险管理诉求。一些国家或地区针对天灾提供微型保险，建立相关地震制度，如台湾、日本、纽西兰和土耳其等都建立了地震保险基金，美国设立了全国住宅洪水机制，夏威夷和佛罗里达都有相关巨灾基金，泰国和法国也有天灾保险制度；第二，以台湾在 1999 年大地震后造成的三千亿新台币经济损失分析，其中只有两百亿来自商业保险（企业承保），覆盖面相当低。不仅如此，目前台湾地震采用单一费率，只保全损，但台风和洪水风险的地区差异性很大，单一费率的普及可行性较低。因此巨灾债券的类型不建议使用参数性（容易产生计差风险），更适合使用损失填补型；第三，评估相关巨灾风险需要建立风险评估模型，通过保险中心和大学合作，针对地震保险的相关条款，建立地震、台风和洪水的评估模型，为商业天灾保险提供参考费率。

#### **上海金融保险中心建设：中国巨灾风险保障体系建立**

巨灾风险对中国而言意义重大，巨灾保险制度的建设刻不容缓。巨灾

对个人生活的影响状况和程度巨大，即巨灾不仅带来直接损失，并且带来了难以估量的间接损失。也因此，巨灾保险制度的建立意义重大。其次，建立巨灾保险制度能够很好地响应国家政治层面和市场方面的需求。

中国传统的灾害管理体制具有非常鲜明的特点，即中国发展的历史是由行政管理体制决定的：不同的灾害管理形成了不同政府管理部门，由国土资源部、水利部、地震局、海洋局、气象局等部门分割灾害管理权，在灾害发生时，由政府调动资源对口支援，却没有注重市场力量（市场承担部分 <3%），政府严格预算执行，缺乏体制机制建设，重视灾后重建，忽略灾前风险管理、灾中救助、灾后重建融资风险补偿，巨灾风险防范体系有所疏漏。

对于在上海建立金融保险中心，至少有以下三方面的重大意义：

第一，巨灾制度的建设对保险业发展有重要作用，建立巨灾保险意义重大；第二，上海具有特殊的地位，上海 2014 年提出要建设国际保险中心，其中一个支撑点是巨灾保险中心，这需要巨灾风险证券化作为基础。上海作为中国的金融中心，要素市场极为发达，立足于这个比较优势，可以利用巨灾风险证券化工具把巨灾风险在资本市场和投资人之间进行分摊，形成巨灾分散组合；第三，巨灾保险发展的外部环境需要完备的法律制度环境，理清涉及的主体和利益关系，从顶层设计入手，推动巨灾保险立法，明确各方权力义务，实现长期稳定运行。

除此之外，还应积极发挥保险交易所的作用，在多方面促进巨灾风险管理建设的发展，保险交易所可以通过各种金融工具帮助巨灾保险的建设发展；建立多方面巨灾风险承担机制，政府支持以及各方面努力才能够使巨灾保险制度更好发展；培养多种专业的不同人才，以满足各种形式保险的发展。政府应该立足于上海的金融人才聚集程度、国际化程度、市场化程度、法制化程度，抓住试验区机会为中国巨灾保险体制突破创新和保障体系建设贡献自己的力量。

# 创新生态文明发展模式，促进经济和环境协同发展

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## 一、引言

当前，生态与环境已经成为人类发展和国家竞争力的决定性因素。日益凸显的环境问题是经济发展和全球化的产物，其解决需要每一个国家的积极参与和协作配合，绿色经济与生态文明应当成为全球共识和践行标准。就中国而言，随着经济发展进入转型期，党的十八大首次提出了“五位一体”的总布局，将生态文明建设纳入中国特色社会主义事业的国家战略。十八届三中全会则进一步提出“建设美丽中国深化生态文明体制改革，加快建立生态文明制度”，“推动形成人与自然和谐发展现代化建设新格局”，彰显了中国实现环境和经济协调发展的决心。

其实生态文明的思想，中国自古有之，正所谓人法地，地法天，天法道，道法自然。中华文明延续 5000 年，生态文明思想一脉相承。然而，20 世纪的大跃进、21 世纪的工业化等活动导致了严重的环境污染，破坏了生态环境，使得中国经济的高产出伴随着低品质。当前，中国以及亚洲其他地区，都面临着以气候变化、经济振荡和社会冲突为标志的区域生态安全问题；以资源耗竭、环境污染和生态胁迫为特征的区域生态服务问题；以及以环境病加剧、适应力降低、人口超集聚为诱因的区域人群生态健康问题等三大生态风险。因而，生态文明重新提上议事日程，并放在突出地位。可见，生态文明即是人类文明发展的历史必然，也是亚洲区域可持续发展的现实要求。

## 二、内涵阐释

生态文明，以可持续发展为特征，以知识经济和生态技术为标志。其核心就是要把生态精神深深融入和全面贯穿到人的经济环境、政治环境、文化环境、社会环境建设中去，实现人和自然协调持续发展的“五位一体”新格局。生态文明建设就是要将工业文明的线性思维进行生态整合，将经济建设、政治建设、文化建设、社会建设统一在人与自然和谐的大生态框架下，将自生、竞生、共生、再生的生态规律与开拓、适应、反馈、整合的生态精神根植于新型工业化、区域城镇化、社会信息化和农业现代化的发展过程之中，推进生产高效循环、生活幸福低碳、生态绿色和谐的可持续发展。

## 三、现状分析

当前，面临着经济、人口、环境三重压力的中国，要想走上生态文明之路，仍然面临着诸多挑战。

1. 高增长、高投资、高能耗、高污染的工业发展模式，以煤炭为主的能源消费结构仍然没有改变。

化石能源的枯竭和环境污染的持续加重已经表明，这种粗放式的经济发展模式是难以持续的，向低碳经济的转型不可避免。然而在最近几十年，这种转变并不容易，因为中国的快速经济增长很大程度上依赖于高能耗和高污染。2010年，中国已经超过美国，成为世界第一大能源消耗国，但是GDP总量屈居世界第二，低于美国。虽然能耗强度和碳排放强度正在逐年降低，然而与其他国家相比，绝对值仍然过大。比如，2011年，中国的能源强度是美国的3倍，日本的5倍。这表明，中国节能减排和经济转型的任务仍然任重道远。

2. 以直接管制和行政命令为主的环保管制制度具有重大缺陷，制约了对生态文明建设的引导作用。

现行的以政府行政干预和控制为主的环保管制制度，具有重规制而轻激励、重收费而轻防治、重惩罚而轻奖励的特点。市场力量和利益机制的缺失直接导致了有令不行、有禁不止。排污标准和环境治理“一刀切”式的制度设计，忽略了不同企业间的技术差异和污染控制成本的差异，降低了环境整理政策的有效性和可行性。低额度的收费标准和罚款，使企业交纳排污费等于购买了合法的排污权，不仅没有有效规制排污企业，反而激励了对环境的破坏。此外，“末端控制”的环保模式增加了环境执法和环境治理的成本。可见，传统的以行政法令为主导的环保政策，不仅在经济上是无效率的，因为并没有考虑不同部门的具体情况，执行成本非常高；而且在环境上也是无效率的，因为并没有为企业设定减排的深层次动机。

3. 改革开放以来逐渐形成的GDP地方锦标赛和以此为基础的官员晋升制度，扭曲了地方政府行为。

以GDP驱动的评价体系，只关注经济规模的增长而不关注增长质量、能源利用效率和环境污染等，严重威胁到公众的生命健康和利益。当下，全国各地因急功近利的生产建设，造成江河湖海污染、土地荒漠化以及温室气体排放等生态环境问题，比比皆是，最为典型的便是雾霾。这种畸形的地方政策不仅扭曲了生产方式，而且还阻碍了生态观念、低碳消费、生态友好的生活方式在民众中的养成，不利于生态文化建设。

#### 四、政策建议

在推进生态文明建设中，要通过理念、制度、路径等多方面的创新，不断完善生态环境治理体系，提高生态环境治理能力。特别的，制度保障是推进生态文明建设的关键所在。本文将从以下几个方面对创新生态文明发展方式，提出一些建议：

##### 1. 加快经济结构改革，促进产业转型升级

经济转型依赖于经济结构的更新。研究表明，未来中国的结构改革可以从以下几方面开展：

首先，必须对重工业进行改革，消除过度产能、控制能源和排放密集型产品的生产，包括钢铁、橡胶和其他金属产品，发展节能减排技术等。通过严格排放标准，加快淘汰落后产能，倒逼重点行业提升产业技术水平。其次，逐步对能源消费结构进行调整。虽然由于禀赋限制，能源结构的改变无法一蹴而就，然而长期来看，必须从以煤为主导的能源结构逐步转变为清洁能源和可再生能源占比更大的能源结构，比如清洁煤、核能、水能、风能和太阳能等。再次，继续轻重工业的平衡发展。工业化应当从重工业化转型为深加工工业化和技术深化，反映了劳动密集型向资本和技术密集型产业的转变。为此，必须大力发展轻工业和高技术产业，比如通讯设备、计算机和其他设备制造业，走上以高生产率、强劳动力吸收性、低资本需求、低能耗排放为特征的新型工业化道路。最后，根据“驼峰状”的工业化发展模式，必须发展第三产业，尤其是高产的第三产业，以优化经济结构。不同地区应当采取适当的结构调整政策，根据比较优势发展工业，避免重复建设。重点培育新能源、节能环保、循环经济、节能服务等战略性新兴产业。

## 2. 引入市场机制，促进资源合理配置和低碳转型

事实证明，单靠行政力量已经不能适应环境保护与治理发展的需要，无法从根本上解决环境污染问题，必须引入市场力量，把市场机制与政府干预的有机结合，以经济诱导与惩罚约束经济主体实施环境保护行为。

具体来说，首先，必须推进能源价格的市场化进程。长期资源价格体系扭曲导致了中国经济增长过度依赖于能源消费。因此，必须加速能源产品的价格改革，使能源要素市场在资源配置中起到决定性作用。适当提高能源价格将降低能源需求，推动能源和排放密集型企业的发展节能减排技术，转变经济增长模式。其次，必须加快环境税制改革。环境税是市场机制主导的环境政策的代表，也是现今许多国家进行环境保护的重要工具。发达国家征收的环境税包括：能源税、碳税、硫税、污水税、固体废弃物税和噪音税等。这些税对可持续发展起到了重要作用，也为中国的环境税改革提供了重要借鉴。中国环境税改革应当以尽快开征碳税为起点，进而通过不断调整税率，减少扭曲，使得税收系统由次优转变为最优。最后，必须大力发展碳排放权交易市场。相比于碳税，碳排放交易虽然存在着实施成本较高，企业减排成本不易测算等问题，但其在减排效果以及运行成本方面具有相对优势。因此长期来看，建议在碳税基础上逐渐过渡到碳交易，有利于进一步降低减排成本和挖掘减排潜力。

## 3. 应用“绿色 GDP”的评价体系，引导地方政府行为

根据现代增长理论，只有技术进步以及相应的全要素生产率提高能够指引可持续发展的方向。因此，全要素生产率增长所反映出来的增长质量效应，应当被用于评估经济发展模式的转型。相关研究表明，可以通过方向距离函数（DDF）等计量方法，测算环境全要素生产率对经济增长的贡献度，作为一个适当的替代评价指标。新评价指标生动地反映了经济增长



与质量的关系，有助于引导地方政府兼顾经济与环境的协调发展，促进生态文明建设。

此外，与地方政府官员政绩考核周期短相比，生态环境保护考核的周期相对较长。因此，必须探索生态文明追踪考核制度，在官员调任后仍能追究其执政过程中的生态保护责任。

#### 4. 积极倡导生态文明行为，培育绿色生活方式

生态文明建设，不仅仅涉及生产方式的转型，也关乎生活方式的转变。首先，必须在全社会深入开展生态文明教育，大力普及和提升生态文明理念，夯实生态文明建设的基础。生态文明理念只有深入到全体社会成员的思想深处、内化为其行为准则，才能发挥其对生态文明建设行动的先导作用。其次，通过多种宣传方式和宣传活动，营造生态文明建设的浓厚氛围，广泛开展生态公益活动，促使生态文明建设成为全社会的自觉行动。最后，必须更新消费观念，优化消费结构，合理引导消费方式，鼓励消费生态产品、绿色产品，逐步形成健康文明、节约资源的消费和生活方式。

# 全球产业链视角下产业升级与环境治理的协调发展

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自 2008 年全球金融危机爆发至今，世界经济格局在缓慢复苏的过程中出现了明显的重构趋势，不论是经济增长还是消费扩张的中心，都逐渐从发达国家向新兴经济体转移——而随着新兴经济体的经济总量与收入水平的进一步提高，这一趋势必然会加速。这不仅意味着新兴经济体总体经济实力的提升，更重要的是这一趋势为新兴经济体提升其在全球价值链分工中的地位、改变参与全球治理的方式提供了历史性的机遇。对于正在积极扩大内需，寻求转变经济增长方式的我国而言，抓住这一历史机遇毫无疑问具有非同一般的意义。

出口导向的战略在过去 30 年中为我国带来了举世瞩目的经济增长，但是长期以来我国产业被锁定在全球价值链的低端，导致产业升级步履维艰，也带来了严重的资源和环境问题。随着我国的低成本优势逐渐消弭，加之资源和环境约束的不断强化，原有发展模式的可持续性受到了严重的威胁。

在全球价值链的视角下，环境治理与产业结构的升级具有密切的内在联系——更高附加值的产业链环节对应着更低的环境污染；而反过来环境治理能力的提高，以及环境标准的升级也有益于国内产业在国际市场提高竞争力。因而在产业升级的同时，因势利导增设环境标准、积极参与全球环境治理，对于提高企业和产业在价值链中的地位、改善贸易条件，保障经济可持续发展大有裨益。

在环境问题日益受到普遍关注的今天，新兴经济体的环境升级正在成为当下全球价值链研究的热点领域之一。而作为最大的发展中经济体，我国更应重视沿着全球价值链参与全球环境治理这一重要途径。为此，我们需要以全球价值链的视角下构建的新发展观为指导，分析产业升级与环境治理之间的关系，评估新的经济格局下我国在全球价值链体系中的地位现状，以及发展机遇；在此基础上提出产业升级与环境治理协调发展的合理路径。

## 一、全球价值链视角的新发展观

“全球价值链(Global Value Chain, GVC)”一直以来都是分析全球产业、贸易以及收入分配等问题的重要方法。而在 2008 年国际金融危机之后，世界经济在复苏的过程中出现了重大的变革，而 GVC 的框架为我们更好地理解世界经济格局及其变化提供了更为清晰和准确的视角，这也使得 GVC 引起了更为广泛的关注：世界贸易组织(WTO)提出了基于附加值贸易的新贸易统计数据，揭示了东亚贸易模式的新变化；世界银行(WB)则要

求在全球价值链中占据主导地位的跨国企业在增强发展中国家的贸易能力方面发挥更大的作用。其他主要国际组织如联合国贸发会议（UNCTAD）、经济合作与发展组织（OECD）和国际劳工组织（ILO）等也纷纷使用全球价值链框架来分析贸易和发展问题。

### 1. 全球价值链对世界经济格局的意义

全球价值链的分析框架可以追溯到 1985 年波特在《竞争优势》一书中提出的“价值链（Value Chain）”和“价值系统（Value System）”的概念，随后经过了“全球商品链（Global Commodity Chain）”和“全球生产网络（Global Production Network）”等发展阶段，并最终于 20 世纪 90 年代形成了现在的 GVC 的概念，成为在国际供应链和产业格局等问题上较为流行的分析框架。联合国工业发展组织出版的《工业发展报告（2002～2003）：通过创新和学习来参与竞争》中将 GVC 定义为：“在全球范围内为实现商品或服务价值而连接生产、销售、回收处理等过程的全球性跨企业网络组织，涉及从原料采集和运输、半成品和成品的生产和分销，直至最终消费和回收处理的过程。它包括所有参与者和生产销售等活动的组织及其价值利润分配，并且通过自动化的业务流程和供应商、合作伙伴以及客户的链接，以支持机构的能力和效率。”这一表述突破了企业和国界的限制，强调了 GVC 是通过各种经济活动联结在一起的企业网络的组织联结方式。

GVC 将遍布全球的企业、组织乃至消费者联接在一起形成有序的价值链条，其背后的推动力在于各个环节所形成的经济租——即由各种有形的和无形的稀缺性资源产生的可持续的收入，包括生产要素、技术、管理等等。从某种意义上讲，在 GVC 的视角下理解产业分工各环节的价值产生、收益分配、治理体系，以及产业链动态演化的关键，便在于理解全球价值链条上各环节经济租的产生，及其变化过程。Kaplinsky 和 Morris 将经济租区分为内生的和外生的两大类，其中内生经济租包括“技术经济租”、“人力资源租”、“组织—机构经济租（管理技术带来的经济租）”、“营销—品牌经济租”、“关系经济租”，以及以商业秘密和知识产权的形态存在的进入壁垒等；而外生经济租包括“自然资源经济租”、“政策经济租（政策性垄断带来的经济租）”、“基础设施经济租”、“金融租（融资便利性）”等。

价值链在不同环节所使用的要素稀缺性不同，因而获得的经济租也有所区别。以价值链增值的“微笑曲线”为参照：靠近中间的低附加值环节，如加工、装配等所使用的要素稀缺性低，因而获得的经济租也较低；而靠近两端的研发、设计金额品牌营销等环节则相反。租的分配决定了 GVC 上不同地区、不同环节、不同主体的收入分配，也在很大程度上决定了全球经济的格局。值得注意的是，资源的稀缺性并不是固定不变的：随着技术水平的不断提高，生产环节的进入壁垒不断降低，越来越多的国家有能力参与全球产业链中的低端制造环节，导致这一环节的“租”日益耗散、增加值不断降低；相反，能产生较高的“租”的领域越来越脱离具体生产

过程而转向无形的过程，如研发和营销等领域。技术或知识密集性的特征使得这些环节具有较高的进入壁垒，成为价值链中收益的重要来源。

可见，经济租的分配时时处于变化之中：已经得到的经济租会由于进入壁垒被突破而流失，而新的经济租也会不断产生。这种要素相对稀缺性，以及由此带来的经济租分配模式的变化，正是决定经济格局，以及全球产业演化的动力所在。

## 2. 全球价值链的驱动力及其治理模式

全球价值链的治理模式可以划分为“生产者驱动型”和“购买者驱动型”。前者指由生产者的投资来推动市场需求，形成全球生产供应链的垂直分工体系的价值链。在这种 GVC 中，拥有技术优势或者规模经济优势的跨国公司作为投资者，通过全球市场网络来组织各生产环节的前后向联系，最终形成生产者主导的全球生产网络体系。一般资本和技术密集型产业，如计算机、半导体和装备制造等大多属于此类，而大型跨国制造企业是这类价值链中的主导力量。购买者驱动型的价值链指拥有强大品牌优势和国内销售渠道的企业通过全球采购和贴牌加工（OEM）等生产方式组织起来的跨国商品流通网络，能够形成强大的市场需求，拉动出口导向的发展中国家的经济生产。传统的劳动密集型产业，如日用品生产等大多属于此类。

不论是生产者还是购买者驱动的价值链中，“标准”都是价值链治理的重要手段。生产者通过“标准”把生产过程和质量的相关信息传递给消费者，采购商则通过“标准”控制供应商的生产过程。“标准”实现了各种复杂信息的符号化，可以降低交易成本，使得主导企业能够较容易地进行协调整个价值链的运作。标准的制定深刻地反映出全球价值链中的权力分配关系：在全球价值链的形成过程中，主导企业把标准化的生产流程外包给劳动力成本较低的发展中国家企业。同时通过制定标准设置进入壁垒，实现对价值链的控制，把增值最多的环节牢牢控制在自己的手中。对于发展中国家的供应商来说，满足标准才能进入全球供应链，而且即使进入，也一直被锁定在价值链的低端。缺乏标准的制定权使得新兴经济体无法发挥国内市场的作用实现经济升级，也不利于全球的可持续发展，而发达国家仍然可以通过标准获得经济租。目前以国际标准组织（ISO）为代表的标准制定和管理主体中，依然以经合组织国家为主导，显示了发达经济体在现有全球价值链治理中的主导地位。

## 二、全球价值链视角下，国际贸易与环境之间的关系

随着经济全球化和国际分工的细化，我国逐渐嵌入到了全球价值链的生产网络中。但是我国出口结构中以低附加值和低技术含量的工业制成品为主，主要集中于纺织、化工、制造业等高能耗、高污染的行业。长期以来在片面追求数量增长的发展观推动下，依靠资源和劳动力要素拉动的粗放型经济模式使我国资源的循环利用效率低于发达国家，资源环境约束日

益明显。如果考虑到环境的外部性，中国生产并出口的产品所获得的附加值相对发达国家更低。在资源短缺和环境容量的严重制约下，我国对外贸易的可持续发展严重受阻。

提高对外贸易的可持续发展迫在眉睫，而改变这种状况的有效方式是向价值链的高端环节升级。不同驱动力机制下的全球价值链的升级模式存在差别，因此全面地分析环境要素在不同 GVC 中的作用，及其与产业升级之间的交互关系，对于有效推进不同行业的转型升级、提高可持续性有着重要的意义。

### 1. 环境要素对全球价值链构成的影响

环境要素是影响 GVC 构成的重要决定因素之一，对全球产业布局、收入分配以及国际贸易都有着重要的影响。发达国家凭借其在资本和技术上的优势以及对世界终端市场的掌握，不断地进行新产品的开发和设计，而将标准化的生产环节通过 FDI 或 OEM 的方式转移到发展中国家。在这个过程中，发展中国家丰裕的要素，如劳动力、自然资源等，成为决定生产环节转移的决定因素。随着发达国家环境保护意识不断提高、环境规制日渐严格，发展中国家相对宽松的环境规制使得资源密集、污染密集的低附加值环节向发展中国家转移，以谋求更低的环境治理成本。而发展中国家在出口创汇的需求推动下，只能主动或被动地放松资源、环境规制，承接相关产业转移。由于研发设计和营销等的高端环节中更多使用的是技术和成熟劳动力，对环境的污染小；而产品的加工组装环节消耗大量的资源和人力，排放更多的废弃物。因此考虑环境成本之后，全球价值链中低端环节和高端环节所得附加值的差距将会更大。由此导致的结果是发达国家进口资源消耗高、环境污染严重的产品但没有支付环境保护的费用，而获得低附加值的出口国资源不断枯竭、环境污染日益严重——环境要素对应的附加值间接地从发展中国家转移到了发达国家。

将环境视为经济生产中的一种要素，其总量取决于特定地区的自然条件因素、环境意识与偏好，以及环境管制。当居民的环境意识较强，或者环境管制较严格时，可供使用的环境资源便较少，本地居民留存的环境附加值则较多；反之则反。在经济发展初期，新兴经济体往往拥有丰裕的低素质劳动力，以及较低的环境意识和环境标准，由此带来相对较为“丰裕”的环境承载力资源；而实物和人力资本以及技术等要素则相对稀缺。由此决定了新兴经济体在 GVC 中往往占据劳动力密集的低端加工制造业，以及“环境密集”的产业，如采掘业、造纸、非金属矿物制品、石油炼焦、化工、金属冶炼加工等高污染、高能耗行业。由于国际分工格局的限制以及在世界市场上的激烈竞争，许多低收入国家无暇顾及环境和社会标准的升级。甚至在激烈的市场竞争下，可能发生发展中国家竞相降低环境和劳工等社会标准以吸引投资的“竞次 (Race to the Bottom)”或“生态倾销”的现象。Lueas 等 (1992) 以及 Birdsall 和 Wheeler (1992) 的实证研究发现 OECD 国家环境管制收紧导致了发展中国家的污染程度提高，说明

高污染产业转移到发展中国家，其产品通过贸易回流到发达国家。Mani 和 Wheeler（1998）则进一步测算了高污染产业的进口/出口，结论支持了“污染避风港”假说。

然而环境资源带来的经济租耗散非常快：首先环境承载力如果使用超过一定的限度，便会从可再生资源转化为不可再生资源，其供给量随着使用的过程而不断缩减；其次随着收入的提高，发展中经济体居民的环境意识也会不断提高，从而降低对高污染行业的接受度；最后，在新兴经济体经济增长的过程中，资本、技术、人力资本等要素能够快速积累，而环境要素的供给总量却只减不增，由此带来要素相对丰裕程度的改变。这些因素都决定了新兴经济体无法长期依赖其资源优势、环境“优势”追寻低端发展路径，相反随着参与全球价值链的不断深化，新兴经济体的产业结构将出现自然的升级过程。

## 2. 基于现有全球价值链体系的环境治理

基于 GVC 的全球环境治理主要通过非正式规则的方式，即通过非政府组织（NGO）与主导企业制定相关的标准来实施。NGO 代表了发达经济体在环境、社会等问题上更高的目标，并且需要借助跨国企业的市场影响力，将其价值规范推广到全球；而 GVC 上的主导企业一方面需要构建品牌形象，同时也需要通过参与标准的制定来固化其在价值链中的主导地位，并对各个环节进行治理。可见 NGO 与跨国公司的利益既有相互对立的一面，也存在合作共赢的巨大空间。

全球价值链中附加值最多的往往是知识产权、品牌和设计等环节。此外，随着消费者意识的不断提高，市场关注的重点不再仅仅限于产品品质和价格，还包括原产地、安全性以及生产过程的环境和社会影响。随着发展中国家的生产能力不断增强，发达国家的竞争优势不断缩小，使得其原有的经济租不断消失，未来跨国企业的经济租将越来越多地来自于环境和劳工标准等社会标准，以维护其竞争优势。而在环境问题中广泛存在的外部性决定了通过全球治理能够更有效地实现更高的环境目标——这恰好提供了 NGO 与跨国企业双方力量结合的契机，从而为跨国企业构建新标准和形成新的经济租提供了合法性理由。通过贸易政策推动全球环境治理已经越来越明显地成为发达国家的发展方向：2007 年 5 月，美国国会与白宫制定了一项新的贸易政策，规定未来美国与外国达成的自由贸易协定中，必须把劳工权利和环境保护置于核心地位。这一基于两党一致意见的政策指南对于未来美国的对外贸易政策具有重要影响。在“太平洋伙伴计划协定（TPP）”的谈判中，环境与劳工问题已经成为谈判的焦点，而且成为发达国家旨在限制供应链上游的发展中国家的的重要举措。美国学者 Vandenbergh 则指出，由于美国和欧洲在中国出口市场中所占份额达到 41%，因此可以利用发达国家在供应链中的有利地位，推动中国的供应商进行减排。

遗憾的是发达国家提出环境标准的出发点往往不是帮助推动发展中国

家的清洁生产和转移环境友好型技术，而是在国际贸易中设置更多障碍，恶化发展中国家的贸易条件。有学者指出发达国家主导的环境标准会导致发展中国家在建立全球环境合作的规范方面部分丧失话语权，但不一定能够实现发展中国家环境问题的改善。早在 1995 年，全球治理委员会就表示：“那些反对发展中经济体‘环境倾销’的国家，往往对保护它们自己没有竞争力的供应的关切，要甚于对人类尊严和地球安全的关切。”这对于发展中的新兴经济体而言，是非常值得关注的一点。

### 三、我国产业嵌入全球价值链的现状与发展前景

过去 30 年我国快速的经济增长得益于积极参与全球价值链的分工。改革开放初期，劳动力成本优势、资金优势、现成的技术（发达国家将成熟技术出口）、现成的市场（市场从短缺起步）、汇率优势（人民币贬值推动中国出口导向型战略形成）、商品贸易规则的优势（利用 WTO 规则推动中国出口贸易快速发展）共同成就了我国“世界工厂”的地位，实现了经济增长的奇迹。目前我国已是全球第二大货物贸易国家、第二大外资流入国家，在全球投资贸易中有着重要作用——深度参与全球价值链提升了我国经济的整体实力。

然而时至今日，推动我国过去 30 年经济高速增长的几个重要支撑性因素正在悄然变化：第一，要素成本在快速上升。一方面劳动力成本在上升；另一方面，环境成本加大，国际气候谈判及全球低碳转型的压力使过去那种高污染、高排放的产业已难以生存。第二，技术来源出现瓶颈。我国实现产业进一步升级所需要的技术已不再是发达国家成熟甚至过时的技术，而更多的是当下的前沿、核心技术，发达国家为了保证垄断技术优势往往不愿转让。第三，市场方面出现了变化。国际产业出现了双向流动，即低端产业向其他成本更低的发展中国家转移，而高端产业则向欧美发达国家回流。第四，汇率条件大大改变。随着国际社会压人民币升值力量的加强，中国不可能采取过去那种靠人民币贬值方式拉动中国出口。第五，国际贸易规则正在发生变化。美国正在重塑全球贸易版图，试图在多哈回合之外推出新的国际贸易规则。在区域层面推出《跨太平洋战略经济伙伴协定》（TPP）和《跨大西洋贸易与投资伙伴协定》（TTIP）。在多边层面，推出《诸边服务贸易协定》（TISA），涵盖 21 个发达国家的全球近七成的服务贸易量。通过这三个协定，WTO 规则将成为一纸空文，使得“中国制造”在旧规则下的优势将被大大压缩。

在这样的背景下，全球市场想新兴经济体的转向，以及国内产业结构、生产技术的日趋完整，给我国提供了一个产业升级，甚至是争夺全球价值链上的话语权的机遇。

#### 1. 我国嵌入全球产业链对产业发展造成的障碍

经济全球化是一把“双刃剑”，在帮助发展中国家实现经济起飞的同时，也在一定程度上固化了全球经济的两极分化。发达国家因其具有技术和资

本上的绝对优势，往往把持着产品的设计、研发、市场营销等环节，并通过 FDI 或 OEM 将可标准化的低端生产环节转移向海外，依靠发展中国家廉价的生产要素降低生产成本，由此在终端市场上得以获取超额的销售利润；但是从发展中国家的角度看，由于自身能力所限再加上全球价值链的封锁，所以发展中国家只能依靠本国的低成本优势被动地从低端嵌入到全球价值链中，从而参与到全球价值链比如加工贸易，获得极少的附加值，在此过程中也造成了严重的资源、环境与社会问题。

受制于我国全球分工地位，我国制造业的命运严重地受控于 GVC 主导企业，在很大程度上弱化了中国经济独立自主发展的主动性，给我国宏观经济带来许多深层次的问题：

●阻碍装备工业研发、生产和销售体系的发育。改革开放以来，沿海地区制造业的崛起的重要特征之一，是以进口发达国家的机器设备和一部分关键的中间品来生产和加工制成品。这种出口导向发展模式不仅在最终消费品的市场方面主要依赖大买家的订单，而且在关键技术设备和零部件方面也严重依赖发达国家。这使原本服务于国内生产需要的重装备工业失去了赖以支撑的市场基础。

●固化产业空间配置失衡。在发达国家主导企业控制的 GVC 上，国内生产环节不仅主动性和可控性弱，而且不具有对国内发展的延伸性和拉动性。因此，东部地区的增长只会对中西部地区产生原材料、劳动力和资金产生“虹吸效应”。同时东部地区被动性的低端定位又压制了中西部地区劳动密集型产业的发展，产生巨大的“挤出效应”。这样的产业发展路径严重地固化了东、中、西部经济增长差距，对我国未来发展多层次现代产业体系造成巨大的障碍。

●强化要素供需的失衡。为了推进我国产业的优化升级，在过去的数十年中我国着力培养高素质人才、培育自主创新能力、积累高新产业的产能。然而在现有 GVC 低端化的分工体系导致我国低素质劳动力、传统产业产能等低级要素的需求居高不下，而密集需求知识、技术、人力资本的产业链高端环节被发达国家牢牢掌控在其国内，导致我国高级要素的限制，表现为大量大学生失业的同时出现了严重的用工荒、高素质人才外流严重、高新技术研发投入提高但是市场实际应用的空间和收益有限、高新技术产业产能过剩严重等等。

●抑制现代产业体系的形成。推进信息化与工业化的融合、服务业与制造业的配套，推动高新技术产业在关键技术上、重化工业在规模上、传统产业在品牌上、服务业在生产服务业发展上取得新突破，形成以高新技术产业为先导、先进制造业和现代服务业为主体、现代农业为基础、三次产业协调发展的新格局，是现代产业体系的主要内容。但在现有的 GVC 中，无论是生产性服务业，还是高技术制造业，甚至传统产业的品牌建设，都在产业链的高端，被发达国家跨国企业牢牢掌控，导致我国难以形成独立的品牌价值和主导企业。而缺乏多层次的现代产业体系的顶部地带，造成



中西部地区被处于 GVC 低端的东部地区压制，不仅东部地区无法实现产业升级，中西部地区则更无从接受产业转移的尴尬局面。

## 2. 我国贸易发展与环境治理之间的协调性

自上世纪 90 年代我国对外贸易飞速发展以来，关于国际贸易对我国环境的影响已经有了大量的研究。张连众等（2003）构建一般均衡模型分析了贸易自由化对我国环境污染的影响，结果表明规模效应将加剧我国的环境污染水平，而组成效应和技术效应将降低我国的环境污染程度，贸易自由化的净效应将有利于我国的环境保护。沈利生（2008）利用投入产出模型实证分析了对外贸易对我国二氧化硫排放的影响，结果表明，由于出口污染排放强度低于进口污染减排强度，故对外贸易有利于我国污染减排。然而从全球价值链的视角分析我国嵌入经济全球化的程度对环境的影响却比较有限。Xu（2000）采用 SUR 方法估计了一个由广义 GDP 函数推导出的部门份额方程系统，分析结果表明环境因素即使对于环境敏感型产业来说，也不是其国际竞争力的决定力量，不存在“环境倾销”。而 Dean 等（2004）分析了 1993～1996 年间我国近千家制造业合资项目的数据，发现 FDI 投资数据支持了“污染天堂”的假说，即较低的环境标准是 FDI 流入我国的一个影响因素。张少华、陈浪南（2009）构建了一套经济全球化指数，并分析了我国 33 个工业行业 1997～2005 年间的的面板数据，结果表明参与经济全球化能够降低我国的环境污染水平。余春燕、韩晓丹（2010）将生态要素引入全球价值链的利益分配机制中，建立了一个我国对外贸易子系统和生态环境子系统发展水平的评价指标体系，定量地估计了不同价值链驱动类型下各行业对外贸易与生态环境的协调度。

按照定义，如果某一行业的贸易利益越高、环境成本越小、低端环节的利润越大，则该行业的国际贸易与生态环境越协调；相反，如果低端环节的利润为负，说明环境成本高于贸易利益，国际贸易的发展水平高于生态环境发展水平。对全国 19 个行业 8 年对外贸易与生态环境协调度的实证分析结果表明，随着劳动力的增加和资本的积累，生态密集型产品的出口减少；资本、劳动密集型产品的出口增加，使得密集使用资本、技术和劳动要素的行业综合发展指数提高，而密集使用生态要素的行业的综合发展指数相对减小。从协调度数据来看，非金属矿物制品业、造纸业、采掘业和石油炼焦业等高污染行业的协调度比较低，电子通讯、纺织业、食品制造业和医药制造业等低污染行业的协调度比较高。

不同价值链驱动类型下各行业的协调性也存在差异：在生产者驱动型全球价值链上，各行业的协调度差距大，且中国处于全球价值链低端，获得利润低，在出口规模扩大的同时，附加值没有提高。国内环境成本的自发提高导致贸易条件逐渐恶化。而在购买者驱动型全球价值链上，中国的对外贸易与生态环境处于初级和中级协调的阶段，历年的发展稳定，生态环境的发展水平高于对外贸易的发展水平。从总体看，购买者驱动型全球价值链上协调度比生产者驱动型全球价值链上的高。

上述结论为提高我国对外贸易与生态环境的协调性提供了理论依据，各行业应该根据各自所处行业的性质以及价值链上的位置向不同方向升级，同时采取措施提高生态水平。

### 3. 我国产业升级面临的发展机遇

所幸金融危机之后的世界经济格局重构，为我国推动产业升级提供了重要的机遇和必要的条件：

#### ● 市场转向带来市场的广度与深度共同提高

Kaplinsky 等（2010）的研究认为，由于中国和印度等大型新兴经济体的生产能力迅速提升，特别是在 2008 年以来国际金融危机的冲击下，制成品和中间品的终端需求发生了从北向南的深刻转移，这可能意味着全球价值链的另一重要转型。Gereffi（2014）也认为本次金融危机加速了许多全球价值链终端市场的转移，导致了投资与贸易的区域版图的重构；全球供应基地在地理上的合并以及价值链的集聚趋势加强，而议价权正在从主导企业向发展中经济体的大型供应商转移。

2014 年 4 月，国际货币基金组织（IMF）发布的《亚太地区经济展望》报告采用了 OECD 和 WTO 的附加值贸易数据库，对中国和日本在亚洲的贸易地位变化进行了比较，结论表明大部分亚洲经济体对中国经济的依赖度超过了日本；而终端市场需求明显地从日本转向了中国。该报告明确指出：“虽然美国和欧盟作为两个最大的终端市场的地位没有发生改变，但是来自中国的最终需求在过去 20 多年里迅速增长。”

终端市场的转向可能将是一个长期的稳定趋势。由于拥有较高的经济增长速度和较大规模的人口，新兴经济体正在快速形成大规模的中产阶级。按照 OECD 的标准，以 2009 年日收入在 10 ~ 100 美元之间（2005 年购买力平价）作为中产阶级的界定标准，则欧洲和美国的中产阶级人数占全球的比例将从 2009 年的 64% 下降到 2030 年的 30%；亚太地区的比例在 2009 年仅占 23%，而到 2030 年将达到 59%。也有研究认为中国中产阶级的消费量可以在 10 年内超过美国。中国在未来几十年里以指数增长的中产阶级作为新的消费群体，有望成为全球总需求一个新的长期来源。

市场的转向不仅带来市场广度的提升（即需求数量的增长），更重要的是带来市场深度的提升，表现为消费者对商品多样化的要求，以及对品质、功能、品牌等的个性化的需求增强了。这为国内企业立体化、多层次的品牌建设提供了必要的条件，而这也是构建价值链高端环节的必要条件。

#### ● 产业积累带来技术、产业和组织结构的成熟与完善

我国产业集群中的企业不乏在多条性质不同的价值链同时运作的经验。在当今中国的产业集群发展格局中，处于特定产业集群中的企业往往面临着激烈的市场竞争，这种集群内部以及集群之间的竞争，以及出于回避风险的需要和实施多元化市场战略的需要，使企业经常需要同时处于几种不同类型和性质的价值链中。如江浙地区的很多企业既加入了由美国企业主导的 GVC，也加入欧洲企业主导的松散型价值链，有的还同时自主地

对其他欠发达地区出口独立的品牌，它们在国内市场也有大量的直销经验。在不同类型和性质的价值链中，企业可以把在某条价值链中学习到的东西，运用到另外一条价值链的某种升级活动中，从而实现低成本的产业升级。

#### 四、产业升级与环境治理的协调发展

我国日益扩大的国内市场正在不断成为推动当今经济全球化下区域转型的新动力，国内（尤其是东部地区）的跨国企业正在主导着后危机时代全球与本地市场互动下的再平衡。在此过程中，以国内市场为导向的生产网络正在兴起，而由此带来的经济升级也有望会推动环境升级的进程。

“环境升级”是指各种经济行为体共同转向一个避免或减少其产品、生产过程或管理体系造成的环境损害的生产体系的过程。只有在价值链治理中具有重要地位的生产商或购买商牵头，才能推动整个供应链中所有企业共同发生行为转变。在我国产业长期处于 GVC 低端环节的条件下，很难推动环境升级的进程。因此，在有望实现市场转向、摆脱价值链低端环节的情况下，应该抓住机遇，依靠国内市场的深化着力构建国家价值链（NVC），同步推进经济升级和环境升级。

##### 1. 在全球价值链上推进产业升级与环境治理

在生产者驱动型全球价值链中，掌控研发环节的核心企业将环境污染严重的生产环节转移到具有要素优势的发展中国家，消耗环境资源生产之后，再进口到本国，使得低端环节的国家在担负高成本的情况下参与激烈竞争，获得微薄生产加工收入，环境污染严重，经济不能可持续发展。所以，在生产者驱动型全球价值链中，如果某行业的对外贸易与生态环境协调，说明该行业是低污染型行业并且在一国出口中占重要地位，若该国处于价值链的低端环节，则应该向研发环节升级；如果不协调，则说明该行业的对外贸易与生态环境的发展差距较大，当对外贸易的发展快于生态环境发展时，采取措施改善环境，当生态环境的发展水平高于对外贸易发展时，促进该行业向研发环节升级。

购买者驱动型全球价值链中低端环节的利润主要由高端环节的采购量、制定的采购价格、低端环节参与的企业数和环境成本四个参数决定。当不考虑环境成本时，低端环节的利润受后向营销和服务环节的制约，即高端环节总收益越大，低端环节的利润越高。在市场均衡的状态下，市场对某种产品的需求和市场价格不变，高端环节的总收益不变，低端环节企业的利润随着竞争的加剧而减少；后向大型的采购商为了获得高额垄断利润，在不完全竞争的市场上，采取垄断低价，转移低端环节企业的利润。当考虑到生态环境成本时，低端环节企业的成本上升，但是采购价格是由大型采购商决定的，采购量取决于市场需求量，企业的利润降低。低端环节的企业为了争取更大的供应量，不惜接受低价的供应条件，消耗大量资源环境，但环境成本得不到补偿，导致出口与环境的不协调。所以，在购买者驱动型全球价值链中，如果某行业的对外贸易与生态环境协调，但一

国处于价值链的低端环节，则应该向市场、服务环节升级；如果不协调，则说明该行业的对外贸易与生态环境的发展差距较大，当对外贸易的发展快于生态环境发展时，采取措施改善环境，当生态环境的发展水平高于对外贸易发展时，促进该行业向后端的环节升级。

## 2. 在国家价值链上推进产业升级与环境治理

要实现我国从“制造大国”向“制造强国”的战略转型，需要着力探索如何摆脱现有全球产业链中低端分工的路径。构建以本土市场为基础的国家价值链（NVC）体系和治理结构，是实现这一战略的有效途径。

国家价值链基于国内本土市场需求发育而成，由本土企业掌握产品价值链的核心环节，在本土市场获得品牌和销售终端渠道以及自主研发创新能力的产品链高端竞争力，然后进入区域或全球市场的价值链分工生产体系。现阶段我国构建 NVC 的条件已经成熟：

●本土市场的容量特别是高端市场的容量巨大，为培育我国企业和产业创新能力提供了基础。无论是设计与研发还是市场营销，所涉及的创新活动都需要大量的沉没成本。只有经济体中存在足够的需求规模，企业创新活动的高级要素投入才能得以最终转化为创新活动的收益。

●快速提高的市场深度为产业价值链的高端要素提供了价值转移和增值的空间。NVC 可以通过本土市场对创新的支持，内生地培育出本土企业或产业的高级要素，进而构建多层次、立体化的产业链竞争力。

●贴近本土市场构建的标准体系能够对国际竞争者构成进入壁垒，保障本土企业的竞争优势。此外，利用本土企业所拥有的专利标准体系，又可以作为一种打开国际市场、绕开对方市场标准壁垒的利器。

在 NVC 的框架下，国内的主导企业、各级政府以及产业组织便能够依据我国的实际需求制定环境标准，在推进产业升级的同时，将产业链治理的经验以及由此带来的经济租留在国内，用于环境治理。而利用国内市场的纵深，可以实现产业由东部向中西部地区的递次传导，实现地区协调发展。

需要指出的是，构造基于现代产业体系导向的国家价值链，并不意味着提倡封闭经济或是进口替代，而是要重新整合中国企业的商业网络以及产业循环体系，重新塑造国家价值链的治理结构，重新调整区域间的产业关系结构，为中国经济的可持续发展奠定坚实的发展平台。在中国产业发展背景下，双边交易平台载体模式（专业化市场）和单边交易平台载体模式（领导型企业网络），是中国构建国家价值链以实现产业功能升级的主要机制和方式。专业化市场作为构建基于国家价值链的重要载体和平台，其优势在于专业化市场可以为企业向价值链高端环节升级提供可能的多样化市场发展空间。而构建占据基于本土市场的国家价值链，构建其中的领导型企业，其实就是要求我们努力培育和构建中国的跨国公司。

## 3. 上海在产业升级与环境治理中的先导作用

东部沿海地区借助地理区位优势以及充裕的资本、劳动力优势，深

度地参与全球价值链实现了经济腾飞，在过去 30 年中成为我国经济发展的龙头，尤其是上海，不仅经济总量、人均收入位居全国首位。随着经济和收入的不断升级，上海的环境意识和环境标准也在不断提高。受这些因素的推动，上海已逐渐实现向后工业化发展阶段的转型，产业结构正在向服务型、轻型化、高端化发展。从要素禀赋的角度看，上海具有最为丰富的实物资本和人力资本、技术与知识等要素，并且其增长还在加速。从市场的角度看，上海作为国内最早开放的地区，先进、开放以及理性的消费观念带来了国内其他地区无法比拟的市场深度（即对产品功能、品质、设计以及品牌的要求较高并且多元化，而不仅仅是市场需求规模大）。在这些条件之下，上海依托高级要素优势，依托本土及国内市场扩大和深化的契机，积极推动产业链高端环节的发展，从而带动国内产业链（NVC）的纵深发展不仅是上海的机遇，也是上海的责任。

借鉴 GVC 的分析框架，NVC 的发展同样可以从不同的驱动力角度出发进行分析。对于生产者驱动的价值链，上海需要借助丰富的知识、人力资本和实物资产优势，将产品设计、技术研发等价值链前段环节集中到上海，实现技术密集性生产环节的范围效应，推动内生的产业发展。与此同时，积极推动科学研究、技术研发与产业、市场的融合对接，推进产学研合作，是加快消化存量知识和人力资本要素，并激励更多、更有效的研发投入和技术进步的有效手段。对于购买者驱动的价值链，上海则需要进一步推动“总部经济”的发展战略，降低营销成本、排除政策障碍，鼓励和扶持本土品牌的发展。同时借助价值链治理，整合全国资源，带动内地经济的发展。依托国内价值链的构建，不仅能够进一步实现经济转型和发展，还能带动全国的产业进步和经济发展。在这样的语境下，各级政府、社会组织和机构对资源、环境以及社会标准的要求可以有效地通过产业链治理的方式通过市场主导企业迅速传导到全国各个地区，而不必要收到发达国家的牵制。随着国内产业链的逐渐发育、生产技术和环境标准的逐渐提高，我国产业的总体国际竞争力也会不断提升。

但是值得注意的是 NVC 的构建与深化发展不仅需要部分发达地区的努力，同时需要全国各个地区的协同与配合。不论是 GVC 还是 NVC，都需要一个多层级的分工结构和多元化的主体结构，实现价值链各个分工环节的各不相同的要素需求。没有中西部地区的要素配合，东部地区高、低端要素错配的问题永远只能通过要素虹吸效应解决，进而固化东西不经济发展的差异；而如果没有全国市场的支撑，东部地区即便再多的研发、营销以及品牌相关的投入也无法形成有效的市场激励，从而使得价值链的高端环节无从发展，永远处在国际企业的压制之下。因此，要是实现价值链转型升级的战略目标，需要在全国的层面上积极推动以下三个方面的改革：

●努力培育中国的中等收入阶层，支持本土企业在国内市场实现升级。依托本土中等收入阶层的文化和市场，培育本国的世界品牌，是世界品牌在发展过程中尤其是初始阶段的基本特征。现阶段中国持续扩大的收入不

平等和“哑铃型”的需求结构，难以对品牌形成规模庞大的需求空间，在这种市场环境中无法培养出 NVC 中的关键环节的领导型企业。更为重要的是，在开放经济条件下，中国本土市场中有限的高端需求市场，面临外资企业或跨国公司高质量、高性能品牌产品的竞争替代。在这种情形下，制造企业就会丧失依托本土市场来培育 NVC 中的领导型企业的空间，从而使得中国制造企业构建完整 NVC 的内在动力缺失，转而选择低成本竞争的出口战略就成为其最优理性行为。

●千方百计地降低本土企业构建 NVC 的制度成本。

在国内知识产权保护制度或执行机制缺位的制度环境下，大量同行企业采用挖关键技术人员或者“逆向工程”的模仿与复制行为，以低价格甚至恶性“杀价”方式与研发企业进行竞争，迫使研发企业转向外贸贴牌与代工出口，以避免被国内同行模仿与复制式的恶性价格竞争。这两个方面的制度因素已成为阻碍中国制造企业构建 NVC 以及由 GVC 向 NVC 转化与协调发展的重要因素之一。

●规范地方政府竞争行为的导向。

地方市场保护主义的存在直接导致了我国国内市场分割、提高了市场整合成本，弱化了我国市场扩张与深化的效果，严重阻碍了中国制造企业利用本土市场空间来构建 NVC 的发展空间。各地方在招商引资的目标导向下，向外资提供各种“隐形”补贴，人为扭曲了企业的生产要素投入成本差异与投入比例。这些行为很大程度上降低了中国制造企业凭借贴牌代工方式的出口成本，激发了制造企业参与 GVC 的动机，当然也就挤压了中国制造企业构建 NVC 的激励空间。

# 中国碳排放贸易系统建设的政策建议

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2013 年是中国碳市场的一个新纪元年、开创之年，中国于该年开始启动一个国家范围内的，在 2016-2017 年落成的 ETS 系统，项目将会从一个试点推广到全国范围之内。

## 一、中国 ETS 系统建设情况

### （一）全球碳排放贸易体系情况

在 2012 年之前，碳排放贸易体制仍以 UTES、欧盟或是新西兰为主，但近年来越来越多的发展中国家开始加入其中，目前约有四个洲的 35 个国家以及 7 个城市参与到碳排放贸易体系。全球的碳排放交易体系大约占 GDP 的 15%，人口的 48%，这意味着在全球范围内，每五个人中就有两个人生活在碳排放贸易体系中。

### （二）中国项目试点情况

**第一，项目覆盖区域。**中国于 2011 年开始共设定了 7 个试点项目，项目覆盖城市包括上海、北京、深圳一类 GDP 占比大，工业体系发达的经济发达城市，也包括湖北、重庆等经济发展弱于一线城市的地区。通过这七个排放交易体系的试点项目，中国希望能够探索一条将系统在全国范围内铺开的路径。

**第二，各试点项目差异化规则体系。**这七个试点项目于 2013 年 -2014 年之间一一启动，并且各自建立了自己的规则，包括覆盖率、分配、数据收集、法规工作等，因此各试点均各自有自己的特点。

例如，因为这些不同的城市和省份有着各自不同的城市发展特点，每个试点项目因此设有不同的**二氧化碳排放最高限度**。就这七个试点而言，目前共覆盖了大概 10 亿吨二氧化碳的排放量，尚低于欧洲排放体系的数量，但未来中国的 ETS 系统规模将会超过欧洲的交易体系。许多高排放量的，如电力、钢铁等行业都包含在我们七个贸易体系的试点项目之中，这使得中国成为世界上第二大的碳交易市场。

又例如，经过两年的运行，大多数的试点项目都有了自己的**项目定价**，其中定价最高的是深圳，其峰值为 113 元，最低为 20 元。这个定价上的差别是因为不同的试点项目有着不同的最高排放量以及不同的评估方法。且项目定价也有时间波动。

## 二、中国 ETS 系统建设经验

在约两年的运行之后，中国碳排放贸易体系建设从试点项目中获得了很多的经验与教训。中国已经逐渐准备好开展国家范围内的排放交易体系，

而这些试点项目为制定未来全国范围内的制度框架提供了诸多帮助。这些经验主要包括：

**第一，排放交易体制在中国必要性。**在过去，中国仅通过需求控制手段来进行减排，比如说减少供应控制手段，但政府须为这些关闭的工厂付出很大程度的代价。而现在在排放交易体制当中，只要对这些企业实施一个限额和一个分配，就可以在企业间进行市场交易。

**第二，每一个试点项目都需要非常复杂和完善的政策框架和法律框架。**目前有一些已经通过了人代会的批准的法律规定，对于那些非合规行为处以很高的罚金。也有一些实现了国家政府层面批准的法则

**第三，项目的实用流程也需要同步建立。**在 2007 年之前，并没有一个基于企业层面的排放数字，企业也没有能力收集自己的碳排放数据，其中包括计算方法及汇报途径上的困难。因此在试点项目之中，需要使得企业学会计算自身的碳排放量，并建立对不同行业不同的 MRV 标准。

**第四，政府与行业之间需要建立良好的沟通。**在过去两年之中两者之间就建立了良好的关系。碳排放交易体系在中国是新生事物，中国政府在逐步学习如何设计政策，而企业也在学习如何适应政策，所以政府与行业之间的沟通交流必不可少，尤其是在技术层面和政策层面。在技术层面，政府与企业需合作设计一个监测和报告的指南，并进行碳排放的分配。对于企业来说，需要政府去聆听企业的心声，并且知道他们的分配需求以及反馈。行业 and 企业的碳管理建设在过去阶段取得了长足的进步。相比过去行业和企业仅知道提升能效，而不知道如何进行碳管理与碳交易，过去三年，大多数的企业已经集中一个公司邀请专业人员进行碳管理并设计了一些相关规定。企业从合规到逐渐适应，并逐步控制长期风险，并且和政府进行了明确的沟通。

**第五，建立透明的市场和不断进行产品更新。**碳排放交易市场是一个市场交易过程，一旦建立政策，就像其他的商品一样产生市场效益。因此在过去的 1-2 年里，就有很多金融交易参与到碳交易市场，比如碳基金。对此未来可以进一步进行二级市场的交易，或者利用碳额度作为银行贷款的一种信用担保。

### 三、有关全国范围内碳排放系统建设的政策建议

**第一，不断扩大每一个试点项目的地理范围，直至融合到全球区域。**

**第二，从中央政府到地方政府，逐步让非试点地区参与到国家范围内的交易体系之中。**

**第三，更严格有效的系统规则建设。**中国国家范围内的排放交易体系准备工作正在加速进行之中。去年年底，发改委发布了一个有关排放交易的崭新的临时条例。根据这个规则，中国将会建成一个从中央政府到地方政府的国家层面交易市场，将会由中央政府进行标准化的统一工作，同时将会对现在的暂行条例进行进一步的更新，建立更严格的合规。在这个由



发改委制订的规则之上，我们还需要把制定权利进一步交给国务院，对违规企业进行更严格有效的惩罚，建立更有效的交易体制。

**第四，国家范围内交易体制的基础设施建设。**目前有以下的任务需要完成：

**(1) CCER 规则，包括保险和贸易规则。**在 2012 年，发改委已经发布了一个 CCER 的法规规则。两年之后，中国开始对 CCER 进行贸易，它将对七个试点项目进行一种补偿，另外有一个统一的市场指南将被发布。

**(2) 全国范围内对于未来中国碳交易市场的统一标准及全国注册制度。**未来针对碳排放，将会有有一个全国范围内的配额制定和分配。去年中国发改委已要求省级单位对二氧化碳气体排放超过 1300 吨的主要企业进行数据汇报，从而建立国家范围内的交易体制。

国家范围内统一的碳交易体制规则包括两层的管理体系，首先是中央政府，主要负责规则制定，包括系统覆盖范围，配额分配、排放限额等；其次是省级政府，主要负责规定的执行，以及主体单位排放量的决定。省级层面同时需要一定的灵活度，例如如果项目需要覆盖更多的行业以及企业的话，就应建立更为严格的配额分配规则，可以根据国家层面的规则进行进一步的调整，同时还可建立一些合规性的规则。如果企业拒绝汇报排放信息或者是拒绝按照排放信息来进行缴费，就可按照规则进行大幅罚款。

# 从科技到政策：环境保护的可持续发展之路

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## 一、结构阐释

在 2014 年 APEC 会议期间，北京出现了短暂的蓝天。网友们就此造词，也被引申为具有中国特色的环境治理。国家主席习近平在 APEC 欢迎宴会上致辞时表示：“现在北京的蓝天是 APEC 蓝，美好而短暂，过了这一阵就没了，我希望并相信通过不懈的努力，APEC 蓝能够保持下去。”除了 APEC 蓝之外，环境病人、雾霾经济等都是这些年与绿色环境相关的关键词。环境污染已经成为影响公众健康的危害因素之一，每一次的环境事件都牵动着公众敏感而脆弱的神经，也呈现出越来越明显的健康损害风险。

当前，我国环境健康问题呈现如下特点：一是复合性污染严重，暴露人口众多，人群污染暴露水平高；二是人群暴露时间长，历史累积污染对健康影响难以短时间消除；三是人群对环境污染具有完整暴露途径且复杂多样，并呈现明显的城乡差异性。四是传统和现代环境与健康问题并存。近年来，我国政府部门和科研单位相继进行了一系列环境与健康基础调查和研究工作，如重点地区环境与健康调查、大气污染对城市居民死亡影响研究、中国人群环境暴露行为模式研究、环境与健康风险评估方法学研究、环境与健康综合监测体系建设、环境污染对出生缺陷影响形势分析等，在了解环境污染对人群健康不良影响方面获得了一些研究成果，加强了这方面的宣传教育和学术交流。同时，这些调查研究成果又进一步为环境管理工作提供了支持。

健康是制定环境治理政策最重要的推动力。今年是新《环境保护法》的实施元年，《大气污染防治法》修订草案也提上了议事日程，环境管理正在由总量控制和污染防治转向质量改善。新《环境保护法》明确了环境与健康保护制度，为加速推进环境与健康工作提供了法律依据与支撑，其中第 39 条明确了国家环境和健康工作的主要内容，这是第一次把环境与健康管理在法律层面上进行明确，对于建设环境友好型社会、着力解决危害人民群众健康的突出环境问题、确保环境和人民健康得到有效保护及促进城市可持续发展具有重要意义。

但是总体来说，我国应对和解决重大环境与健康问题的能力还比较薄弱。从机构设置看，行政管理职能交叉制约了环境与健康工作的系统推进，环境与健康工作未纳入地方政府社会经济发展规划；从科研方面看，目前环境与健康领域缺乏优秀的领军人才和强大的支撑队伍，长期的系统化基础研究不足，缺少规范的环境与健康调查技术方法，研究成果对管理决策的支持不够；从管理手段与方法看，还缺乏真正符合环境与健康工作需要的法律制度和标准基准，现行的许多环境管理制度及管理目标大多缺乏与

健康问题的衔接，一些与环境与健康问题密切相关的重要环境管理制度仍未建立起来。因此，为实现环境友好型社会、切实保护公众健康，需要加强科研基础数据和环保管理工作的有效沟通，走可持续发展的环保之路。

## 二、政策建议

从环境健康问题的发展趋势看，未来环境污染的健康风险趋向逐步增强，首先，环境污染对人群健康的危险在相当长的时间内会长期存在，城市化进程和老龄化问题加剧了人群健康风险。其次环境污染对人体的影响具有长时间、低剂量暴露、慢性发病等特点，人群的健康损害症状出现多带有滞后性的特征，其累积效应将在未来一段时间内逐渐显现出来。第三，环境健康事件已进入高发时期，由于其涉及人数众多，处理困难，社会敏感性高，往往引发群体性事件，必须高度重视，积极应对。当前，我国正在进行环境管理战略转型调整，包括上海在内的我国各大城市正处于经济社会发展和环境保护的重要战略机遇期，要加强环境保护、打造健康城市，可以从以下几个方面着手：

第一，要以环境与健康为为抓手，在采取针对性的措施解决当前影响公众健康的环境问题的同时，综合运用法律、行政、经济政策等多种手段从根本上降低环境污染导致的健康风险。建立基于健康基准的环境标准制修订管理机制。在环境标准制修订过程中，以满足保障公众健康的需要为基本原则，对于基础数据比较完备的化学物质，在充分考虑健康基准的条件下制定环境质量标准。要建立以人群健康风险控制为约束条件的环境容量估算方法，从而结合具体区域环境污染源的分布情况和生产情况，确定相关污染物的排放标准。

第二，对于环境污染问题突出或者居民反映强烈的高环境风险的区域开展环境与健康调查与综合监测。掌握人群环境污染物负荷水平、健康危害状况等实际情况，为确定区域性优先控制环境污染物名单、制定环境污染健康损害认定标准并进行健康损害补偿提供依据。筛选与识别环境污染健康损害高风险点位，以防范健康风险为目的，根据区域内环境污染源分布状况和排放污染物情况，确定特征污染物，围绕居民的生活模式合理设置监测点和差别化的环境监测项目，逐步实现环境与健康监测常规化。

第三，以健康风险为重要约束条件进行环境功能区划管理。以环境污染健康损害风险为约束指标，确定重点开发区域环境风险，在环境健康风险评估的基础上，合理规划城镇和产业布局，划定“健康红线”，引导人口分布到合适居住的区域。对于已经发生或者具有潜在公共健康损害风险的区域，严格实施环境准入政策。将解决影响公众健康的突出环境问题作为环境绩效评价和考核的重要指标。建立以健康效益为重要内容的环境绩效评价和考核制度，督促地方政府在发展地方经济和城市规划中严守“健康红线”，对于因环境污染健康损害问题而导致发生重大群体性事件的地方政府实行“一票否决”。

第四，针对目前大众关注度高的雾霾问题，加速推动气候友好型城市大气污染控制战略。上海由于经济发展模式和能源结构的差异，呈现煤烟、机动车尾气以及开放源复合型污染并存的态势，现在又同时面临着温室气体减排压力。因此需要研究大气污染和温室气体的协同减排关系，实施气候友好型大气污染控制战略。气候友好型大气污染控制战略包含两层含义：首先是大气污染控制措施及目标要与温室物质排放控制措施及目标相互协调，尽量减少相互负面影响；其次是通过大气污染控制措施与温室物质排放控制的优化组合，以最小成本实现削减空气污染物与减小气候影响的双赢。

第五，要关注环境与儿童健康问题。儿童对环境有害因素的作用更敏感，受环境暴露的影响要比成人脆弱得多。为儿童提供一个安全、健康和清洁的环境以满足其生存、成长和发展的需要是全社会应为之努力的目标。建议对我国儿童健康有关的环境化学品列出优先清单，并进一步提高公共卫生和疾病监测工作的广度和深度，有计划地逐步建立环境暴露与儿童健康研究的数据库；要建立国家层面大型长期跟踪研究的出生队列，对主要环境化学物对儿童发育各时期的健康影响进行深入研究，并通过各种形式加强专业人员对公众和对决策者有关环境因素对儿童健康影响的信息交流和研究成果阐释，引导公众正确认识并预防各种可能存在的危险因素。

第六，高度重视环境与健康基础信息的获取。一方面，进一步开展环境与健康调查，利用常规或专项调查的方式获取污染物状况、暴露方式、人群污染物负荷量、健康效应等各方面的数据，为风险管理工作的开展提供强有力的科学保障。另一方面，要继续建设环境与健康信息化管理平台，对各类数据进行整合加工，形成具有价值的信息资源，支持环境健康风险管理和决策过程。充分发挥信息化在环境健康相关数据资源获取、利用、加工、整合、挖掘等方面的作用，通过各类数据的整合、共享提高环境健康管理工作效率和效益。

第七，要不断提高公众环境意识，推动《“同呼吸、共奋斗”公民行为准则》的落实。从参与形式看，要将环境与健康相关信息纳入环境信息公开和环境宣传教育内容，不断创新公众参与形式。一方面，政府要组织发布科学的环境与健康知识，及时监测和纠正虚假错误信息，积极利用各种媒体宣传提高公民环境与健康素养，建立环境与健康风险交流机制，正面引导社会舆论，努力消除公众疑虑。另一方面，企业也可以通过公益事业与社区共同建设环保设施，优化环境，保护社区及公民的健康权益，取得社区居民对于企业生产活动的理解与支持，营造良好的社区氛围。

# Strengthening Cooperation between Asian Countries and Maintaining Regional Stability

Masood Khan, *the former Pakistan ambassador to China*

When discussing the confronting urgent security issues of Asia, we should firstly assess the capability that Asian countries have in dealing with security challenges, and based on which we should improve ability of solving problem. At present, there are two trends in Asia countries: one is seeking common ground while the other is representing diversification. In the past few decades, the two trends did exist in both investment and industrial development.

**To Asian countries, the most urgent task is to rebuild mutual trust in between the local region.** Currently, the United States reveals itself with the tendency of interfering in Asian affairs by restricting China's behaviors and supporting its Asian allies. There are competitions amongst Asian countries, and some of them are able to play a relatively leading role. Besides, the military forces in different countries changes all the time, and conflicts in some major countries still exist. For instance, in Northeast Asia, China and Japan dispute with each other over the issue of Diaoyu Islands. In fact, the conflict between the two countries is more because of historical issues and resource impact than the issue of Diaoyu Islands itself. In addition, the problems in the Korean Peninsula are very serious. Another example comes from Southeast Asia, in which conflicts over the sovereignty of numerous islands emerges now and then. The Asian countries are suffering from a crisis of confidence. In 2013, China and Southeast Asian countries settle disputes mainly through the bilateral coordination mechanism. Meanwhile, multilateral mechanisms and international arbitration are also methods of solving problems.

With the rapid development of China and Northeast Asia countries, the Asian security system develops constantly. More development has proceeded in other fields. For instance, China proposed the idea of the "Belt and Road" initiative in the aspect of infrastructure investment which was responded positively from more than fifty countries. Japan intended to invest billions of dollars to strengthen infrastructure construction. The "Belt and Road" initiative could also be a sound strategic shift towards the entire international situation, to some extent could change the current political pattern.

**China is supposed to conduct cooperation with more countries via economic ties.** The China-Pakistan Economic Corridor has benefited

both two countries. China also carried out many dialogues with India. For instance, Narendra Modi, Prime Minister of India, has negotiated with Chinese government over the bilateral security policy, which will certainly generate follow-up solutions. Asian countries should promote mutual understanding between each other to further strengthen cooperation.

With much pressure on military and politics, Asia countries with its constantly increased economic strength, strengthened its capability in handling the potential security risks to grasp the future in their own hands. Since Pakistan has a close relationship with China, we believe that the cooperation between the two countries will be very beneficial for both developments. China will serve as the basis of Asia's stability and strengthen the economic ties between the Asian countries for better relationships.

What direct influences of the conflicts between areas like East Asia and the Middle East will exert to China? How will the intervention of the United State affect Asia? The prospect of Asia's future is held in their own hands. We need to cooperate with other countries in order to make a contribution to Asian's stability. The problems of poverty, low education level, imperfect legal system and regional instability existing in Asia cannot only be solved by one country, but need more concern from the international community.

Above all, the construction of Asian security mechanism should be more representative and involve in broader areas. We should not only focus on Asia, but also pay attention to the development of other regions.

*Translator/Liu Ling*

# Asia Be Self-reliant

## ——2015 Shanghai Roundtable Forum on Topic "Is Asia Able to Solve Its Own Problem?"

Wu Xinbo, *Institute of International Studies, Fudan University*

Wei Zongyou, *School of International and Diplomatic Affairs, Shanghai International Studies University*

### *I. Main present security issues Asia faces*

Asia is playing an increasingly important role in shaping the world. There are more and more trade and economy exchanges among Asian countries and they rely on each other. And on the whole, Asia is in a relatively safe environment though it also faces a series of complex security changes including conventional security challenges and unconventional challenges.

For the unconventional challenges, poverty, imbalanced development, terrorism, religious extremism, natural disasters, pirates, environment and hygiene, climate changes, epidemic disease, human trafficking and drugs are main security challenges facing Asia, which are closely related to social injustice. All the guests believe that these are not only disastrous to the region but also to the world in need of dealing with these challenges jointly.

Most guests hold that the more urgent problem in Asia is the conventional challenges, including the distrust between countries, the issue of Korean Peninsula, and the issue of reconstruction of Afghanistan. Professor Chintamani Mahapatra from Nehru University says that, the conventional challenges in Asian countries include territorial disputes and territorial waters with historical factors, and also the intervene from superpowers, for example, the relations of China and Japan, China and India are intertwined with the factors of history, territorial disputes and superpower competition, which inevitably added to the complexity of the issue. In East China Sea and South China Sea, disputes are also on the rise. So maritime disputes may be the most serious issue Asia confronts.

Masood Khan, former Pakistan ambassador to China pointed out that Asia is a diverse continent in national scale, development level and military power. Asia has confronted some challenges from the past including the Diaoyu Island dispute between China and Japan, issue of Korean Peninsula, South China Sea disputes, and the reconstruction of Afghanistan, etc. The issues above are knotty and some are even worsening especially in the maritime disputes between China and its neighboring states.

Frank Jannuzi, the president of The Maureen and Mike Mansfield Foundation pointed out that although East Asian countries are closely connected but there are a series of issues and disputes left over by history which added to the uncertainty of China's future. All the different factors may lead to a security dilemma in Asian countries.

Han Yong-Sup, the president of Associate of Nuclear Policy in Korea also believes that there is a paradox of Asia's economy and security. They are closely connected in economy but extremely attached in preserving security. From a strategic point of view, the situation of Asia is like what it was in the WWI. The competition between China and the United States, the militarization of Japan, the increasing Chinese military power, and the DPRK's Nuclear Crisis, all of which harass the Asian countries.

The president of Council on Foreign and Defense Policy of Russia, Fyodor A. Lukyanov states that globalization has brought many changes to the international relations, yet uncertainty still exists. What recently happened in Asia like the chaos in Middle East Asia and Ukraine crisis poses great crisis on Asian security. The chaos in Middle East Asia will not be solved easily and Ukraine crisis make the relation between Russia and Western countries reach a deadlock. Unlike the Cold War Era, Asia now is the central concern of the world as well as of power balance, where any tiny skirmish will lead to huge disaster. In one word, any issue deserves conscientious attention.

## ***II. The ability of Asian countries to solve their own security issues***

The scholars expressed that Asia countries should first assume the responsibility of Asian security; yet concerning what measures should be taken to cope with the security problems. For the unconventional challenges like natural disaster, epidemic disease and climate change, the regional and non-regional countries should work together. Yet for the conventional challenges, regional countries have no ability to solve no matter they are willing or not. Therefore they need help from non-regional countries. However, some believe that with increasing power and strength, Asia countries should find more resources and solutions by themselves rather than rely on other countries.

Mr. Jannuzi holds that there are many problems in East Asia that Asian countries cannot solve due to lack of ability and trust. For example, China and Japan cannot work efficiently to solve the security problem in Asia. Also is the case in the DPRK's Nuclear Crisis. If Korean and Japan were negotiating with the crisis together, they are very likely to develop nuclear weapons on both sides, which is by no means a good result to the entire



security. There are also a lot of unconventional problems like pirates, illegal migration, natural disaster and epidemic disease, requiring united efforts from international community to solve. Asian countries should overcome the divergence and conflicts caused by dignity, fear or profit.

Mr. Lukyanov believes that Asian countries must address the issues on their own because there is no such case that a country ever did a favor for another country to solve its security problem. But are Asia countries well prepared? His answer is not yet.

Professor Liu Ming from Institute for International Relations, Shanghai Academy of Social Sciences proposes that the main obstacle in solving Asian security problem is the deep-rooted distrust. When making policies and strategies, Asian countries usually think of themselves only with even hardly considering other countries. The result of this pragmatically mindset is a deterioration of the regional relations, which can be no helpful at all in solving the discrepancies and conflicts.

Han Yong-Sup points that Asian countries are more active in their efforts to combat security challenges, and also come up with many constructive suggestions and are cooperative than before. But he emphasizes that Asian countries are still limited in their ability to solve the conventional security issue for big powers lacking of mutual trust while medium and small countries lacking of capability. ASEAN only has limited function as a regional international organization that still needs assistance from non-regional countries like the United States.

Khan points out that Asia develops quickly in national economy strength, the ability to solve their own problem also needs enhancing. In particular, the “Belt and Road” initiative proposed by China has boosted the economy and improved regional security. He also adds that the future of Asian countries should be in their own hands rather than relying on other countries, i.e. more intensive cooperation in Asia are needed for more regional stability.

The researcher Zhao Gancheng from the Institute of South Asian Studies, Shanghai International Studies Institute believes that Asian countries can resolve the safety problems they are facing. America retreated from Middle East and Afghanistan and shifted its focus on East Asia Sea, which provides an opportunity for Asian countries to solve their problem on the continent. The key is to build an appropriate mechanism. If it works, all the issues about security will be resolved. In particular, recover and reconstruction of Afghanistan will be a test for Asia more than a challenge.

Professor Wu Xinbo, deputy dean of Fudan International Studies

Institute, indicates that Asian countries have become more pragmatic with increasing ability and awareness. Yet the core is that Asian countries should discover a suitable mechanism and build a proper structure to jointly deal with these security issues and challenges.

The former Chinese ambassador to France Wu Jianmin briefly states that Asian countries should find the solution by themselves. Since People's Republic of China was founded, we have long taking that domestic problems should be resolved by its own while global issues be addressed by all.

### ***III. The Role of Extra-Regional Countries in Solving Asian Security Problems***

For extra-region super countries especially the United States, most thinks that Asian countries do not reject but fear what they do will make the situation more troublesome instead of contributing help.

Jannuzi maintains that America contributes a lot for Asia's peace and prosperity after WWII and for a long time America plays an important role in world peace and it can definitely be constructive in East Asian problem-solving process. Besides, as one of the ally country of Asia, America is by no means an extra-region country. Han Yong-Sup thinks that because Asia is still limited in their ability to resolve their own problems, America is therefore much needed in solving Asia's security problems. He also mentions that America has long been an ally of East Asia, so it cannot be excluded from this problem-solving process. Khan also agrees that Asia should welcome America to exert positive effect in Asian issue. The researcher Sun Degang from Institution of Middle East Relations from Shanghai International Studies University states that the distrust and jealousy between countries largely disturb the security process. And if it continues, it will inevitably disturb the development of problem-solving.

Lukyanov holds that most of Russia's territory is in Asia rather than in Europe although most of main cities are in Europe so it is still an Asian country. In 21st century, Russia should be more active and take more responsibilities in Asia. Unlike Western countries, Russia thinks that Asia's solution is more suitable. Russia has long been worrying that China may become powerful and ambitious but ever since China in crisis with Ukraine, Russia worries now more about Western countries.

Mahapatra reminds us that America's intention to help Asia out with its security problems is not simple and pure. For a series of Asian issues like the issue of Korean Peninsula, the issue of Taiwan, the issue of South

China Sea, America has long been intervening, so it is hard to say whether America is actually wants to solve the problem or not.

Doctor Zhao Minghao from Department of External Relations of the Central Committee of the Chinese Communist Party points out that Asian countries should assume the region security responsibility and meanwhile they also want to build constructive relation with America. China hopes to build constructive relationship with America, but America's Asia-Pacific rebalancing strategy barely has positive effect.

Professor Wu Xinbo believes that many of Asian security problems like the reconstruction of Afghanistan and the issue of Korean Peninsula cannot be resolved through force. Instead, we need a more open and multilateral structure which involves more countries in Asia. Certainly, Asia should be the first one to assume responsibility.

Ambassador Wu Jianmin also mentions that America sometime acts too sensitively, assuming that China tries to kick America out, which is impossible.

#### ***IV. Security Management Mechanism of Asia***

As for what mechanism should be established in Asia, the guests present have two opinions. Some think that the bilateral alliance system that America built in East Asia has exerted positive influence on its peace and economy development. In this sense, it should be well-maintained and expanded in its function to cope with unconventional security challengers. And if possible, it should also be developed to a multilateral network. Other people think that the bilateral alliance system is the result of the Cold War Era, therefore it should be replaced by other strategies and mechanisms because it fails to meet the demands of current situation in Asia.

Zhao Gancheng points out that we need a bilateral security mechanism rather than a bilateral military alliance in the Cold War Era. The current mechanisms can be grouped as marine mechanism or continental mechanism. The former mainly includes the regional organizations like CICA summit and The Shanghai Cooperation Organization. Asian Council of Security, which includes almost all Asian countries on the basis of the member of the CICA, is mainly in charge of the continental security problem. Among them, China, India and Russia are three main countries. In the future, perhaps, Japan should be included. Whether America should be included depends on the future development Asian Council of Security.

For Zhao's proposal, Khan says that Asia's Security Council should be more tolerant, which means America should not be excluded. The

multilateral security mechanism should be equal each country and great powers should not be entitled with any privileges. Mahabod proposes that there should be security dialogue mechanism between China, America and India, or between China and India to reduce suspicions and mistrust between China and India. Multi-dialogue mechanism should also be established among other countries in Asia. But we have to notice that the mechanism should be more tolerant as possible.

Han Yong-Sup holds that from the past history, the military alliance of East Asia really has exerted positive influence to Asia's security and prosperity, which we cannot deny. However with the development of Asia's situation, traditional bilateral military alliance should be expanded to multilateral mechanism.

Jannuzi points out that the value of America's allied chain lies in that hard power if the core to solve the real problem. For example, America's alliance in East Asia has been greatly helpful when facing natural disasters like the tsunami of Southeast Asia and the earthquake in Japan. No country in Asia can solve the problems on its own except America's alliance in East Asia. Yet this alliance is still in the old structure of the Cold War Era, so it needs to be adjusted according to today's situation and become more tolerant. And when faced with unconventional security challenges like pirates, epidemic disease and natural disasters, America could transform the alliance from a bilateral mechanism to a multilateral one.

Liu Ming believes that America still relies heavily on bilateral military alliance. Although America is in favor of six-party talks, but it's more like a practical solution and a little opportunism. America is very careful and vigilant in its attitude toward China and believes China is a huge threat. If China proposes to build an Asian security mechanism, America won't be very glad because it believes China is going to seize power from itself (America). Therefore it is very difficult for China and America to have talk on Asia's multilateral security mechanism.

Lukyanov wonders in such an era where the political, social and geopolitics situation is hugely different from that of the Cold War Era, is the concept of alliance out of time now? The idea of alliance alone cannot solve Asia's problem. Asia should figure out its own way of resolving problem. Shanghai Cooperation Organization may someday develop into an economy and security organization between Europe and Asia to solve Asia's security problem in a multilateral way.

## ***V. Suggestions***

The conference now comes to conclude with what we've discussed above.

First, the level of capacity building-up in Asian countries should be enhanced. Ability building-up is of extreme importance to solve Asia's security problem and keep its peace and prosperity. It includes not only nation governance capacity and economy potential, but also the political, economy and military ability of the major powers in this region to deal with security problems.

Second, cooperation and coordination in Asian countries should be improved. Because of many reasons, many Asian countries lack mutual trust both in strategy and political affairs, which is undoubtedly an obstacle for Asian countries to solve problems together. Therefore, to enhance the communication and cooperation of Asian countries in politics, economy, culture, and security area is extremely helpful.

Third, a risk management mechanism should be built. Many territory disputes and maritime disputes recently are still unsettled in Asian countries, which are obviously harmful to Asia's peace and prosperity, but also an obstacle for their ability to solve the security problems. Asian countries should build bilateral or multilateral risk management mechanism on territory and maritime disputes.

Fourth, a multilateral security mechanism should be built. Asia lacks an effective multilateral security mechanism to deal with conventional challenges as well as unconventional challenges. Given to the fact that Asia is still limited in its ability and there is distrust and suspicion among Asian countries, the building-up of Asian multilateral security mechanism cannot be completed in one day, but should be built step by step.

The mechanism could be divided into two parts: maritime and continental mechanism to be built. Also, it is suggested to start from unconventional security challenges. The continental mechanism can be based on what already exists currently and gradually make it the main mechanism to tackle the regional security problems.

Fifth, Asia should enhance communication and cooperation between big powers like America. Though America is not one of Asian countries, it has long been important in Asia's politics, economy and military issues, therefore it must be included in the security mechanism building process. Before Asia is willing and is able to solve the security problems, and also before an effective mechanism is established, the role of America should never be ignored, though America may not be right all the time. As America has long been suspicious and defensive toward China, any action that may mislead America to believe China is driving him out of Asia should be given twice thought.

*Translator/ Li Mengmeng*

# Asia's Solution to Asian Problems: There Are Possibilities

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## ***I. Key Points of Achieving Asia's Solutions***

For all Asian countries, how to tackle with their own safety problems is an issue of great importance and we need to deal with these challenges from own perspective. If Asia can solve these problems on its own mainly depends on four aspects:

(1)The Capability. Whether Asia is capable of dealing with inner challenges such as safety issues, territorial disputes and disputes within neighboring countries as well as other kinds of issues.

(2)For Asian countries, how to come up with better strategies for dealing with these safety challenges.

(3)For us, whether solutions to these existing problems are available or not.

(4)What will happen once all of these challenges have been resolved?

The most important thing, among these strategies, is that we have to be on our own. After the Cold War, America has been playing an increasing important role in Asia's development. Is it possible that we Asian countries can solve these issues without being intervened by America?

## ***II. Background to Asia's Solutions***

1. The real motive behind America's intervention with Asian issues.

We need to know that America's intervention is not going to offer merely help to countries in Asia. There are always many different kinds of conflicts and disputes within China, South Korea, North Korea and Pakistan, such as the dispute over the south sea and over Taiwan. On these issues, America has been playing its own part, but above problems are still there. Actually, it's even hard to say that America does mean to make a contribution to the resolutions. Thus, while we Asian countries cannot solve all these problems totally on our own, we cannot depend on outside aids from countries like United States.

2. A generally stable international situation in Asia. In present, the dispute over Guam is perhaps the trickiest issue for Asia. We have mentioned many challenges for Asia before, but all of these issues, say island disputes, will not contribute to wars between Asian countries and we still have a stable situation in Asia. The most serious problems for Asia now

are poverty and poor educational development, these serve as two big challenges for Asian countries.

3. The complexity of Asian problems. Countries in Asia, regardless of their territorial area, share some historical problems which occurred long time ago. These problems have a big effect on the development of Asian countries. However, it's hard to find a omnipotent solution to these problems due to the complexity. There are mainly three types of challenges:

**(1) Poverty.** Asia, the biggest continent around the world, is also the most important continent. However, one third of Asia's population are living a relatively poor life. Chinese premier also mentioned that 200 million people in China are still living with poverty. I myself, as an Indian, know that the number of the poor in Indian is more than the population of North America and Latin America continents. Another phenomenon we should pay attention to is the increasing number of the poor people, 70 percent of which just received the primary education before.

**(2) Cultural diversity.** We need to be clear about cultural diversities among different countries or different races such as differences in language. Many countries in Asia, including China and India, has many minorities. These minorities may be the source of big issues, sometimes they can even trigger some international issues which cannot be solved by merely one country.

**(3) The territorial and economic inequalities.**

China boasts a big territorial area, but the land area of India, compared to China, is relatively small. There are many other differences in territory, population and culture among Asian countries, these differences can be a main contributor to Asian safety challenges. For example, the fact that China is both the biggest country and economy in Asia can be regarded as a threat to other Asian countries, which may cause other hidden safety issues. Some relatively small countries want to get outside approaches to deal with the threat. And in recent years, we also realized the problems caused by these inequalities. For instance, some of the disputes over sea areas such as the south sea are an indication of worries from relatively weak economies, and the other disputes can be seen as the historical issues. These historical issues between countries like India, China and Iran bring great hidden dangers to Asian safety.

**(4) Other issues.** Such as the environmental pollution is a transnational problem and multinational cooperation is necessary for the environmental improvement. Some traditional ideas believe that the rapid development of China and many other economies in Southeast Asia can result in more

serious disputes. Meanwhile, poverty remains as a serious challenge and we must put more attention to many other inner issues as well.

### ***III. The Current Situation about Asia Safety Issues***

1. Each new issue will need a new solution which may trigger another new issue. For example, economic increase is a good thing. In China, the number of the rich and middle class families is big, but the income gap between the poor and the rich is also huge. This kind of situation is worse in India. Again, we all know that technological development is vital but it can also get more people unemployed. These problems are real and need to be resolved. The first priority for countries who are trying to find better solutions to deal with these issues is to considerate tackling problems personally and independently.

2. The necessity of independence and dependence. Asia confronts with various kinds of safety issues, such as poverty and multilateral problems. We need to understand that cooperation between Asian countries may not be enough to deal with some challenges. While for other issues, negotiation within countries in Asia is a better solution. Both of these two approaches can be applied to solve safety issues in a better way.

As I see it, the territorial disputes between many countries including China and America are actually the indication of big countries' power in Asia. The complicate relationship between China and India as well as the tension between China and Japan all has a fundamental effect on China's relationship with neighboring countries. In conclusion, there are many problems for Asian countries to be solved and inner negotiation between Asian countries is a necessary resolution of some of these issues.

*Translator/ Li Ziyang*



# Achieve Resilient Economic Growth

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There are more pessimists when talking about how long Chinese economic growth can continue. The scholars pay their attention to China's economic problems, especially the economic growth deceleration in the past five or six years, together with the debt, overcapacity, real estate investment and the "ghost town". These problems do exist, but it is undeniable that these problems are not here for the first time. Reviewing the past 30 years of China economic development, especially in the past 20 years, it had experienced similar problems, but might appear in different ways. Not only China, but also East Asian had issues, especially in the early stage of economic transformation and development. These problems are not uncommon, such as in Taiwan and South Korea, and even in Japan's extraordinary growth stage. These are all very typical phenomenon.

Observing the development of China and East Asian economy, one interesting question is that why the economic development can be sustained for a long time? China, after the reform and open policy, has gone through 35 years. The annual growth rate is 9.7%. It took South Korea and Taiwan 40 years to successfully enter the stage of high income. Why do other economies, even from the lowest income stage, probably experienced only 10 years or less economic growth, then remain stagnant. Why can we keep 30 years of economic growth? Why the "Asia Four Dragons" (especially Taiwan and South Korea) can complete the transition from low income to high income? This observation and thinking make us have a guess that under these successful economies, there must be some motivation to promote the dynamic growth and development.

Economic development, especially from low-income to high-income stage, in fact, is a tortuous process, which is full of challenges and risks. In this process, there will be economic take-offs and landings, external impacts and shocks. So if an economy is determined to develop from low income to high income stage, it should certainly be able to cope successfully with these challenges, resolve these risks, continue to solve various structural problems encountered in the process of economic development. Few economies can do all these. The economy development of East Asia and Chinese over the past 30 years should be regarded as a successful case. In this case, we should probably regard these two

as the Resilient Economies-- and I think, the concept of "resilient" is likely to help us understand the most important reason that China in the past 30 years, and the economic development of East Asia in the first 40 years achieved success in the development.

Before discussing why some economies have resilient, I would like to briefly describe how a resilient economy achieves economic development -- this is the experience of East Asian and China over the past 30 years. Return to the economic growth of the problem that I mentioned earlier. Due to rapid economic growth, the problems of excessive investment, overcapacity and debt problems appear repeatedly. When most of the economic growth is handicapped because of these, East Asia and Chinese made strategies tending to make a big adjustment and reform of the system, the purpose was not to resolve these problems, but hope that through these strategy adjustments and system reform to induce the newer and more efficient economy activities. Once the economic activities have been encouraging, new phenomenon occurs, so that the original debt can be transformed into the assets, the original part of the excess capacity is utilized.

If the East Asian economies did not encourage a newer and more efficient economic activity, output growth is mainly dependent on the debt and overcapacity in the industry. I think the economy is unable to maintain a sustainable development for a long time. In this sense, these economy, compared with other economies (such as Latin America and Southeast Asia), the economic development process lasted for so long time, because they can flexibly implement policy and the system adjustment, which will encourage and support newer and more efficient economic activity. This is economic resilient. Of course, not all economies can achieve flexible growth. But East Asian economies did, so did Chinese economy over the past 30 years. Reviewing our past 30 years of economic development, in every time when there were setbacks and we were at crossroads, although the debt were restructured, state-owned enterprises undergo structural reforms, compress the excess capacity, but if the focus of policy change was not on the creation of economic activity and efficiency to replace or write off those inefficiency or wasteful economic activity, the economy development is not likely to continue.

China economic reform is the so-called "incremental reform". Incremental reform will inevitably cause the fact that more and more efficient economic activity is not generated from the existing departments, but from reforms and adjustment policies. For example, the Chinese agricultural reform in the twentieth Century and the rise of township enterprises were the results of incremental reform. These reforms led

to an average annual growth rate of nearly 10%. After entering into 1990s, there were changes in external conditions. China economy faced great challenges. In addition to losses of state-owned enterprises, there was the real estate bubble, which caused a large number of unfinished buildings and non-performing assets of banks. And there was no good method to deal with these problems. We just made the tough changes in policy and system to encourage and create new and more efficient economic activity, sterilizing and compensating the original part of the economy which was lack of efficiency.

In short, in a resilient economy, changes of the policy and system can be made adaptively to encourage rounds of updates and more efficient economic activity and write off the negative effects caused by last round of expansion. Chinese has achieved successful economic development so far is largely because we always manage to push forward the reform of the system at the right time. Before and after 2008, due to the abnormal economic growth, there has been a lot of excessive investments. It was wasting and there came the surplus capacity. It is true and these are the negative parts caused by last round of expansion. They will become the burden of economic development. The government must carry on to deal with it. But if you expect to deal with the burden first and realize a new round of economic growth later, there's little hope. So, since there is excessive production capacity and it is a waste, I think we'd better throw it in history. Discard the burden of history allows us to focus on higher value, more efficient economic activity. Once the new value is found, a new round of innovation started, the original value is not worth mentioning. Therefore, the development of the economy can continue.

I think, to make the Chinese miracle of economic development continue, keep the resilient economy is crucial. With the resilience, every time when there are Chinese economic challenges, making use of the adaptability of policy and institutional reforms, it's OK to stimulate the emerging economic activities. It's the process of using creation to destroy.

So, how do an economy have that resilience? In my opinion, it requires the government and the market to form a benign interaction. If so, we can find the valuable experience from the development of East Asian economy in the first 40 years and Chinese economy over the past 30 years. Over the past 30 years, China generally maintained a relatively benign interactive relationship between the government and the market. The relationship of the economy gives China resilient. This interactive relationship can be embodied in many aspects. For example, after the reform and open policy, China financial system changed from centralization to decentralization.

Fiscal decentralization was formed and brought about regional the competitions. The trend of the market has been formed. I think this is the important embodiment of interaction.

This interaction is also reflected in the aspect of industrial policy. Chinese industrial policy at the national level are very weak, the industrial policy is reflected at the local government levels. This is the reason why the development of China competitive industry is often caused by regional industrial agglomeration in the formation and expansion. Chinese industrial development is not thanks to the central ministries power. This makes the market orientation and strength to exist in the industry development.

As for another aspect of the interactive, the local government always retains the public capital expenditure responsibilities. Without such responsibility, infrastructure in China could not have been improved so much. Improved infrastructure is actually created a very good condition for the private investment behavior and the stability of the private investment returns. Of course, the local government always wants to help local enterprises build the global production chain, which is also a demonstration of the benign interaction between the government and the market. Provinces such as Zhejiang, Guangdong have done very well, they have successfully connected to the local enterprises in the global production chain, which is today the most dynamic part.

In addition, the local government supports innovation. From the township enterprises, the rise of the private sector in 1990 (including the privatization of state-owned enterprises) to the land reform and the current household registration system, were rely on local party to carry out partial experiment and then form the consensus. So we can continue to overcome the constraints. China economy will face new constraints in a certain stage. No reform can solve all the problems, we need to overcome a variety of constraints. The positive interaction between the government and the market rather than the opposition split is the key.

Since 2008, the global economic crisis, together with over investment and capacity of the debt crisis made China stand ahead of the crossroads. In the past two years, the growth rate of the economy significantly decreased. In the face of this situation, to promote the reform of the changes in policy and system and to encourage the development of more efficient economic activity and economic sector soon became a consensus. This is the proof of our economy. As long as we can keep the interaction between government and market, we can continue to maintain the toughness of economic development, new and more efficient economic interaction will appear constantly. The level of per

capita GDP and per capita capital stock in China is very low, only 10%-20% of that in developed economies. It's unnecessary to worry about that there are no demands and the demand cannot be created. Because the per capita GDP is still relatively low, the consumption structure will undergo great changes and there is room for upgrade. The change of economic structure and industrial upgrading trend will continue to create investment opportunities.

China economy today has the pessimistic side, such as leverage ratio and credit density are too high, excessive production capacity and the monopoly of the state-owned sector, but the same as that in the past, this situation also tend to make policy and system to make adaptation to create a new and more efficient economic vitality, realize the new growth thanks to the creation and destruction and thus maintain the economic development. This time is not an exception and it is worth looking forward to. If this is the case, we can say, every time we face the impact and the crisis will not be wasted.

*Translator/Chen Qingyun*

# How Can Asian Economy Return to Prosperity

Hua Min, *World Economy Research Institute of Fudan University*

The economy bubble burst in 1989 made Japan get into a long-term stagnation of economic growth; the financial crisis of 1997 made Southeast Asian countries slip into a long-term recession; today, China economic growth also falls into a cliff-style decline, the growth rate of the economy has dropped sharply from 14.16% in 2007 to 7.4% in 2014. Judging from the current situation, except that India can maintain a high economic growth rate, most Asian countries economic growth is in a difficult situation.

How can Asia return to the economic prosperity? To this end, we must first find the cause of the Asian economic recession. If we do a comparison of economic growth in Asia and EU&US, we easily found that the periods of economy sustainable growth in EU&US is longer than those of Asian countries. The main reason for this difference is that Asian countries are basically backward industrialized countries, in order to narrow the gap with developed industrialized countries; Asian countries adopted the political-elite-driven industrial development mode. In consideration of the aim of it is to catch up, so people often call this mode "catch-up mode".

From the practice of Asian countries, this model has the following characteristics: first, eager to catch up, neglect the social transformation; second, it is motivated by the country and led by the government; third, the market is not institutional but predatory. Thus, systems are formed, which cross time and space, are full of contradictions, and lack of efficiency and can be easily noticed across Asian countries. The basic elements of the system are: traditional culture, modern politics and modern market. Results from the restriction of the traditional culture and modern politics, the market which should play a decisive role in the allocation of social resources changed into a pure trading technology, and then evolved into the tool for political elite to obtain personal wealth.

In 1453, Osman Empire conquered Constantinople (Istanbul today), which led to the interruption of Eurasian Continental Bridge Trade (Silk Road). When the Asian paid little attention to the event, the European started to explore new channel with great courage for the foreign trade, because indeed Europe was more poor than Asia. The ocean trade, led by Columbus and Magellan in 1495, established new trade channels

through the ocean. Ocean trade (sometimes was naked rapaciousness) has brought great changes to the European Community: the spirit of adventure which laid the foundation for the spirit of capitalism in Europe in the future; global vision, which made the European first abandoned the agricultural thought, and gradually established a modern industrial civilization of the world.

When the European adventurers became wealthy through ocean trade, social change was inevitable. First of all, it was necessary to identify the obtained wealth through the ocean trade was legitimate or not; secondly, if this wealth was legitimate, then if people had the right to dispose the assets freely. So it was necessary to reform the traditional agricultural civilization systematically. So there came the Renaissance, the religious reform, the bourgeois revolution and the industrial revolution. The time span was up to 100 years. The reason that so long time was needed was that the transformation of the society need time, since the social transformation was the evolution of civilization gene, if there were not innovation and identification of several generations, the restoration might occur at any time.

Looking back into the industrialization development of Asian countries, we can clearly see that almost no country experienced the systematic social change for so long time. In the face of the huge economic gap and the pressure of competition, Asian chose to catch up with the European economy in the shortest possible time as a strategic choice naturally. So, all kinds of reform and social transformation needed to be shelved, some reforms in some areas and levels were merely strategic measures in order to implement the strategy that must be taken. The result was that the cultural, moral, political and economic activities did not match, resulting in a sustainable economic growth disorder. It was necessary to point out that the lag of cultural and political reform suppressed the rise of the emerging social class, which represented a new productivity, thus losing the source of power for sustainable economic growth.

The second problem driven by the political elite was that the economic growth led by the country and the government brought about low efficiency and instability. The national mobilization, concentration of all resources to achieve social economy would bring a series of negative consequences: the high tax, the low efficiency, the regulation of market access, the usage of industrial policy to replace the market competition, the protection of private property, the destruction tax, so that the initial distribution of nation of the market transaction. Affected by these adverse consequences, people often can see, all the economies in Asia, even if there was a

substantial growth, but still could not effectively solve the problem of poverty. The reason lies in the high income was in favor of the government, rather than for the benefit of the people; the low efficiency, which led to the slow growth of national wealth; the government regulation of market access, which caused wide-spread inequality of opportunity; industrial policies, which distorted the price signal and free competition activities, and often caused the imbalance between supply and demand and the failure of investment; when the improper government intervention lead to the economic crisis, the authorities might even restrict the legitimate exercise of property rights and market power. As for why the government-led economic growth will exacerbate the economic fluctuation, this can be answered in terms of the heterogeneity constraints faced by the government and the enterprise. Constraints Enterprises faced could be summarized as: hard budget constraints from the supply part and the clearing constraints from the demand. Due to the two kinds of constraints, enterprises could not make ineffective investment and productive activities otherwise it might face losses, insolvency and bankruptcy. However, the government faced the different constraints: the government could raise taxes to break the budget constraint, therefore, the government's budget constrain is "softer" than the enterprise's; on the other hand, the government could cast money on the military R & D investment, investment of infrastructure construction, these were appropriate. There were no "market clearing" constraints and no reasonable balance point. The only constraint, the government-led economic growth faced was that it can occupy and mobilize resources. It is because of the constraints of government behavior is soft, the boundary of government source is greater than the enterprise, the over-investment issue can take place easily, and if the government is in the face of the bottleneck of resources, the investment tends to shrink, thus exacerbates the economic fluctuation.

The third problem driven by the political elite is that the development of the market is not institutionalized. An effective economic growth must let the market play a decisive role in the allocation of resources. The reason why the market allocation is high in efficiency is that there are incentives in the institutional market economy. They can be summarized as follows: the property rights incentive, competition and innovation incentive. However, in the political-elite economy, there are no such incentives. Catching-up economy needs the national mobilization, it will make the definition of property rights unclear and neglect to protect private property rights; the government-led growth mode will replace the market competition with policies; catching-up economy belongs to the resources-



mobilization type economy, rather than the profit-driven economy. Therefore, it will lead to the replacement of entrepreneurs with officials and the replacement of private property rights with ambiguous property rights. These will result in loss of property right incentive; replacement of competition with industrial policy, lack of innovation (because innovation is an entrepreneurial instinct, it has nothing to do with the government). These defects not only reduce the efficiency of economic activity, but also create a non-institutional market system. From the above analysis, the so-called non-institutional market refers to the market in which the property rights are not clearly defined, the competition is not complete and decision-making body is the main political elite and the government policy can be applied to the behavior of the market at any time, which leads to a variety of distortion and intervention, mismatch of resources and economic fluctuation. In addition, non-institutional market has generated profit government and the predatory trading. Profit government uses its control of the public sector to compete with the market. In some extreme cases, it uses public goods as the government profit tool. When the government overuses its function to enter the market and compete with the people, the market behavioral parties will cross their moral bottom line and be engaged in predatory trading. They will sell poor quality products, which may even bring harm to people's health and safety on the market to seek profits. Thus, the market falls from an effective resources allocation system to a transaction technology in aims of seek illegitimate interests.

In the face of these constraints, how can the Asian economies achieve sustainable growth?

Asian countries need to realize the transformation from the traditional agricultural civilization to the modern industrial civilization. Therefore, we need to reform the moral values, values of wealth and social system formed under the agricultural civilization.

Morally speaking, in the farming civilization, business is immoral, but in industrial civilization, business activities own the lofty status in the wealth creating. Therefore, Asian countries must realize the transformation of agricultural values into business values otherwise it is difficult for the emerging industrial and commercial sectors, especially the entrepreneurs to obtain legitimacy.

From the view of wealth, in the farming civilization, wealth means possession, especially for the possession of land and real estate (housing), but in the industrial civilization, wealth is that people have the ability to create wealth, because people pay attention to the ability to create wealth, so there is wealth current. Therefore, Asian countries must

change the knowledge about wealth. Without such change, it is difficult to change the Asian countries' practice that aiming for the economic growth, people will be busy with home purchase, the government will promote such behavior in order to increase the tax. Once the cash flow brought by economic growth flow into the land and real estate, the society will get into a growth recession due to lacking of liquidity and the entrepreneurial spirit. Not only that, the alliance between the government and real estate developer will cause economic foam and the social income gap. As for why the government is more willing to form an alliance with the real estate business rather than with the Entrepreneur, the reason lies in the fact that land finance of the government and the real estate interests is consistent (or the use of the language of economics, their utility functions are compatible), but, once the power of entrepreneurs, which stands for the market power, rises, it may bring challenges to the government, because the government and the market are in a game relationship, the relationship is mainly reflected in all areas of tax, regulation, and the orientation of political system.

Only when people can understand the definition of wealth, and how to respect the main body behavior and the behavior of the creation of wealth, will it be possible to create a new system, which can lead to fully social wealth and a new civilization development. The basic characteristics of social system are the unification of the state and the church (centralization), no private property and no freedom and human rights. So, for the Asian countries, the transition from centralization to democracy, and through this transformation to establish human rights, protection of private property rights, is the only way to complete the transition from agricultural civilization to industrial civilization. However, as long as we look into today's situation in Asia, more and more Asian countries are actively or passively involved in the struggle for power within the region and the country's sovereignty dispute, the government and the political elites in many countries devote more and more resources in the arms, not the economic and social development. If the political elite of Asian countries should continue to block the social transformation, the further decline is inevitable. It is sad that, in Asian countries, there are a lot of "intellectuals" who seek their own self-interest. They advocate that the democratic system of the developed countries is not suitable for Asian countries and centralization should be adopted. They use the problems in Asian countries' democratic politics, trying to prove that the democratic system is not a good system. Well, in the economic catch-up period people can tolerate the authoritarian politics, but once the economy takes off, without democracy, it is almost impossible to achieve the sustainable growth. Democracy is

certainly a problem, but compared to the farming civilization of the monarchy and aristocracy, it is still by far the best system. When a good system is successful in western developed countries, but in Asia, as well as other emerging market economies, it almost all suffered a "Waterloo". What's the reason? The reason is that any kind of system arrangement needs conditions to run effectively. The success of the democratic system must have the following conditions: firstly, there must be human rights and democracy, otherwise Sovereignty will become a struggle for power between different parties; secondly, the people must have a consensus and rationality, otherwise the democracy will cause social unrest; thirdly, democracy must have some wealth constraints, otherwise it will become a revolution. Therefore, the fact that democratic system in the development of Asian countries is not good results not from the democracy itself, but Asian countries have yet to create the necessary social condition of democratic politics. Simple imitation of the western democratic procedure is likely to lead to an aborted democratic system.

In order to achieve sustainable economic growth, in addition to the social transformation, change the economic growth mode is also needed.

At present, most of the people hold wrong opinions about the way of Asia economic growth, resulting in the wrong structure of Asian economic growth and two wrong direction adjustment: one is to greatly improve the service industry (third industries) in the proportion of the national economy; another is the transformation from low-end processing to the high technology. Common sense tells us that the per capita income of emerging market economies is low, and there is little demand for services. Besides, the adjustment of industrial structure cause even less services demand. The result is that when the services lack service object, it can only go onto the self loop, which is the virtual financial transaction activities. So the economy growth has not only brought huge financial risks, but also lead to serious social differentiation. One side is the high-income people in financial transactions, while the other side is the ordinary workers, who have economic difficulties. This non-inclusive growth is easy to intensify social contradictions, and conflicts to hinder sustainable economic growth. At the same time, because of the lack of talent support, the policy for upgrading the industrial structure has failed to reach the intended target. So under the double impact of low-end industry and innovation, there comes the economic recession.

Historical experience has proved repeatedly that the structure is rigid and the final structure is affected by the factor endowments, all industrial policy cannot change the endowment and the structure. So, Asian emerging market economies' trying to upgrade the industrial

structure to avoid the "middle-income trap" is a very wrong strategic thinking. From the examples in both the developed countries and emerging market economies, we can see that the government's industrial policy basically did not achieve the desired effect. In 80s and 90s of the last century, the development of the "fifth generation" computer was supported by the national industrial policy, but the market supported the wireless networks and cloud computing; USA industrial policy was to support the development of the semiconductor, while the market innovation was the broadband and iPhone; when the development of photovoltaic and new energy is supported by Chinese the government's industrial policy, while the market prefers the internet. The reason that the Internet is able to rise in China is that the Internet market is regulated by the market and the cost of entrepreneurship is the lowest. Thus, the country's economic sustainable growth is not relying on the government's industrial policy, but on how the government loses the control of the market and let the market forces develop freely. But, why in the Asian countries, the political elite will generally prefer the adjustment of economic structure? In fact, they want to control the allocation power of resources, and for their own self-interest. If there is no adjustment of the structure, resource allocation is up to the market; conversely, it's up to the government. So the conclusion is clear, without the political elite consciousness, industrial policy is difficult to fade away.

If the government should not become the main body of the allocation of resources, what role should the government in economic growth play? Or in other words, what kind of transformation growth do Asian countries really need? The answer is clear. The Asian countries really need adjust the structure of the transition system in an institutional level, rather than in the technical level. The latter is determined by market forces, and the market demand structure will be based on the talent and a better economic structure system, but the premise is to change the national mobilization and government leading mode of economic growth into market in which there are property rights incentives. Therefore, the transformation of Asia needs to increase the power of market in the allocation of resources as much as possible. And only the central government and local government decentralization (this is just a political elite internal decentralization) is not enough, the key is to make clear the definition of the boundary between government and market. Using the transformation of government functions to achieve the government and market decentralization and complete the transformation of the social resource allocation. Once the social resource allocation power is given to the market, what should the government do? The accumulated basic knowledge of economics and industrialized countries experience

tells us that the government should stand higher than the market's moral position to promote sustainable and inclusive growth.

Specifically, Government should reduced the income distribution gap through producing various public products and promoting social fair and justice. Considered that the wealth creating ability of people may be a probability distribution, regardless of the social system design, it's hard to achieve fair income distribution. But Governments' production of public products can significantly narrow the gap, because the consumption of these public products are not determined by the income level. Certainly, public goods should not just in the physical form, but in the legal form, which can ensure people to share the fruits of economic growth and the right of people to participate in wealth creation. Government should give equitable access to education, participation in employment and competition for all people, which means that governments must respect human rights and property rights. Innovation will become the norm to achieve sustainable economic growth. All actions of the Government must be subject to budgetary constraints. In the production of public goods, accounting rules must be followed and less tax revenues should be used. There shouldn't be arbitrary expansion of the balance sheet and turned the government himself into a profitable one and let the government become a hotbed of corruption. According to each of the above control, it is not difficult to find that in today's Asia, quite a lot of the governments does not have moral realms. So if Asian countries can achieve sustainable and inclusive growth lies in the political elites' willing to stand high moral realm to create the system of market economy and realize the transition from agricultural civilization to industrial civilization.

Finally, it should be stressed that the development and transformation of any society cannot be separated from education. Education is to give the previous experience to future generations, so that the knowledge can also be defined as the conscious experience. If education can be defined in this way, as for those who walk in the forefront of the history, education is the production. For the later people, education is the dissemination of knowledge. From this definition, to read, recite and write is not education, education is not to cultivate loyal. Without the development of education, knowledge will be in a rapid devaluation. From a historical point of view, as Will Durant pointed out that, in the majority of societies, when a few people control the educational and economic opportunities, the savage comes. For the Asian countries, the above two issues exist at the same time. So, from the civilians to the political elites lack sufficient knowledge and rationality, which leads to the difficulties in the transition from the traditional agricultural civilization to industrial civilization. The

difficulty is due to the lack of innovation education, including system and technology. Therefore, it is difficult for Asian countries to achieve sustainable economic growth and create prosperity without the reform and development of education.

*Translator/Chen Qingyun*

# Strengthen China–Africa Economic and Trade Cooperation and Encourage Going–out of Private Enterprises

Yuan Zhigang, *School of Economics, Fudan University*

## *1. Overview of present situation and the reasons*

During the new round of globalization right now, the rise of the regionalism is one big characteristic, the global governance pattern of transnationalism is playing a more and more important role, all kinds of regional trade organizations and cooperative activities between countries are processing frequently. And since the 2008 economic crisis, the global economy is slowly recovering, Africa will depend on the advantage of backwardness and the demographic dividend to gradually convergence to emerging market countries which is likely to be the highlight of growth speed. Since 2014, it has become an indisputable fact that China's economy has been slowing down, China needs to find a new motive for developing in the future. As the proposal of “One Belt and One Road” strategy and the establishment of BRICS development Banks and Asian infrastructure investment bank, infrastructure construction and investment of resources in developing countries will been an important way for Chinese enterprises to “going out” as a future, thus Asia- Africa economic and trade cooperation will have a broad prospect.

It is an inevitable trend for China to increase the proportion of foreign investment and share the growth dividend of other countries. On the one hand, China is facing aging population structure, which can cause the decline and even shortage of labor force along with gradually decline of domestic potential economic growth and returns on capital. On the other hand, all of China's manufacturing industry encounters the problem of excess capacity. According to the view of the current situation of foreign investment, China's current foreign direct investment cannot match its economic scale which means there has a great space to improve. In 2011 the proportion of China's GDP compared with the whole world is 10.48%, at the same time the proportion of China's foreign direct investment is only 4.05% of the world and the stock accounted for only 1.73%.The space for growth of China's foreign investment is enormous.

In recent years, China's non-financial direct investment in Africa on the absolute value is growing rapidly and the number of companies is larger. In 2013 China's investment in Africa increased by 33.9% compared with that in 2012, the number of offshore enterprises in Africa set up by China accounted for 11.6% of all enterprises abroad. In addition, China's

trade with Africa has been maintained a fast growth, Africa has strong comparative advantage in terms of raw materials and primary products compared with China. China is relative shortage of resources and raw materials. With the rapid development of economy, China's domestic resources have been unable to meet the growing demand of industrial development, and this is precisely the comparative advantage of Africa.

At the same time, the foreign direct investment is now dominated by state-owned enterprises in China, which accounted for 62.7% in 2011. The current situation that the economy was dominated by state-owned enterprises led to the inefficiency of foreign investment and homogeneity of investment structure. The foreign investment of micro enterprises is concentrated in the areas monopolized by state-owned enterprises such as mining, manufacturing, and areas closely related to the construction of infrastructure and real estate. Direct foreign investment in mining industry in 2011 is twice that in manufacturing and 18 times in agricultural with the expansion of the trend in the financial crisis under the condition of excess production capacity in domestic and continuing decreasing of international energy prices.

Developed areas like Shanghai and the Yangtze delta economic zone has a high degree of marketization and the private enterprise is more active than others. The main body of foreign investment in Shanghai is the private enterprise, but the amount of the investment is higher in the state-owned enterprise. In 2012 calculated by the number of projects, private enterprises accounted for 63%, and the state-owned enterprises accounted for 20%, but when we calculate by investment amount, private enterprises accounted for 30% and the state-owned enterprises accounted for 60%. In the industry, the foreign investment of Shanghai's enterprises were mainly in the wholesale and retail which accounts for 33.73% and business services which accounts for 59%.

As to trade turnover, in 2012 (including Jiangsu, Shanghai and Zhejiang province), the proportion of the total import and export accounts for almost 40% in total which is far more than other regions. From the perspective of the main body of Shanghai foreign trade, private enterprises has been far more than the state-owned enterprises and the gap is still expanding. Throughout the year of 2014, the total amounts of imports and exports of the state-owned enterprises in Shanghai customs fell by 6.11%, but that in private enterprises rose 9.01% compared with the last year which is about twice than that in state-owned enterprises and accounted for about 25.62% in total.

## **2. Policy advices**

In the past the economic and trade cooperation between China and



Africa is mainly about international assistance and energy resource trade, etc. We need to expand our scope of cooperation in different industries and regions in the future, especially encouraging more China's private enterprises to invest in Africa and improve the efficiency. We can keep to the following clues to match with "area" strategy helping Chinese enterprises under different ownership to "go out" in different industries more than the construction of infrastructure:

First of all, we need to improve the corresponding institution and the law system. The current foreign cooperation organization scattered in many different departments which is the same to resource management, so we can draw lessons from the experience of developed countries that set up a department in charge of foreign cooperation relations and concentrate the superior resources for unified management. Establishing economic cooperation mechanism is the basic of developing and promoting economic trade relation with African countries, we should push harder to make a deal on the cooperation and free trade agreement, also combining the strategy of "area" and CAFTA construction. At the same time, some new things such as sovereign wealth funds are still lack of appropriate legal regulation system which needs to be improved in the future.

The second advice is to develop modern service industry, especially the production services which can provide enterprises with various supports. Depending on the opportunity of the reform of free trade area, we can expand the degree of opening to the outside in the service industry. With the growth of international trade and foreign investment, China will have a huge demand for production services. In order to push the development of service industry, we should pursue the administrative system reform through the government and the transformation of government function with adjusting the access to services and regulatory policies to reduce the system obstacles of the development of service industry. At the same time we could grab the opportunity of the reform of Shanghai free trade zone to expand the degree of opening to the outside in service industry developing service trade and outsourcing platform. We should also combine with "go out" policy which is a global capital allocation strategy to encourage the service enterprises to engage in transnational operation. Allowing the service companies to participate in international competition, we could learn the advanced experience of developed countries and promote the reform innovation of domestic enterprises enhancing the overall competitiveness of the modern service industry.

The third advice is to build a platform for foreign investment providing enterprises with the new trend of investment in Africa and the world. Foreign investment of Chinese enterprises needs a functional investment platform which can timely grasp the new trends of investment returns

and demand around the world, also gathering and coordinating Chinese capital. This is a way to improve the efficiency of foreign investment. From the point of various aspects, Shanghai is the best place to build this platform.

By constructing the platform for foreign investment and providing new investment trends, Shanghai needs a breakthrough in the following several aspects: one is that the city and institutional level should effectively dock with foreign agencies timely tracking the world investment trends. At present, in the aspect of information gathering of Africa and Asia, Shanghai is far inferior to the judgment of Europe and the United States investment environment. We should pay attention to and improve the situation in the future. The second one is to develop a variety of patterns and sources of funds for constructing a think-tank which can provide service to satisfy foreign investment demand of local enterprise through diverse studies in the field of foreign investment and differentiated information products. The third one is to make good use of Shanghai financial institutions to provide efficient services for local enterprises.

In terms of Shanghai, in order to promote China's foreign investment capital to aggregate and synergize together, the first thing it need to do is to promote information sharing mechanism between enterprises and the accumulation of experience by providing information about law, culture, and enterprise behavior. The second thing is to co-ordinate the functional complements of foreign investment to avoid the vicious competition between Chinese enterprises and improve the efficiency. The last is to guide and promote the structure of foreign investment to upgrade promoting China's foreign investment to move for upstream industrial chain and high return industry.

In addition to the internal coordination of capital inside of city, Shanghai can also make use of functional differentiation between different cities to develop the function of foreign investment platform. On the one hand, Shanghai need to build a global urban network with other cities based on a global production services network servicing for China's investment strategy. Shanghai must open the production service industry to the outside world to attract multinational companies which is in financial, consulting and business service areas to enter, and become the key node of global resource allocation providing a broad channel for the Chinese capital to go out. On the other hand, Shanghai should dock with other internal cities in the field of resource allocation effectively. To improve the efficiency of the element circulation between Shanghai and other surrounding cities, we should concentrate the talents, resources and capital to Shanghai smoothly, improving the strength of the foreign investment platform. We

can promote the effectiveness of information transmission, transportation and resource flow between Shanghai and other Chinese cities. As a center of information collection and distribution, Shanghai collects information from network nodes in other cities, at the same time, passing the current new trends of foreign investment and investment structure change to other cities. Through urban network formed by Shanghai and other cities in China, we have to prepare for effective coordination of China's foreign investment strategy.

*Translator/ Bao Cong*

# National Development Leads by Innovation

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## **1. Introduction**

In today's pattern of world development, science and technology innovation has become the core factor of national competitiveness. In particular after the financial crisis in 2008, relying on capital drive has exposed a lot of problems, the innovation ability has been becoming a new driving force of urban development. The world economy has stepped into a period of deep transition after passing away the rapid development before crisis. The competition between Asian countries moves forward to the progress of science and technology, innovation ability and talent, from the economy and industry. Asian countries are experiencing an important shift toward innovation drive from the capital.

Facing a new round of global trend of technological and industrial revolution, innovation-driven strategy for China's economic transformation and promotion of international competitiveness is much more realistic. It is also the foundation of changing the extensive growth way of economy and achieve the goal of sustainable development to build the beautiful China of "five in one". If China wants to become an important planner of the new competition rules worldwide and a dominant leader of the new competition venues, it is also a key point. Under this background in the eighteenth session, the party made the innovation-driven development strategy and the major deployment of constructing innovative nation and emphasis on science and technology innovation which is the strategic support of social productivity and national strength. Science and technology innovation is now the core position of national development.

## **2. Interpretation**

The essence of innovation refers to rely on independent innovation giving full play to science and technology to support the economy and society. It can also increase the contribution rate of scientific and technological progress for economy to harmonize the sustainable development and improve the comprehensive national strength. In particular, in the eighteenth session the government firstly proposed the construction of national innovation system, including the knowledge and technology innovation system. Implementing innovation-driven development strategy is to effectively link up the two systems, building a collaborative

innovation alliance which includes enterprise as the main body and oriented by the market.

### **3. Analysis**

Since 2006 the implementation of the medium and long-term plan for development of science and technology, China confirmed the strategic goal of building an innovative country, companied with rapid progress including aerospace, scuba diving, super computer and a series of major projects. According to statistics, the spending on research and development of the whole society in 2013 reached 1.1846 trillion yuan, about 2.08% of the gross national product, of which more than 270 billion on science and technology comes from the central fiscal expenditure. The government really pays attention to the science and technology innovation strategy. However, compared with the developed countries, there is still a great gap in science and technology innovation ability for China.

#### 1) The original innovation ability is insufficient.

In terms of research and development, original innovation means, especially in the field of basic and high-tech research, to obtain the unique discoveries or inventions. Original innovation is fundamental, not only drawing the development of science and technology, but also bringing significant changes of economic structure and industry form. There are a lot of evidences that can prove the original innovation ability is still relatively low in China. Not only China is still blank for years in the high level of science and technology award like Nobel science prize, the first prize in the national natural science, first prize of technical invention, but the quality of quite a lot scientific researches and patent invention is not high which has little contribution to the real economy. Related studies show that the conversion rate is only 20% of science and technology in China, and the number in the developed countries is as high as 80%. In China, the contribution of science and technology to GDP is 21%, while in developed countries it is often as high as 80%. In addition, China lacks of independent intellectual property rights of core technologies, particularly in the computer, automobile and chemical industry, which are still monopolized by Europe and the United States and other countries. The core components are heavily relying on import which causes the result that we are subject to other countries and is bad for the improvement of independent innovation ability in the long run.

#### 2) The shortage of enterprise innovation power

Enterprise is the carrier that can translate science and technology into productivity. It is also the key to the whole national innovation ability. Therefore, the enterprise should become the main body of technological innovation. However, at present independent innovation ability of the

enterprise is weak, which has become the bottleneck of restricting economic and social development. On the one hand, many enterprises try to introduce advanced technology from abroad, simply imitating or copying without technology digestion and the second innovation. On the other hand, due to the inadequate protection of intellectual property rights in our country, patent consciousness in enterprise is weak. It is difficult to protect the original technology that weakened the enthusiasm of enterprise innovation. In addition, it is insufficient in the expenditure of our enterprise R&D and we lack of innovative talents which restricts the effective development of innovation activities. The spending of our enterprise R&D which accounts for only 1.2% of GDP, compared with developed countries which are 3% - 5% on average, is too little. At the same time, because of the training system in college and enterprise recruiting system, enterprises face the lack of innovative talents. Finally, the enterprise innovation is lacking in communication and cooperation with universities and research institutions, also reducing the effectiveness of science and technology innovation activities.

### 3) Lack of good innovation environment

Good innovation environment and proper protection of innovation is the cradle of innovative talents and activities. For now, however, the mechanism of protection of intellectual property in China is still very weak. The related law is not sound and the implementation cost is too high which cause ineffective protection for the patent and insufficient corresponding punishment to illegal behavior. Secondly, other financial support mechanism like risk investment is not yet mature, it also caused the distortion of social resource allocation which restricted the innovation activities. Small and medium-sized enterprises have the creative intention, business experience and technical advantages, but they lack of necessary funds and their innovation activities were severely restricted. And large state-owned enterprises that have a lot of social resources lack of innovation intention, wasting the innovation resources.

### 4) The city of innovation center has not yet been built.

At present, the central government definitely requires Shanghai to become a pioneer in the reform and opening-up and science development. Shanghai needs to promote technology innovation and innovation-driven strategy, speeding up to the construction of technology innovation center that have the global influence. However, according to the comparative study about the classification of the major global innovation centers, the gap still exists in the following aspects: firstly, the enterprise innovation ability is insufficient, 70% of enterprises have not independent research and development institutions, most of which relying on imported

technology and simple modification of the existing technology. Secondly, technological innovation is difficult to realize marketization. The research of technology can not satisfy the market demand. Great research achievements and products can't achieve industrialization and commercialization. There is still a larger space for improvement of production cooperation. Thirdly, the relative backwardness exists in infrastructure and communication technology, the informationization level is much lower than international cities and major cities in the Asia Pacific region.

#### **4. Policy advices**

Establishing national innovation system and taking the path of innovation has become the common choice of many countries in the world. The eighteenth session puts forward a development strategy of “innovation” further clarifying the requirements of the new reform in the new period. The government points out the direction of the future development of science in China. In particular, we can begin from the following aspects to implement the strategy:

1) Support the basic research and lead the direction of technological innovation

First of all, we should optimize the financial structure of science fund to improve input intensity of basic research as soon as possible. In 10 years, we need to increase the proportion of basic research investment in the central government steadily to the base level of developed countries, namely 30% (only 15% now). Increment is mainly used for building important science platform and talent training, guiding the local to increase basic research investment. We also can establish a diversified investment system and drive the investment for researching into 10% of the total funds as soon as possible.

Secondly, the central government needs to encourage local governments to enhance the investment level of basic research. I propose to include basic research into the appraisal system of local achievements and set up special fund channels to improve the basic research input.

Finally, we should arouse the enthusiasm of enterprises to join basic research. I suggest that we can draw lessons from foreign mature practice which is setting up basic research fund, at the same time, through adjusting and formulating the fiscal policy and evaluation system which is conducive to encourage companies engage in the basic research, we exert the enthusiasm of enterprises.

2) Improve the innovation incentives and protection mechanism, guide enterprises to become the main body of innovation

First of all, we can improve the investment and financing system of technology innovation. We need to accelerate the reform of the management system of technology project and financial appropriation combing with a variety of ways, such as repay grants, venture investment, risk allowance and discount loans, to guide and stimulate the social capital to participate in the scientific innovation. The government should support the development of venture investment fund and use different forms like periodic participation, risk subsidies, investment security, to lead venture capital institutions to invest small and mid-sized enterprises promoting the innovation and development. We should strengthen the credit support from financial institutions for the national science projects, incubation cultivation of scientific enterprises, transformation of scientific achievements, and cultivation of strategic emerging industry in the key field of science and technology work.

Secondly, we should improve the system of protection of intellectual property rights. At the legislative level, we can perfect the copyright, patent and trademark rights, especially introducing and perfecting its administrative regulations, departmental rules and judicial interpretation. In the execution level, we will deepen the reform of administrative management system of intellectual property and build an administrative system which is consistent between responsibility and right. It also has reasonable division of the labor and scientific decision-making process with the smooth enforcement and supervision. In addition, we still need to improve the system to give technological innovation more tax preference. For example, we can increase income tax deduction in research and innovation of the enterprise and prioritize to implement VAT reform in high-tech enterprises.

3) Strengthen the communication and cooperation between industry and academia, build an innovation alliance

The realization of cooperative innovation depends on making good use of benefit-driven mechanism and facilitating the open cooperation mode which includes complementary advantages, a clear division of responsibilities and risk-sharing. It also makes the cooperation change from a short single project which is incompact to a long-term system which is tight. In the process of cooperation, we should insist that the enterprise leads the research and make good use of the dominant role in the process of target proposition and innovation resource configuration to organize the implementation of innovative activities. We also need to guide and support scientific institutions to carry out basic research and service for our enterprises, such as basic technology and engineering application promoting the organic link from the research and development



to industrialization and speeding up the transformation and application of innovation output.

We must strengthen the role of technology intermediary as a “bridge”. It is significant to build an exchange platform between research institutes and service institution as a technology intermediary and establish a recommendation system of intermediary service agencies. In particular, we should develop the knowledge service and will intensify the cultivation of intermediary agencies which feature the marketization and specialization. At the same time, the government needs to introduce and cultivate a batch of talents for technology intermediary service who are familiar with international rules and get the ability of practical operation.

Secondly, it is necessary to establish free-flow and flexible-use mechanism for innovation talents. On the one hand, research institutes and universities treat the cultivation of technological innovation talents as a long-term mission. On the other hand, we shall establish the mechanism of free flowing and flexible usage for high-level creative talents and encourage these talents to engage enthusiastically in the innovation job. At the same time, we also need to optimize the evaluation mechanism for the research personnel and establish an evaluation standard which is oriented by scientific research ability and innovation to fully stimulate creativity.

#### 4) Build innovative atmosphere and cultivate the spirit of innovation

Building a real innovation culture needs to implement two changes: one is to break through the narrow view of positivism. We should change from the unilateral view of positivism which emphasizes empirical and logic science to the new idea that based on the empirical and logic thoughts dominated by thoughtful and creative conception; The second one is to change from utilitarianism emphasizing the instrument and utilitarian to the new concept emphasizing culture and spirit as the guide of scientific development based on the instrument. On a practical level, the innovation education is an important approach to cultivate innovative culture. I suggest to reforming the current concept of education and teaching method to emphasis on cultivating and developing students' personality and special skills. And we can introduce another teaching method to cultivate innovation ability and pay attention to the development of logic analysis ability including the research into the teaching process and strengthening practice education.

#### 5) Speed up the construction of innovation center and improve the global influence of science and technology

As the national economy, financial, trade and shipping center, Shanghai

must take the responsibility to construct the innovation center and become the booster of innovation-driven strategy and the construction of an innovative country. Therefore, based on the complete hardware infrastructure, Shanghai should improve the infrastructure construction, such as the big data, cloud computing, platform economy and mobile Internet, and improve the level of informatization in the city to attract high-tech industry; We can construct an intellectual property rights system including property rights protection ,patent audition, patent industrialization and capitalization and encourage the development of innovation activities; Relying on the platform advantage of scientific research institution and colleges, we can strengthen the cooperation and promote the output of the scientific research to achieve the transition; Guiding and encouraging risk investment to promote the production of scientific results is another duty for us and improving the mechanism of the achievement transformation and intellectual property liquidity; Based on these, we also need to improve the system of introducing talents to attract the world's top talents in order to providing powerful intellectual support. In addition, we must constantly promote policy and service innovation and create a favorable policy environment for technological innovation.

*Translator/Bao Cong*

# Shanghai Forum "Silk Road Roundtable" Policy Advice

Wang Jian, *School of Economics, Fudan University*

In recent years, “the Silk Road” has been frequently mentioned by Chinese government, and gradually incorporated into Chinese strategic level. In the morning of 7th September, 2013, Chinese President Xi Jinping addressed an important speech at the Nazarbayev University in Kazakhstan, envisaging a common construction of Silk Road Economic Belt. Later on 3rd October, President Xi made an important speech in the congress of Indonesia and stressed that China would be willing to build a “Marine Silk Road” of 21st century with ASEAN countries. During the 2014 Olympic winter games in Sochi, Chinese President Xi and Russian President Putin made a strategic consensus about the issue of the Silk Road and the Maritime Silk Road across the Eurasian railway.

Silk Road Economic Belt and the Maritime Silk Road in 21st century (in short “one belt and one road”), is an important strategic decision made by the CPC central committee where President Xi Jinping is the general secretary and complies with the global trend. This great idea gives a connotation of the new era of the ancient Silk Road. The ancient Silk Road was once a famous commercial communication between eastern and western civilizations, which made a great contribution to the exchange and fusion of country culture and ideas along the Road. Now the world economy and culture increasingly involve with each other, so the economic strategy of “new Silk Road” is likely to inject new vitality to social and economic development of all the countries’ along the Silk Road.

The “one belt and one road” in 21st will bring about great social and economic benefits, both home and abroad. Here follows our advices towards the relevant issues.

## ***A. Promote the infrastructure construction and integration along the Silk Road***

1. We advise promote the construction of transportation infrastructure. It includes railway, highway, port, civil aviation. Central Asia, South Asia, Southeast Asia should be the focus. The railway projects between China and Laos, Thailand, Burma, Pakistan, Uzbekistan may be preferred. The highway between China and Kazakhstan, Tajikistan may be the key reconstruction projects.

2. We should expand the maritime trade, and drive the coastal port

infrastructure construction.

3. We should strengthen energy cooperation and energy infrastructure construction along the route, including oil, gas and electricity. In the construction of oil and gas pipeline, the northwest, southwest, northeast and offshore oil and gas pipeline are all the strategic channel. The gas pipeline of China and Russia, Central Asia, the oil and gas pipeline of China and Myanmar will be the key projects. Southwest power channels, the electric power channel of China and Russia will be deployed, constructed or updated.

***B. Promote trade cooperation and strategic integration of countries along the new Silk Road***

The US-led western countries dominate today's international trade system, which set up many industrial policy restrictions in developing countries to protect the historical superiority of western countries in the name of trade liberalization. In order to restrict Chinese development, America hold the trans-pacific strategic economic partnership agreement negotiations (TTP) which 12 countries participated and remade the global service trade rules. America also actively promotes "return to Asia" policy, makes disturbance in east Asia by making use of Japan, so as to hinder the integration of east Asia and curb the rise of China. Through the establishment of new Silk Road economic belt, China can take the initiative to create peace, cooperation and harmonious external environment, and create favorable conditions for the integration of east Asia and South Asia in the face of a complex changes in the world.

To further promote the development strategy of "going out". Since 2009, the world economy especially in the developed countries has sharply slowed down the rate of development resulting in further weakening of external demand. Western countries have all adjusted structure, deleverage and reindustrialize, international trade protectionism rebound and strengthen. In this background, Chinese high export growth rate is unsustainable. It's hard for Chinese huge supply capacity formed by long-term development strategy of "export-investment-led" to adaptively shrink, and make a great impact on economic development in the condition of European and American slowing economic growth. If the idea of the Silk Road economic belt could be implemented successfully, it will smooth the Asia-Europe economic artery which has been blocked for many years, and enable China to communicate with each other in transportation, trade, investment and finance, as well as establish a broad international market, describe a new far-reaching influential Asia-Europe economic landscape which benefits all countries along the road.

It is important to establish a new dynamic international trade system.

The so-called new Silk Road economic belt is essentially an economic development corridor which starts from China, passing by Europe, Africa and South America and other countries along the Silk Road. In the view of countries and regions accommodated by the Silk Road, this is in line with the integrated economic direction of Europe, Asia, Africa and South America. It will benefit for nearly three-quarters of the world's population if it continues successfully

The Silk Road economic belt's region is vast, and rich in natural resources, mineral resources, energy resources, land resources and precious tourism resources, known as the 21st strategic energy and resource base. The Silk Road economic belt, which connects the eastern dynamic Asia-Pacific economic circle, the western developed national economies and the vast continent of Africa and South America, has a highly complementary in the national economies along the road, and a huge potential in transportation, finance, energy, communication, agriculture, tourism and win-win cooperation in other fields.

### ***C. Financial solutions of economic strategy in new Silk Road***

The financial plan of trade and integration: getting rid of the western monetary and financial monopoly, establishing a new currency system centered on RMB.

The financial plan of infrastructure construction and integration: In addition to the Asian infrastructure investment bank and the Silk Road fund, the construction of BRICS development bank and SCO development bank are also the safeguard of "one belt and one road". And the Silk Road bank and the maritime Silk Road bank which is being built will also provide a wider variety of choices and opportunities for the countries' financial cooperation along the Silk Road.

### ***D. Risk control of new Silk Road economic development and the government's role***

The risk control involves infrastructure construction and integration, as well as the coordination of political and religious conflicts between countries.

The risk control measures of the new Silk Road safety include strengthening cooperation between the governments against drugs, terrorism and the three forces.

To strengthen the government support for the new Silk Road economic belt, it includes: making use of the forty billion dollars to provide financial supports for the countries' infrastructure construction, resource development and industry cooperation projects; setting up the basic industry development fund and investment mode, the BRICS bank loan

guarantee policy and the IMF loan guarantee policy, etc.

***E. Play an effective and strategic role of Shanghai in construction of the new Silk Road***

As the pioneer of Chinese economic development, Shanghai has natural advantages and irreplaceable status in the “one belt and one road” national strategy. So as for Shanghai, it needs to organically combine the “one belt and one road” national strategy and development. And it needs to continuously expand and extend the new space endowment by making full use of geographical advantages. Based on the shore of the east China sea, Shanghai should internally rely on the Yangtze river golden waterway and develop railway network communicate with inland cities, and connect the world through the international airport and seaport. Shanghai is not only the natural hub of the Asia-Pacific region, but also the best window for international economic trade. With good infrastructure and management level of software and hardware, Shanghai has the ability to promote comprehensive cooperation in trade, investment, finance, communication and infrastructure construction. And it will make the “new Silk Road” really a strategic height of national and regional economy. As a leading position in the finance, logistic, internet, education, health care, and other modern service industries and areas of the livelihood of China and Asia, Shanghai could provide a variety of services and intellectual support to build the “new Silk Road” and promote Chinese cooperation with the countries along the road in finance, trade and investment.

As the link between central and western Asia, China and the Pacific Economic Sphere, one the one hand, Shanghai should positively response to the challenges of TPP and the “return to Asia-Pacific” strategy. While, on the other hand, Shanghai should strengthen construction of Shanghai free trade area and make itself the “4+2 center”. The “new Silk Road” is an important component of Asia strategy, Shanghai need to research more into the policy of “Looking Up To The West”. It also has a very important practical significance for breaking through blockade among the European and American developed countries.

In the construction of the “new Silk Road” and the domestic and regional economic cooperation, Shanghai should play a positive strategic role, and effectively interact with “the new Silk Road”, the Asian infrastructure investment bank and the Asia-Pacific free trade area. With the national and local government policy guidance and support, Shanghai should make full use of concentrated endowments, talented people, advanced vision to further highlight and strengthen response of national strategy of transition.

*Translator/Zhao Zhefeng*

# Shanghai's role in 'One Belt One Road' Strategy

Hou Yangfang, *Fudan-Gansu Silk Road Economic Belt Collaborative Development Institute*

'Silk Road Economic Belt' and '21st-Century Maritime Silk Road', short for 'One Belt One Road', are major strategies of China. As Chinese economic centre and the pioneer of 'Reform and Open' Shanghai should/must and is able to play an important role in this chief project of China.

## ***Shanghai is the most important pivot and node of 'One Belt One Road'.***

The starting point of ancient 'Land Silk Road' is the capital of Han and Tang Dynasty—Chang'an and Luoyang. While the main means of transportation at that time were animals such as horses and camels, today cars and trains have replaced them. Shanghai is located in the end of Eurasia land transportation, which is a major railway terminal of China; what's more, Shanghai is the largest harbor of China and the rest of the world, and it's the most important harbor and starting point of modern 'Maritime Silk Road'. Therefore, Shanghai is the junction of modern 'Land Silk Road' and 'Maritime Silk Road', which makes it the most important pivot naturally. In addition, as the leading city of 'Yangtze River Economic Belt', Shanghai could connect 'One Belt One Road' with 'Yangtze River Economic Belt' seamlessly, which will influence the vast hinterland of China.

## ***Current achievements of Shanghai in developing 'One Belt One Road'***

Historically, before 'One Belt One Road' was proposed, Shanghai had participated actively in the construction aid projects in the surrounding areas of 'One Belt One Road'. In 2001, Shanghai positively responded to and took part in 'Western Development'—a strategy of central government. On 17th May 2010, in response to the Xinjiang Work Seminar of Central Committee of CPC, Shanghai started to support Xinjiang's development, and the place it supported was the pivot of ancient 'Silk Road'—Kashgar under the Pamirs.

As a famous university in Shanghai, Fudan took part in the construction of 'One Belt One Road' with concrete actions actively. In October 2012, Gansu, the province which is located on the golden period of 'Silk Road', signed a strategic cooperation agreement with Fudan University in Lanzhou, pushing forward the economical and social construction and the development of higher education of Gansu. Since April 2013, teachers and staff from Fudan have been to Pamirs, the most perilous and important traffic pivot on ancient 'Silk Road', on field trip for 5

times. It has been the first trip in the world for a century; based on it, the world's first Silk Road Geographic Information System was made, which reproduced the accurate route of Silk Road firstly. In response to 'One Belt One Road', Fudan-Gansu Silk Road Economic Belt Collaborative Development Institute was established in August 2014. In December 2014, Shanghai Ruinan Enterprise Group Corporation, taking active part in 'Western Development' in those years, signed an agreement named Fudan-Ruinan One Belt One Road Strategic Cooperation & Silk Road Research Grants and Scholarship Agreement with Fudan University. It was the first research grants and scholarship among Chinese universities, aiming at integrating groups and resources of strategic and policy studies, founding a interdisciplinary research platform, constructing a world-class think tank, pushing forward the win-win cooperation among local governments, universities and enterprises, serving the strategic planning and development of 'One Belt One Road'. It was also the first time that a university cooperated with an enterprise to serve 'One Belt One Road'.

### ***Suggestions on Shanghai's future contribution to 'One Belt One Road'***

According to Shanghai's unique location and advantage, and its solid foundation and achievements in the construction of 'One Belt One Road', Shanghai will play a more significant and irreplaceable role in the future. Specific performances are:

1. Make full use of Shanghai's traffic pivot to construct a logistics platform serving 'One Belt One Road'.
2. Make full use of Shanghai Free Trade Zone to serve the countries and regions along 'One Belt One Road'.
3. Make full use of Shanghai's advantage of education and culture, establish 'One Belt One Road' education training centre which is for governments and enterprises and enrolls foreign students from relevant countries, create cultural high-quality goods with world influence, and export soft power of Chinese culture.
4. Combine constructing 'Global technology innovation centre' with serving 'One Belt One Road' to push forward the high-level development of new Silk Road in 21st century.
5. Take full advantage of Shanghai's financial centre, found 'One Belt One Road' Countries Development Bank and settlement platform which uses RMB as transaction currency.

### ***Suggestions on the future strategy of central government on 'One Belt One Road'***

1. Push forward the public diplomacy along 'One Belt One Road' in



which NGOs, educational organizations, research institutes and charities will take part.

2. Lay stress on the collection of public opinions, especially online public opinions

3. Pay attention to cultural communications and co-production of high-level cultural products which can be widely accepted (e.g. documentaries, multi-language reports, picture albums and etc) to push forward the export of Chinese cultural soft power.

4. Make full use of comprehensive universities to organize the trainings in the aspects of history, politics, culture, customs, language and geography for government officials and enterprises of countries along 'One Belt One Road'. And foreign students from relevant countries should be involved too.

*Translator/Yuan Xiao*

*Proofreader/Chen Qingyun*

# Preventing the Risks of Cross-border Data Flows and Protecting National Information Securities

Hui Zhibin

## *I. Background of Internet Data Security*

Data security in cyberspace has been brought up for a long time, and its importance is much valued nowadays. Edward Snowden has caused an international trust crisis which posed real challenge for the policies and laws in the international economic field. And this has brought an urgent demand for researchers and the academic field.

According to the statistics of daily Internet use around the globe and the relevant node, we can conclude that the cyberspace and the real world is highly simultaneous in terms of active time, and geographically speaking, it responds to human habitats. We can say that the cyber world is highly integrated with the physical world.

However, two shifts are resulted in the physical world's overall datamation. First is the realization of an intellectualized cyberspace, which includes mass mapping, control of physical space and prediction of the future; Second is the purification effect, which has more realistic sense and is probable with the development of technology.

In the process, Big Data has become a core strategic resource. The reasons can be summed up as follows: First is its openness. The exploitation and the opening of cyberspace data resources including the developing wave of the United States, started years ago. Second is the competition for control. The competition around the global data is becoming more intensive and the space structure is optimizing around the world. As countries have been aware of the global data resource as a competitive and highly strategic resource, they are eagerly taking control of data resources at home and abroad.

## *II. Cross-border Data Flows and Jurisdiction of Data*

### *1. Three Elements in Differentiating the Jurisdiction of Data*

As data is a strategic resource, the jurisdiction of data has gained a relevant vital significance, which can be approached from three aspects. First is the jurisdiction in the broad sense. Google, for example, is certainly under the jurisdiction of the US in the broad sense. That is the core element. The second element concerned is the server. If Google has set servers in the UK or other countries, the location of the servers definitely affects the jurisdiction of data. Thirdly, the citizenship of the

people involved in the data can play a role. If the data of an Indian is saved in a UK server, India may have some jurisdiction.

## 2. Two Trends in Response to Managing Cross-border Data Flows

The jurisdiction of data brings two major problems, the fast mobility of data and the local... Two trends are prominent around the globe when coming to addressing the two problems. On the one side is the US, who extols freedom and fluidity. As a pioneer of data who claims the majority of the core resource, the US cannot promote freedom and fluidity of data flows more, just like some economic organizations are prone to promote the importance of economic development. Unlike the US, India, Israel, South Africa and New Zealand, most countries are on the other side and for protecting cross-border data flows. After the Snowden event, the whole globe started to build a data security system. Russia, for example, promulgated laws in July last year to ensure that the operators store its citizen's data within its borders, and if the cross-border operators request cross-border data flows of a citizen, they must obtain a written authorization from the citizen. Because of the legal basis, the localized management has become acceptable around the world.

## 3. The Influence of Data Localization

In demonstrating the influence of data localization, the researchers at the US political research center revealed that if data localization be implemented overall, China will face a economic loss of 3 billion, including its international investment. In order to avoid such losses, the government can restrict on the corporate responsibilities rather than demand the operators to store the data in local facilities. Australia, Singapore and the Philippines are test on this. Internet in the future may be unlike Internet which is initially united, a locally facilitated mode instead may become popular.

### ***III. Advise on Policies of Chinese Cross-border Data Flows***

The US and the EU are advanced in terms of data security. Before the outbreak of the prism, the two parties had deepened their cooperation, which included Safe Harbor Agreement and US-EU Data Sharing Deal, and the conflicts between the two will go through violent changes as a consequence of the globalized Internet. During the Prism event, the situation was rather tough, and EU ended the Safe Harbor Agreement and US-EU Data Sharing Deal. But the trust between the two is longstanding, and the Prism was only recent. When the US released big data, it gave special emphasis on the protection of its citizen's and its allies' information and facilitating fluidity.

From long run, the locally facilitated policies of cross-border big data

flows adopted by China achieved dynamic balance. It has conditions and routes, and fits into the policies of data fluidity and exploitation. It is worth mentioning that the locally facilitating policy will play a role for a long time, especially in the core and strategic field.

Firstly, as one of the world's leading powers, we need to manage, acquire, and exploit data resources in a global context and explore how to manage data flows and hold dialogue with others.

Secondly, we should propel the innovation in data security and the industrialized development. Many of China's problems concerning information and data security are caused by our deficiency in safeguarding ourselves. The polarized policies may contribute to the dynamic balance and a protective mode as the technological innovation and the industrialized development take shape. The policies can be more open when China succeeds in uplifting its research and development

Thirdly, we should construct a strategic theory framework and actively promote the management of data security in an international context.

Fourthly, we should be cautious about the blockade that Chinese IT companies meet when going global. Some Chinese companies such as Huawei and Alibaba are upsurging, and these companies will become the developer and main applier of China's data resources. Our country should organize talents to analyze how to break the blockades of data security faced by these companies in the globalization process, and guarantee their safe travel abroad.

Fifthly, a basic requirement of national information security is that the data security and protection of private information must take the people into consideration. Military powers is traditionally deemed as the principle guarantee of national security, but big data has become the basis of national information security as the age of big data is coming. It is an age values on building trust among the government, companies and people and mechanism for profit allocation.

*Translator/ Li Qian*

# Internet Governance in China

Wang Yukai, *Vice Director of Chinese Administrative Reform Research Institute*

China has entered the information era before the accomplishment of industrialization. Informationization and industrialization intertwine together, making the development of Chinese society more complicated. Without informationization there is no modernization, and without network security there is no national security. The way towards powerful Internet country is rather challengeable for China if without our own core technology. The threat from internet is much more serious than the threat from the sky, sea and land.

## ***I. The comprehensive challenges of China's Internet governance***

1. The network size and the amount of Internet users, mobile phone users, mobile Internet users, SNS users have all reached the top in the world, which brings huge challenges to the government. China is in the process of transforming into an information society. Although China's internet penetration rate is not the highest in the world, challenges emerge due to the huge population, that is, "five global NO.1s". Chinese internet users is the number one in the world, with over 700 million; Chinese mobile phone users is the number one in the world, with over 1.2 billion, of which there are nearly 700 million smart phone users; mobile internet users is the largest in the world; social networking and instant messaging tools is the number one in the world and there are more than 1.5 billion listed users of Alibaba, Sina weibo, Tencent wechat and so on.

2. The rapid development of Internet transactions brings huge challenges. Last year the total number of people involved in internet transactions reached over 300 million, the turnover of online shopping surpassed 3,000 billion, and the e-business turnover reached over 1.4 billion, all of which have pushed Chinese consumer internet to the global Internet market.

3. The participation, posting and events online bring challenges for Internet governance. The Qing'an incident in Heilongjiang Province indicates Chinese netizens' concern about social incidents.

4. The Internet illegal behaviors and crimes bring big challenges to national security and social stability, which include dissemination of false information, infringing personal information, etc.

## ***II. The problems of China's Internet governance capacities***

There are four main problems in the process of fast-developing internet

and large-scale participation.

First, the drawback of government administrative system turns out to be obvious. More than 30 sectors and government agencies follow the same rule to manage, which causes overlapping functions, inconsistent rights and liabilities, low efficiencies, etc.

Second, the management of Internet media and Internet industry is far from keeping up with current fast-changing situations while the government lacks manpower and abilities to management.

Third, weaknesses of internet governance exist in reinforcement of network the legislative work and public opinion guidance. The inadequate legal system of internet governance hampers its further development.

Fourth, lack of independent core technology restricts national Internet security. China has full control over computer technology system but neither software technology system nor micro-electronics system. China's technological research still follows American technological research, and technological ability is greatly constrained.

### ***III. Policy Suggestions***

Improving internet governance ability is an important means of becoming a powerful Internet country. Internet governance is a huge task, which could be addressed through flowing eight suggestions under the principles of active employment, scientific development, legal management.

1. Negative controls should be shift to an open policy on the basis of reasonable and efficient management on the promise of an open internet environment. There are more than 100 million people using proxy server to search the foreign website, which is quite abnormal. It is necessary to change this situation by establishing reasonable and efficient management.
2. The Internet governance mechanism should be established under the leadership of central network security and information leading group.
3. Regulations and responsibility mechanisms are essential for network security, network information, informationization infrastructure.
4. Policy consultation should play a role in internet governance issues. Expert consultative committee that should be established under the central network security and information leading group provides service of decisions and consultation concerning important problems on national internet governance and informationization. Based on computer network information management, we should employ various resources including experts of economy and management.
5. Introducing strict law enforcement in system. The new system is

characterized by overcoming governmental private interest, building accountability investigation system and information approval system.

6. The concept of the rule of law should be combined with Internet governance assisting with necessary administrative means. Legal system cannot be replaced, and long-term depending on administrative means corroded good governance capability.

7. Cloud computing, big data and other new technologies should be comprehensively applied in coping with different situation. For example, the big data technology can be applied to establish a forewarning system on the content supervision, and set up a coordinated response system among different sectors based on it.

8. The collectively governance pattern should be constructed through renovating internet governance system and cooperating among social society.

*Translator/Peng Yue*

## Addressing the Interest Appeal of Different Groups for Ecological Balance of Internet

Zhu Huaxin, *General Secretary of Public Opinion Monitoring Office of People.cn, Senior Reporter*

1. Understanding the appeals behind public opinion, and addressing the benefits of different groups. What behind the public opinions is true appeal of people, and what behind the netizens are citizens. Nowadays, multiple appeals between left and right has arisen on the Internet. They are all the emotions and activities of real social groups. Today, we should change the supervision of key words and sensitive words, which are just emergencies happened one after another and behind which are real cyber groups. And opinion leaders are just representatives of various cyber groups. We should turn to social governance, i.e. we should understand the implications of articles online look upon the interest appeal of different groups. to allow a more transparent and equitable interests of the game.

2. Being alert to big V netizens (verified weibo users who have more than 500,000 followers) and netizens expressing their opinions cross the bottom line, including middle V netizens. Big V netizens put forward an idea that we should tolerate expert netizens and clean the suggestions in the field with which we are familiar. We should be alert to big V netizens and those netizens expressing themselves cross the bottom line. Some investment experts and real estate tycoons are economic experts, but they always discuss political issues on the Internet and even legal issues with a high threshold. This is not the impact of the ten million fans to get a certain extent, but, to some extent, it indicates the network public opinion bubble. The good news is that some big V netizens have quit from the Internet due to drugs and many other negative reasons, which is benefit to rebuild a rational Internet system. Meanwhile, some positive opinions about middle V netizens should be treated rationally. The key opinion leaders online like Sun Xiao are reliable. A teenage with five-stroke armband at Wuhan city read People's Daily at seven years old and watched Network News Broadcast at four years old. At that time, Sun Xiao, as a famous teenager expert, said that the society could critic his parents but should not expose this child to the public.

3. Optimizing the composition of new-media talents, and improving comprehensive knowledge literacy. With no exception of traditional media, newspapers, magazines, radio and television are all been supervised very tight. The Party supervises the cadres and the



propaganda tubes, but they all have opened their micro-blog and we chat. The influence in the new media has surpassed the traditional media. The supervision in the new media is not so strict that sometimes the unconfirmed news will be released indiscreetly, which blow up the certain extreme emotions. The audience positioning of micro-blog and we chat cannot be the same. The talent composition of traditional media is relatively ideal while the new media suffers serious deviation. The knowledge structure of micro-blog, we chat and many central media department is quiet simple. Many news reports are very professional, but the netizens of traditional media and weibo, wechat are very savvy without medical, legal and other qualifications. Without strict training and restriction of the process of traditional media, they are easy to be tainted with the habits of spreading rumor and aggressiveness.

4. Paying attention to vulnerable groups, and strengthening government support. Public intellectuals are whom people are concerned about. Personally, it should be considered from two perspectives: as the expectation of General Secretary Xi to democratic parties last year, public intellectuals are hoped to offer more wise advice and practical suggestions. For the lawyers and media practitioners, on the one hand, they safeguard the judicial justice, on the other hand, they ballyhoo out of the court. Some people, including media practitioners, are apt to express their opinions in we-media carelessly. Some facts have not been released from their work unit, however, they just make them public in the We media. Without strict review and restriction of the press process, the truth can be easily distorted. Former Premier Zhu Rongji said, since 1998, as many as 27 million workers had been laid off from State-owned enterprises, which is 10 million more than the educated youth returned to the countryside of 17 million. At that time, it gave birth to many works of scar literature, including *A Storm Is Coming Tonight*. Ten million more than the returned youth, until now there is no work of impressive literary to reflect their voices. Today the appeal of these vulnerable groups is real. But they are not trained in modern scientific education, and also do not understand the universal value. They pick up political terms at Culture Revolution and use revisionism and the idea of Gang of Four to judge the unfair competition and judicial injustice of today's market reform.

5. Encouraging micro-public welfare to be a benign guidance for teenagers. The government should give special encouragement to mirco-public welfare netizens like Deng Fei At that time, De Fei recorded the disadvantages and shadows of the society, such as the self-burning caused by the conflict of housing demolition and relocation. Recently, Deng Fei has shifted his focus to free lunch and insurance program of critical illness, which represents the active transition of teenager. Chinese society

still needs that constructive gesture. Deng Fei has a best seller book named "Change China Softly". I think we should advocate a strategy that making improvement softly among the new-media stuff and netizens.

6. Strengthening the political guidance and absorption of new-media figures to guide them back from marginal to mainstream. The more marginal, the more aggressive it will be. As a result, they have to be introduced from marginal to mainstream, and be provided with the opportunity to take to related government agents and departments. We should try our best to pull them from social media to professional media. From Twitter to Weibo, commercial newspaper, national party newspaper, national television station and mainstream media, the communication with mainstream society can reduce internal friction in society. We should also eliminate occupational netizens, which is to allow our netizens to have a decent and stable income. Occupational netizens are caused by the mentality of refugee with antagonism while the middle-class in much more constructive. We should also encourage the suggestion in the profession fields and professional middle V netizens. China is in the transitional period, and many contradictions are not unilateral problems of the government. The whole society should work together to solve those complicated problems. Internet should not pay too much attention to the top design. We should guide and care about the improvement of the community from the nearby social improvement. We should also open professional media. Under the pressures of we-media, we should tap full potential of professional media that dig out the truth, have scientific and professional networking resources, and rationally analyze the social realities so that we can reduce pressure from the network. Do not overestimate Internet we-media. We have hundreds of millions of Internet users as citizen journalist a few years ago. But from the MAS MH370 event, by far valid information about lost, I'm afraid, is no more than 1000 words. Today we still need professional media counter Internet we-media. Press and publication management department should give more freedom, and the public opinion pressure of the National Network Information Office will be much smaller.

7. Shifting cyber governance to social governance and scientifically looking upon the purpose of cyber governance. Local governments usually focus on the hot spots of Internet and quick resolve of pressure of public opinions. But we should also recognize that Internet is the outlet of the society, which is not the quieter the better. Sometimes if Internet is quiet, the street will not be stable. Internet reduces the people who appeal to higher authorities for help. And the opportunity to higher authorities will reduce the people go street to protest. All these are deeply felt by cadres

at basic level. Internet should be an ecological system, which government should not play full role as the policeman. We should enable all social class to express their appeal through Internet which is a public platform, and form a transparent, fair and counter-conflict system of interest appeal and game. Left and right, in and out the system, and elite and grassroots, they all have the ecological balance. No matter which part is suppressed, it will not be good to the whole society. Internet should be supervised collaboratively. I think we should supervise the platform rather than the content and netizens. Developing Internet united front should balance the community, which has been explained in the Central Platform Working Conference. It is hoped that the Internet can make consensus and avoid cleavage. Internet is the best gift that God gives to the Chinese. We should promote the formation of citizen society. Sometimes, those netizens who get the power of speech at first are not willing to dialog under the same roof. Internet keeps us distance from citizen spirits. Today's network supervision should both show the sword and develop consensus at the same time. Showing the sword is to carry out the public opinion supervision, clear the harmful information, correct illegal speech thought. In the final analysis, we still have to develop consensus in the community. Internet is not a simple problem-solving department. Management of the fundamental purpose is to win the hearts and minds of people. In the final analysis, the management of network is to create a good atmosphere for 510 deep reform measures proposed at the two plenary session of the Central Committee to develop consensus in the community, to inspire national spirit, and not to exacerbate social tear. Social transformation, which has not started or has just started, will fall into social ideological confusion and in the ideological disputes and mishaps of people. The so-called active Internet public intellectuals are at the low level of the knowledge pyramid, academicians of Chinese Academy of Social Sciences, Chinese Academy of Engineering, and Chinese Academy of Sciences, and the committee members are all not on the Internet. They may have their vest, but do not voice publicly, so their voice cannot be heard in time. As a result, we should channel more educational resources. The most valuable of the media is the professional periodical resources. We should build up the culture coating of the Internet, and cultivate the flexibility of the Internet culture.

*Translator/ Hong Kailun*

# China Development of Social Efficiency and Construction of Social Governance System

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China's development of social efficiency, the public's satisfaction degree with the development of China, which is a comprehensive description of the economic growth, political stability and people's happiness, reflects the effect of China's social governance. Based on research and analysis on China's development of social efficiency, in combination with discussions during Shanghai Forum, this paper aims to study China's construction of social governance system and put forward suggestions for Shanghai's innovation of social governance.

## ***I. The Current Situation of China's Development of Social Efficiency***

The Research Center of Communication and National Governance at Fudan University issued "2014 annual China network social development efficiency index report" on the basis of long term tracking of Sina Weibo users covering multiple professional and social groups which measured Chinese Internet users' sense of security, comfort, identity and development. The Center combined the report with discussions concerning Internet governance and cyberspace in Shanghai Forum and found that China's development of social efficiency has characteristics and hidden problems as follows:

1. China's network social development efficiency is positive, showing a trend of strong development and strong recognition. But there is tendency of public opinion orientation and irrational expression.

The analysis of data on China's development of social efficiency shows that China's network social development efficiency is positive. Rationality is increasing in power and has been in dominance. But today's Internet media is based on social media, where selective recognition is intensifying users' bias. On the whole, Chinese netizen shows recognition in terms of existing systems and social conditions, has a fairly good experience in the aspects of safety and comfort, and also shows confidence in the future of individual and social development. Four two stage indexes are all positive, with identity index ranking highest, followed by the development index, while safety index is the lowest, showing a trend of strong development and strong recognition.

2. Chinese Internet users' overall evaluation of existing systems is positive, with a strong sense of political trust. But it needs to be more

based on China's issues.

In recent years, the outbreak of many group conflicts has been attributed to the conflict between the people and the government. As an important expression channel, however, the Internet seems to be filled with negative emotions and evaluations of the government, which may be one of the reasons causing the negative energy of the network society. But the index of China's development of social efficiency indicates that the public's social political recognition is on the whole positive, which means Chinese Internet users have positive overall evaluation of existing systems, relatively high recognition and a strong sense of political trust. The discrepancy of political recognition index among Internet users of different regions, generations and influence is not significant, while gender and social group type have great impact on it, with lower political recognition index from male group and the bottom of society. On the Internet, there is a structural defect on social issues, which is probably an element leading to negative emotions of netizens: people's concern and discussion of social topics are not really grounded on China's national condition, but rather the specific events, so it is easy to create a gap between the government and the people in the process of information dissemination and development and hard to form a consensus on specific issues.

3. China's network society shows a limited positive efficiency. The social security and the environmental comfort need to be improved, the social group gap needs to be reduced

China's network society shows a limited positive efficiency but still need to be improved. On the one hand, the social security and the environmental comfort indexes are negative, on the other, the bottom of society generally show negative social efficiency, and the social efficiency varies significantly between different gender and social groups. One trait of current social pattern is intergrowth: the intergrowth of various stakeholders with different value appeal. Sustaining positive social efficiency is needed in public opinion guidance, economic development and social stability. This calls for the government to give full play to the social strength of different classes and groups in China.

## ***II. Construction of social governance system with people's livelihood as its value orientation***

From the results of China's network social efficiency survey, we can see that the improvement of social efficiency depends on resolution of problems concerning people's survival and life as well as narrowing the gap between different social groups. It means that China's social governance should innovate its system with protection and improvement

of people's livelihood as its value orientation, so as to ensure social security, protect people, especially vulnerable groups of social interests and interest expression rights, and promote social equity and justice. The construction of China's social governance system based on people's livelihood includes:

1. The construction of a social governance structure with diversified mainbodies' involvement

Chinese traditional social structure is dominated by the government and the public's social involvement is very low, hence the social structure resulted in a highly centralized social management system. With the transformation of economic structure and social structure, the government failed to provide a full range of public products and services because people's social needs are increasingly diversified. At the same time, diversified stakeholders emerged in the course of social development. The social groups with mainstream public opinion hold social resources and the right of discourse. Therefore they have affected the fairness and equality on the government's distribution of public goods and services. We can conclude from that that social governance relies on not only government management, but also social organizations' participation to ensure the comprehensiveness, fairness and equality in offering public goods and services. In network society China should learn from the US in following three aspects: firstly, partnership for public service; secondly, socialization; thirdly, cooperative ability between various levels. It is a weak point as well as a basic aspect in our Internet society. Thus social governance should form a pattern led by the government while participated in by multiple social organizations and residents.

On the one hand, the government should actively support the growth of non-governmental organizations as a bridge between the government and the public. The development of China's current social organization is still relatively slow, and the government should adopt tax incentives and financial subsidies to support them. At the same time, the government should relax the restriction of social organization activities, support economic cooperation organizations and interest expression organizations for vulnerable groups in order to improve people's livelihood. On the other hand, the government should guide the citizens to participate in social governance, safeguard and protect their legitimate rights and fundamental interests. At present, China's public participation in social governance is still relatively low, the government should strive to perfect the regulations, foster public awareness, innovate the organizational system of citizen participation in social governance.

2. Innovate the system of resolving social contradictions

China's social development has brought about new social contradictions, and the source of those contradictions is people's livelihood. For example, uneven income distribution leads to low income groups' demand for basic social security and an even income distribution system; slow development of social undertakings leads to people's demand for education, culture, health care, sports and other public services; Household registration system leads to floating population's demand for equal treatment with local residents. The solution of those contradictions depends on the government's reform and innovation of the existing social system. The government should improve the social stability risk assessment mechanism of major decision making, improve the hearing mechanism of cases for administrative reconsideration and mechanism of solving people's reasonable demands timely, so as to innovate the system of preventing and solving social conflicts effectively. However we should note that the thorough solution of social contradictions lies in institutional reform and innovation including: the government actively promote financial transfer payment system, social security and welfare system and household registration system .

### 3. Improve public security system

At present, Chinese society is facing an unprecedented, multi - level, multi - domain and diverse social security problems. Some highlights are frequent occurrence of large scale mass incidents, food and drug safety incidents, work safety accidents and fraud cases, strong social hostility and continuous rising of violent terrorist incidents. Those safety problems have greatly hindered the development of China's social efficiency. It is urgent that the government establish sound social security, food and drug supervision, safety production management, disaster prevention and mitigation, network and information security systems.

Besides, with the fast development of information technology, the protection of public security is no longer a simple combination of relevant departments. It calls for government departments to take into consideration information dissemination, conduct risk assessment of security incidents in light of the scope and effect of information dissemination and adjust emergency plan, and establish a three-dimensional, dynamic public security system.

When we observe the efficiency index and the Chinese society through the network society, we can foresee the development of network management and expect a better public security system. Both the participation of multiple institutions and the existence of power dependence between various groups will change our original concept of social governance. But no matter it is central government or local level, the rule of law itself, as

governing means, should be more legalized and transparent.

### ***III. Suggestions for Shanghai's innovation of social governance system***

In the report, Shanghai's combined efficiency index is higher than that of Beijing and Guangzhou, indicating relatively good positive efficiency. But as a special city with the largest urban population, there are a lot of problems in the course of its development. The following aspects should be implemented realize the innovation of social governance according to this paper:

#### **1. Strengthen basic level construction to meet people's needs of public services**

During its development, the layout of Shanghai's urban and rural area has been dramatically changed. The center continue to expand outside the boundary;; a variety of community forms came into being in suburban area; the hollow phenomenon appears in exurb area. Those phenomena lead to serious public service deficiency, which urgently calls for innovation of social governance based on the actual situation at the grass-roots level. Shanghai Municipal Party Committee put forward "innovating social governance and strengthening basic level construction" as its major research topic in 2014. The research found that public services and management provided by Shanghai city government was severely absent in partial area and realm. Community governance and autonomy level is not high; mobilization ability of social power is not strong.

Currently, the Shanghai municipal has issued a paper, "Opinions on Further Innovating Social Governance and Strengthening Basic Level Construction", and six other supportive documents including deepening the reform of street system, improving the management system of residential areas, improving village level governance system, deepening and expanding grid management to improve the city's comprehensive management effectiveness, organizing and guiding social forces to participate in community governance, and regulation for community workers management. Those documents are launched with the goal to resolve some serious problems like settlement of street mechanism, construction of grass-roots forces, governance resource allocation, and basic fund of primary-level organization reaching the minimum. The above policies have yet to be tested in practice. At this stage, the government should encourage and promote innovative practice of grass-roots level social governance to provide empirical support for theoretical research. Secondly, we should establish evaluation system of the public services in basic level construction, in order to inspect the effect of social governance in Shanghai and constantly adjust the implementation plan.



2. Strengthen the construction of the people's livelihood security system, to protect and improve the livelihood of the people

At present, Shanghai has some outstanding problems such as high prices, high housing prices, high medical expenses, structural unemployment, the huge gap between the rich and poor, a lack of pension facilities and services, poor community environment etc. Therefore, the Shanghai municipal government should stabilize the market price with the use of market regulation and government control mechanism and improve the livelihood security mechanisms to cope with rising prices; expand the coverage of affordable housing orderly and improve the supporting services around large residential communities; carry out policy guidance and create employment opportunities for college students and disability groups; accelerate comprehensive reform of public hospital system and promote the combination of medical care and supporting of the old; press forward the reform of income distribution system and improve the social security system.

3. Improve the urban security system, maintain social stability

The stampede in December 31st, 2014 exposed the problems in the existing urban security system in Shanghai City. They are the government's under-assessment of urban development and security risks, institutional defects in organizational security system, insufficient allocation in multi-level security forces and so on. On the one hand, it depends on the government to improve the urban spatial layout, take a full consideration of the bearing capacity of urban key areas in order to improve the construction of governance infrastructure. On the other hand, the government should improve the security system, establish a sound security monitoring system, develop a scientific security process, and strengthen the construction of security team.

*Translator/Zhao Chengmei*

# Urban Governance and National Competitiveness

Zhou Weilin, *Urban Economic Research Institute, Fudan University*

According to the goal of Shanghai to become a global city by the year 2040 and 2050, Professor Zhang Xueliang of Shanghai University of Finance and Economics, proposed that we might as well think about how to build a global city from the view of relationship between Shanghai and the Yangtze River delta group. Today, Shanghai's GDP has been 2.5 trillion, but the amount of economy cannot tell the whole story what's more important is the flow of information, capital, technology and other traffic control, in order to improve the ability of global resource allocation. The GDP of Yangtze River Delta is 12.9 trillion RMB, which is equal to 2 trillion dollars. What is the inner link between the global city and the global urban area in the next 10 years, 20 years and 30 years? It involves the relationship between city and city, the relationship between people and the city, and the relationship between people and people.

The construction of global cities and the global urban areas calls for the cooperation between cities. Gathering different levels in the same geographic area generates considerable benefits. The link between them is achieved by informationalized and urban integration. The wide application of information technology has penetrated into every aspect of life in cities and urban areas. In 2050, Shanghai should be an intelligence-driven city, which embodies the integration of people and people, people and the city, including the urban integration of traffic travel, industrial layout of the city. In the changing process from rigid administrative system to networked global regional system, the issue of city population, the city's population capacity and quality should be considered in the global urban area, and obviously it is far from enough to confine Shanghai to over 6000 square kilometers from the perspective of governance, to address the issues of traffic and immigrant integration, Shanghai should cooperate with surrounding areas to march towards a global city.

Shanghai has become an important international investment city. Ten years ago, Shanghai ranked 190, and now ranks 11 in the world. In the next 10 years Shanghai will be more attractive. Then what makes Shanghai different? Stephen Barter, Consultant chairman of KPMG real estate, believes that if a city in the world wants to be more competitive, it demands cognition and confession of the place, which is very important. The evaluating indicators for the competitiveness of a city include supply

of labor; interconnectivity in and out of the city including information accessibility, trade convenience, the credibility of the contract and legal justice; sound governance namely institutional strength and the actions of decision makers, which represented by leadership of decision makers and standards of industry associations; quality of life is important, which reveals the preference of living and shows the quality of public health, education and culture. The best touchstone is the vitality of city. The London City, for example, has encountered numerous problems during hundred years of development history, but it was able to move forward by getting them over. Shanghai now faces the similar challenge and flexibility can be the touchstone.

A City is the place where people meet, live, work and entertain. It should be well governed to make it become a place where people would like to stay. The main reason for people to choose a living place depends on the whole family. How to make people identify themselves with the city? Architecture is the first impression to recognize a city, and values attached with the buildings are able to inspire ordinary people's nature instinct. The most common way is to recognize the public space and then consider the private living standards. In many people's impression, Shanghai is a modern, highly international city with elites from all walks of life. For people who live in Shanghai, they have been intensively influenced by modern technology. Shanghai needs to deal with several challengeable tasks: preserving historical communities while remaining Shanghai element; addressing the issues like high house prices, traffic congestion and air pollution. The challenge for Shanghai is whether its attractiveness could make talented people stay.

Professor Junfu Zhang from Clark University proposed to build a smart city. He took two American cities as examples to show how to use smart phones and internet to improve city governance. The first example is San Francisco's SFpark. SFpark's idea is to solve the problem of parking in the city. The reason why the downtown always congested is that a lot of people are driving back and forth in the city for a parking place. Parking in the United States is nothing more than two kinds of methods, the charging parking lot or in the street. Parking in the street is not free, and there is a big price difference. If you park the car into the charging parking lot, the fee would be only \$12, and with half an hour over, plus another \$6. What about the price of a street parking? The streets in Boston are \$1.25 an hour. Because the street parking can save a few dollars, so many people choose to park in the street resulting in 30% to 40% cars driving around. What SFpark do is to bury a line under each parking lot, So it is easy to detect whether there are cars parking there, and the driver with the APP can see where there is a car, and the price of parking, and is

there any place near the parking lot, It saves people's time to make quick decision rather than looking for park lot. Now there are less people finding a parking lot in the street. The other example in Boston is called Citizens Connect, which has become the informers of the municipal government. If citizens happen to see the streetlights have gone bad without a repair, an untidy house or the grass around untrimmed, they can take a picture and send it to the government. Then the government officials can solve these problems by gathering the information. In fact, Shanghai also introduces big data method into city management, such as Shanghai wechat, blog and government information publication, which is still a long way to go.

Professor Wen-Chi Liao, from National University of Singapore, shared the experience of Singapore in globalization and urban construction. Since Singapore was founded, it has been in continuous pursuit of globalization due to its resources. Gathering the universal talents matters for a global city absorb the wisdom of the world elite, and it is the center of the global economy which can exert a considerable influence on the global economy. It can easily cause the threat of social differentiation, because there are relatively disadvantaged groups in any country, and they are more easily to get hurt. How can we protect them? As a small island city, this is exactly what they must be cautious about. Singapore's urban governance is to strengthen the competitive advantage, basically via the concept of innovation, especially technological innovation to enhance national competitiveness, and create a suitable environment to prevent the negative impact on the local level. If the city wants to maintain the competitiveness of globalization, it is necessary to attract talents and calls for good quality of life. Singapore is a garden city, which focus on park constructions and network building. The green environment has surrounded all the people's lives. Another achievement of Singapore is the energy saving and emission reduction, as a leading role in the world. In 2013, the government of Singapore has put forward the law of energy saving. In 2014, the administrative law of green building was proposed and enacted. The new buildings were required to follow the new regulations while the old ones were reconstructed. Singapore's 85% residents live in the public houses, which has renovated and reconstructed to maintain good environment. The concept of Mr. Lee Kuan Yew is that people should have their own houses and good environment to live. Without all above, it will lead to social differentiation and the citizens will be unwilling to let next generation to guard homeland. Therefore, it is necessary to maintain the environment for people to live.

Professor Zhao Lixia, Director of the Center for Urban Studies and Planning of University of Hong Kong, introduced the management system in Hong Kong. Housing as an important component of a metropolis,

which affects people's life quality and urban competitiveness as a whole. Hong Kong upholds free economy, and follows a market-led rule in the residential consumer system. Real estate market is allowed to make decisions by itself, therefore manufacturers, developers and buyers have the rights to make their own decisions. The land property belongs to the Hong Kong government that plays a leading role in the policy-making, while banks are also vital in it. The government would intervene in need but the market owns the final say. The Policy of Public Housing has solved the residential problem of more than 30% people in Hong Kong. The construction is outsourced to the construction companies, and the government is only responsible for the supply. The advantage is that the profits generated by the economically affordable housing can be used to subsidize public rental housing. From the perspective of urban governance, public housing is mainly provided by the government, in fact, other nonofficial participants, including, are appointed to the board of director including economists, accountants and the community members, as well as the organization of political interests, who were appointed to the board of directors. Thanks to such an open governance structure, the quality of public housing in Hong Kong is reliable with comprehensive facilities. The Financial Department has interventions in private operation, and Housing Department will monitor the entire housing market. The interest rate is not controlled because the HKD is pegged to the U.S. dollars.

The role of the mainland government is different. Which is the most efficient way to meet the needs of people? The government directly provides public rental housing to ensure the supply. The Chinese government promotes the privatization of residential house, so that it brings the guarantee of the assets value. In other words, once you buy a house or an apartment, the value of assets will increase with the economic development which can be the welfare for the aged. There may be other relevant welfare like insurance, pensions, etc.

Professor Ning Yuemin from East China Normal University discussed the city's governance from air quality by adopting an analysis of time and space factors on China's urban air quality. He has calculated two indicators based on the data of Ministry of Environmental Protection in 2014. The first one is pollution rate, which calculates the proportion of days with air pollution in a year. Now the serious polluted areas in China mainly located in North China Plain, Weihe River Plain, including a number of cities in the Yangtze River and Urumqi and so on. Southeast coast and the Yunnan Guizhou Plateau have better air quality with relatively undeveloped industrial scale. There exists obvious difference in urban air pollution between the north and the south. The second indicator

is an average index of the air quality of 161 cities. Due to his research, Maoming, Haikou and Sanya lead in air quality as excellent, and most of the coastal cities are good. 49 cities suffered air pollution, among those North China Plain becomes the most serious air polluted region.

The main factors are as follows. China's rapid industrialization and urbanization in the past 20 years, is the main cause of air pollution. Energy structure is mainly based on coal (66.6% in 2012), which occupies a high proportion in the energy consumption. This is a long-term phenomenon, which led to air pollution that is difficult to solve in a short time. In addition to coal, other industrial sectors that easily lead to pollution emissions are important pollution sources. Vehicles, dust especially construction dust become the main cause of PM2.5. There are other factors, such as topography, geomorphology that Sichuan Basin is a typical example. Season and climate can also impact the air quality, for example, pollution in Chinese cities gets most serious in winter because smog is blown from the north to the south but it turns better in summer for the southeast sea wind prevails. Sometimes the air quality would be influenced and controlled in light of official events, e.g., the weather in Beijing is relatively good during APEC summit. China's urban environmental problems are very prominent, which does not happen regionally. The situation in north part is worse than in south.

*Translator/Xiao Meng*

# Public Health Security and Urban Sustainable Development

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With a high concentration of population, industry and wealth, city is the most concentrated and active area of modern social economy, and works as the main place of modern social life and production. Cities have been experienced rapid development, while at the same time they also face unprecedented challenges from security issues. To tackle challenges from frequent and intensive natural disasters, emergent public health accidents and biological terrorism threats, it is imperative to promote capability building to respond varied public health emergencies.

There are growing demands for urban public health safety as cities play an increasingly important role. There are several major public health emergencies happened in recent years, such as Tokyo subway poisonous gas accident, “10 .11” event in US in 2001, SARS outbreak in China and other countries in 2003, London explosion accident in 2005, Ebola in West African countries in 2014 and MERS in 2015. These previously public health tragedies remind us that we have entered the peak of public health emergencies which are inevitable. Therefore, it’s particularly important to focus on urban public security and carry out researches to find solutions on public health emergencies

Besides natural disasters such as earthquakes, tsunamis and other natural disasters, the urban public safety is also affected by many factors like politics, economy, society, culture and so on. Megalopolis with millions of population is doomed to face a more serious security challenge. Especially Shanghai, which is characterized by large population, high density, numerous high buildings, concentrated industries and large volumes, is bound to face severe pressures and challenges from issues like social security, public health and safety, fire safety, elevator safety, urban traffic safety, energy security, chemical dangerous good safety, terrorist security and so on. This paper will focus on the relationship between public health security and urban sustainable development.

## ***I. Urban public security and public security system***

### **1. Urban public security and management scope**

Urban security refers to a dynamic stability of ecological environment, economy, society, culture, human health and supply of resources, and the ability to resist disasters. As a necessary condition for the sustainable

development of a city, urban security ensures urban economic, social and ecological stability and safety, which further facilitates the sustainable development of a city.

Public emergency is a sudden crisis which will cause or may cause significant casualties, property damage, ecological environment damage and serious social damage, and endanger public safety. According to public emergency process, nature and mechanism, it can be divided into four categories, namely, natural disasters, accidental disasters, public health events, and social security events, such as climatic natural disasters, complex natural disasters, fire, toxic gas leakage, nuclear leakage, traffic accidents, infectious diseases, explosions, murders and so on.

The scope of urban public security management covers four aspects including production safety, public safety, food safety and public health safety.

## 2. Urban public security system

The urban public security system is composed of two aspects. One is the daily management system dealing with daily city safety problems. Another is the crisis handling system mainly for handling of sudden crisis and corresponding public safety issues. Only combine the urban daily safety management and crisis management, can we build a well-organized public security system to protect the urban safety.

### (1) Daily management system of urban public safety

Public safety daily management system refers to an integral entity involves government administrative departments, relevant social organizations and citizens to prevent and resolve public safety events before they happen. It's composed of five major systems, including organization management, hazard installation management, target detection, educational training as well as rescue and safeguard.

### (2) Crisis handling system of urban public safety

Crisis handling system of urban public safety refers to a series of operations that turn daily management system into emergency, rescue and recovery after public safety events occur. The system should include: the emergency command system, the start-up of information release platform, emergency rescue team, aftermath handling and so on.

## ***II. Urban public health security and sustainable development***

### 1. Public health emergency

With the development of economy and the progress of the society, the resident average activity space is growing, and resident aggregation



and mobility also increase. This change of social activities significantly promotes urban economic development and social progress, but in the view of public health, this kind of change in social activities aggregate risks outbreak and spread of infectious diseases, especially in the cities with large population mobility and density, which means a higher possibilities of public health emergencies.

Public health emergency is an event concerning public health that occurs suddenly, which causes or may cause serious public health damage, such as major epidemic outbreaks, group unknown diseases, severe food and occupational poisonings and so on. Generally speaking, these events are unexpected and unpredictable, because it is a public health issue that focuses on not a specific person, but a unspecific social group. The emergency damages or impacts public health to a certain extent, that is, the event has caused serious damage to the public health, or it may cause serious impact on public health from development trend view. Urban population density and large mobile population result in a wider range influence and great loss of public health events, causing social panic and serious damage. Public health emergencies are often related to illegal and irresponsible activities. At present, global public health events have shown characteristics of large scales, serious losses, broad influences, high-profile concerns, complex reasons, and new infectious diseases.

## 2. Relationship between urban public security and sustainable development

As a highly intensive society, a city is closely linked and mutually influenced by various components. We must correctly deal with the relationship between men and nature, ensure city's public safety and provide beneficial resources and environment to city development to achieve a stable and healthy social economic development.

(1) Urban public safety is the basic condition for city sustainable development.

Along with global population, resource and environmental issues become increasingly prominent, city sustainable development has become a common concern of the whole world. A city is a highly populated area where people frequently engage in economic, cultural and politic activities and it is also vulnerable to ecological and environmental damage. The key idea of sustainable development is to coordinate the relationship between human, natural environment and resources, to ease the conflicts between them, to reduce environmental negative effects on human, and to meet the needs of contemporary people and protect the interests of future generation.

(2) Urban public health safety events are closely related to urban development

Urban population is so intensive and mobile that once a contagious disease outbreaks, it's extremely easy to spread quickly in the crowd. Furthermore the popularization of modern transportation tools accelerates population mobility and activity scope, so that infectious diseases can spread rapidly in every corner of society, resulting in social and economic losses. From the perspective of social development, infectious diseases have been heavy burden for developing countries. Besides the traditional factors, the increasing population density and long distance flight density have also contributed to the outbreak and spreading of infectious diseases in city. Direct or indirect contact with infectious diseases is bound to accelerate infectious diseases' transmission speed, and long-haul flights increase the risk of the disease input and output, such as SARS, MERS and other respiratory tract infections. For an international metropolis like Shanghai, with its rapid economic development and large population flow, high entry and exit population increases the risk of infectious disease importation and exportation, as well as its coping pressure. In addition, along with the rise of oil industry and mining industry, a large number of toxic, harmful chemicals and pesticides have been synthesized or produced. As a big country of chemical production, use, import and export as well as consumption, China accelerates its urbanization, to a certain extent, causing these toxic, harmful chemicals and pesticides to flow into the city through a variety of ways, which increases the potential risks of public health events in city.

With high information dissemination, city is the central area of social production, where social activities are closely associated with each other. Once public health emergencies occur, social order will be inevitably affected through a direct or indirect way within a short time resulting in economic loss which cannot be estimated. If emergencies cannot be effectively intervened and controlled, it is possible to cause social crises or political unrest.

(3) Food safety benefits people, affecting city economy and development

Food safety is related to the vital interests of ordinary people. Food security is influenced by food safety, food supply and individual behavior. With high urban population density and large food consumption, food is mostly supplied by market. If food safety cannot be guaranteed by market, residents are easy to buy inferior or unsafe food which threaten their life and property under information asymmetry condition. In addition, food consumption occupies a relatively large proportion in people's daily cost. Solving food safety issue is conducive to stimulating domestic demand,

and facilitating implementation of economic policies. Food development can be divided into survival, nutrition and safety stages. China now is in the third stage. China's food safety supervision confronts with problems such as particularity, complexity and sociality. Particularity is decided by Chinese national culture, and complexity refers to large varieties, wide ranges and considerable quantities sociality means that food safety problem is a professional problem while it becomes the focus of social attention which raises common concern of both professional and amateur. Ensuring not only facilitates the development of food industry itself, but also promotes urban economic development. In many cities of our country, food industry has become the pillar industry, and the development of food industry is very important to realize the sustainable development of urban economy. Therefore, food production and processing must be people-oriented, and food quality and health safety must be effectively ensured.

(4)The establishment of urban public security system is the urgent demand of urban sustainable development.

The outbreak of SARS in 2003 brought an unprecedented impact on our society. It also made people realize the urgency to establish the public security system, and the fragility of the modern city. The urban crisis may happen at any time, and any emergency may become a disaster. To reduce risks and improve a city crisis bearing capacity, we must re-examine our city public security policy, set up government crisis management mechanism and improve the government crisis management capability Relying on a reasonable public health system and strict law enforcement, Hong Kong and Macao has weaved public health emergency response team and emergency management into basic public health work, which helped them to achieve sound accomplishments. After Fukushima nuclear leakage, the Japanese government enforced evacuation mechanism, which effectively reduced its impact to residents. Increasing public participation in the entire event processing and management through effective health education, psychological intervention, population screening, information disclosure and other means can effectively reduce impact and danger of emergencies.

### ***III. The response of urban public health safety events***

Urban public health safety events are directly related to public health, economic development and social stability, so it gets increasingly social attention. The government's capability of preventing and controlling public health emergencies has become major indicators to assess government performance and social progress. When a public health incident causes harm to public health, effective coping response

system is essential to ensure rapid response, correct decision and decisive management, which can safeguard people's health, economic development, social stability and national security to the utmost extent.

#### 1. main problems of urban public health system in China

Since the outbreak of SARS, remarkable achievements have been made in China's public health system, but it still lags behind the development of economy and other social undertakings. The contradiction between the health care service system and people's growing demand is significant, especially in Shanghai, a metropolis with large population and serious aging problem.

First, the public health system is unsound and the task to prevent critical illness is arduous. The basic principle of health work in China is to adhere to the prevention as the first, which is the primary task of health work.

Second, the mechanism of public health emergencies is not sound. In addition to the spread of infectious diseases, public health emergencies also include sudden natural disasters, major production safety accidents, as well as serious food poisoning. All of these require a city public health emergency disposal mechanism for improving capability to handle public health security crisis.

Third, resident health needs is not adapted to urban medical service system. Although our urban medical service system has made a great development, there is still a big gap between people's health needs. The problem of medical treatment is that inaccessible and expensive has not been solved. At the same time, many large and medium cities in China are entering aging society, which leads to a significant increase in the prevalence of chronic diseases and growing burdens. With higher life expectancy and increasing prevalence of chronic diseases, the healthy life expectancy is decreasing. Traditional health system, which focuses on acute onset and treatment, cannot cope with the growing demand for elderly health services and chronic disease management.

Fourth, the urban health management system doesn't adapt to people's health needs. Medical and health resources in many cities are affiliated to different departments, industries and enterprises, causing city health department hard to carry out effective supervision on the medical and health resources of the whole city.

#### 2. specific measures of urban health system building

First, the construction of urban public health institutions should be strengthened, and the protection mechanism of public health services needs to be improved. The construction of urban public health system supports public health system building, and a stable public health service

investment and growth mechanism should be established with gradually increasing the proportion of total public health expenditure.

Second, public health emergency response mechanism should be improved, and health emergency treatment should be strengthened. Since the outbreak of SARS, according to the requirements in Regulations on Public Health Emergencies, many cities in our country have set up a health emergency treatment coordination mechanism, which clarifies responsibilities, establishes regulations, organizes coordination and standardizes emergency treatment. On the basis of above, it is necessary to further establish the emergency material reserve, security and training mechanism to ensure emergent management of public emergencies.

Thirdly, the prevention and control of major infectious diseases should be strengthened, focusing on control of AIDS, viral hepatitis, tuberculosis and other major infectious diseases.

Fourth, emergency response network should be improved. The network command center for urban public health clinical center of infectious diseases and treatment need to be established and improved, networking the city emergency command center, so as to achieve the disease surveillance, prevention and treatment, and to further improve the urban infectious disease control and treatment capacity.

Fifth, the reform of urban medical system should be deepened, and the hospital management needs to be strengthened, so as to improve the quality of medical services. Since the national health care reform in 2009, the reform of urban medical service system has made some progress, but overall, the effectiveness is not obvious, there are many outstanding contradictions and problems. For example, public welfare has not been fully reflected in public hospitals operating mechanism, social resources can't be freely used in medical services, medical service lacks supervision, community health service development is slow, residents still have difficulty in accessing to quality medical services, and medical bills remain expensive.

Sixth, Shanghai, a large city with aging population, needs to increase its financial support to community health services, improve the existing community health service system, expand the coverage of medical insurance, in order to meet the urgent needs of the elderly health care and ensure accessibility of health care.

In the context of rapid globalization, we must consider the problem of urban security in the perspective of globalization: the crisis would happen in global level, the globalization of crisis spread, and the globalization of crisis early warning and response. With the increasing globalization

of social and economic life, as well as a more open environment, China's economy is more and more integrated into the world, leading to more frequent international exchanges. As a frontier of China's economy, Shanghai is the experimental area of China's reform and opening door policy, opening a new chapter. It also works as the hot spot of global economic and cultural exchanges, and an important gateway to the China's development which urges its stability, security and sustainable development. When Shanghai integrated itself into globalization, the rapid development of foreign trade increased the pressure of port health, facing a new challenge of strengthening the monitoring and prevention of infectious disease importation. It is also the responsibility of Shanghai, an international metropolis, to prevent domestic epidemic exportation. At the same time, in the process of rapid development of urban economy, the increasing population density of Shanghai has brought favorable conditions for rapid spread of infectious diseases, and the growing urban aging population has brought new problems and challenges to urban development and urban health service system.

In a broader sense, urban public security also includes polarization of the rich and the poor, psychological security caused by employment pressure, intensive social conflict, and worse social security situation and so on. At the same time, the change of age structure will also lead to the conflict between different age groups in the sharing of social development resources.

Above all, as a performance of social progress, urban development is protected by urban security. In order to improve the public safety factor, it depends not only on the subjective efforts and scientific decision of the city management, but also on the cultivation of citizen's safety awareness and cooperative spirit, and sustainable production and life style, fair and harmonious social system arrangement.

*Translator/ Wang Hui*

# Financial Innovation and System Construction as Catastrophe Risk Responses

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## ***1. Tracing to the beginnings to reduce the impact of catastrophes***

China is a country with frequent disasters, with 70% of its cities suffering the attack of natural disasters like flood, typhoon, earthquake, etc. Those catastrophes have caused great financial losses that to an extreme extent encumbered the progress of economic growth and urbanization. However, rational risk management can reduce the impact of catastrophes from the very beginning.

### **People's Participation Reduces Catastrophe Risk at the Source**

The management of catastrophe risk should draw people into decision-making. There are two reasons:

Firstly, the catastrophe problem is a disaster problem, and it is a regional issue. For instance, 85% to 90% of victims of an earthquake are saved by their close neighbors, whose participation have congenitally expedited the rescue; since people of the disaster area knows well about local circumstances, encouraging them to involve in the discussion of post-disaster problems and think beyond the single community will contribute to the reduction of catastrophe risks.

Secondly, it is important to distinguish clearly between the primary and secondary participation in risk management, and response to the rescue work in a top-down approach. It is also necessary to ensure the full public participation and motivate mutual interaction between inside and outside participants, based on the combination of government and the people.

## ***2. Applying financial tools to response to catastrophe risks***

In the process of dealing with catastrophes, catastrophe insurance has always been the traditional choice. During the practices, we have gradually probed a set of new approaches, developed new ideas, expanded new markets, utilized new methods, and exploited new channels. The detail is introduced as follow:

### **New approach: index insurance quantifies catastrophe risks**

Index insurance refers to using quantity computation to quantify the so-called coping strategies for reducing unnecessary costs. The primary advantage of this approach is that with index serving as a trigger point, it can reduce moral risks and adverse selection of traditional insurance.

Besides, it doesn't require rapid compensate in accordance with actual losses within the first hours of the catastrophe. Until now, most design of catastrophe insurance system adopts index compensation mechanism.

In programming the index model, the first thing is to get rid of complicated factors so as to ensure the availability and integrity of the data. It allows us to analyze relevant information of natural disasters and the losses from an overall perspective. Thus we can gain a general knowledge of the distinguished vulnerability, disaster categories, ability and risk exposure of different areas when they face natural catastrophe.

Building a parametric insurance accounting system based on those data can not only convince people to add insurance to events with high risk probability, but also can relief the insurers from the burden of point-to-point loss assessment. They can just refer to relevant major parameters to verify the losses, which can raise the compensate efficiency. Unfortunately, parametric insurance is now of low applicability and its validity is strongly depending on previous data collection of a certain disaster and its target losses. In addition, the degree of relevance, parameter and correspondence is still under consideration and assessment.

#### **New ideas: dispersing and layering the commercial insurance and securitization of catastrophes**

Number one, the dispersal mechanism of commercial insurance aiming at catastrophes includes direct insurance, reinsurance and securitization of catastrophes. It is built on the basis of calculation, which require make an assessment according to losses of possible disasters in different areas across the whole country and make pilot projects.

Number two, the layered structure is a mature experience practiced by the international society for catastrophe insurance. Different layers have different functions, set up different proportion of risk distribution, and contract different triggering conditions.

Number three, catastrophe securitization severs as a new-type approach of risk diversification, through which capital flows to markets to take risks. It has three major stages: oversea establishing and issuing; oversea establishing but domestic issuing; domestic establishing and issuing.

#### **New market: insurance asset securitization helps catastrophe insurance to thrive**

Our country has a multi-level capital market, including stock market ( main board market and growth enterprise market), internal financial futures market, regional equity market, and private market. In the quotation system of private market, insurance companies are major participants. The quotation system has provided a valuable stage for



insurance asset securitization,

Insurance companies can use their money in the quotation system in private market for investment in innovation ( of products that related to catastrophe insurance securitization), for client agency, and for project display, etc.

Nowadays catastrophe insurance securitization in our country is gradually promoted. The SAC (Securities Association of China) has signed relevant agreements with Insurance Institute, and has established a special research team to design the next step to strengthen experiments and popularization.

#### **New method: forward contract and capital financing of tax fund pool**

Different countries suffer from different catastrophe risks which causes interactive changes to life risk. We can assume the different death rate based on this linkage change, and after observing the data we can conclude that there's an oriented correspondence among those death rates. As a result, we can use one country's death rate to speculate another ones. The specific financing operation are as follows: using the contract as a way to offset one's losses in one country by his earnings in another country, which equals to a forward contract that reverses the risk exposure and the actual situation and forms risk hedging.

Another financial approach is to build an available capital pool based on taxation. Insurance companies don't have to pay taxes at the end of every year. Instead, they can pay taxes when it comes to an end of a certain period or a contract term. When a catastrophe strikes in a long term like twenty years, the insurance should compensate, but if it happens within certain fixed critical point of death rate( like 0.9%) , then the company doesn't have to pay the tax.

#### **New channel: Internet insurance scenarios push forward catastrophe insurance**

What's the definition of Internet+ catastrophe insurance? Government insurance and financial institutions use the Internet to complete organizational management of catastrophe protection and provide the whole people with products and information service related to catastrophe insurance——Internet+. Until now, our country has met all the requirements for Internet+, for instance, favorable Internet market, great attention, and mature development of the whole industry.

The basic framework of Internet+catastrophe insurance system mainly lies in using computer techniques like the big data, cloud computing, and information flow to encourage people to participate in solving the unsustainable development of government-undertaken mode under the traditional insurance system. It bonds government, private enterprises,

and financial institute together to take part in new Internet system and commercial activities. It aims at protecting consumers.

In this mode, each of the five major participants is required to play their own roles. The first participant is the government. It should build the legal system; purchase catastrophe insurance products and establish catastrophe risk fund because of its double statuses as initiator and contributor; release plans for catastrophe risk diversification; and enact tax preference policies to arouse people's enthusiasm of participation. The second participant is commercial insurance institute. Its responsibility is to create relevant products and to apply insurance tools in risk diversification and protection. People are the third participants. They should voluntarily accept the government guide and take an active part in the plan of raising supplemental security amount and diversifying catastrophe risks. Or they can participate in the investment of catastrophe bond and stock products as individual investor. The fourth participants are supporting financial institutions. They offer protection for catastrophe risks of middle, small and micro business. The last participant is the third-party platform, whose major duty is to maintain daily exchange platform.

The practice process has two major points. The first one is to ensure the mode of government leading and public participating. It has several steps. Firstly, the government leads the planning mode and guides to set up a fund for catastrophe risks. Secondly, the government releases some relevant policies that benefit the public and encourage people or social enterprises to take part in the risk dispersal mechanism. Thirdly, it is advisable to build a daily operation system while referring to the type of system in insurance exchanges. Fourthly, to guarantee that each insured accident is able to get favorable coverage and people who have already get coverage have access to relevant compensation.

The second point is the pattern of market operation and market observation. Marketization means to accept social with the utmost transparency, set up information issuing platform, bid inviting platform and trade witnessing platform for catastrophe insurance. The ultimate goal is to establish fund releasing and retransaction platform and online disaster prevention platform.

### **1, Institutional Construction as a Way of Managing Catastrophe Risks**

Refer to the risk prevention experiences of surrounding countries and regions and explore the way to build the catastrophe insurance system.

#### **ASEAN way:**

Goldman Sachs believes that reinsurance companies' business mode

need immediate improvement for it is of extremely low reliability and is considered as sunset mode. Unless reinsurance companies effectively test their risk exposure, Goldman Sachs will not offer products and obligation related to reinsurance business.

Recently the ASEAN members are trying to establish a reliable, enduring conservation finance system to guarantee its economic growth. They are commonly short of sufficient capital, which means they can't obtain rational insurance premium from enterprises and consumers. Thailand is a typical case: the three largest insurance companies are reluctant to take the country's business or they would like to increase extravagant insurance premium. The Thai supervisor put forward the basic framework of ASEAN Community, which provided preferential condition and prices by investing in pre-disaster risks.

### **Catastrophe Management Development in South Korea: the Transition of a Case and a New System**

South Korea is an agricultural country. It depends on family or communities' risk sharing while large insurance companies and capital markets also take part in. When a catastrophe comes, the government lays down a regulation and supervises on its execution and absorbs the consequent risks at the same time. However, the executive power of its law is still weak.

Speaking of the sunken accident of SEWOL ferry, according to the contract, the insurance company had no responsibility and the final compensation should have been dominated by the government. However, considering social opinions, the Korean had to make the insurance pay for this accident.

Take the above-mentioned accident for example, it can be said that Korea has suffered from frequent accidents since the 1990s. One reason is that its modernization process has been extremely compressed; the other one is that the whole society is still tacitly approving and selectively ignoring catastrophe risks, which are usually called as non-boundary risks or dim-boundary risks. The probability of an accident multiplies by the expected loss is equal to the risk. The probability is always assumed greater than Zero, so if the expected loss is infinitely great, it will definitely cause a catastrophe.

The Koreans have weak consciousness about risks, and has no strict judicial rule and penalty system. Therefore after disasters, the Korean government set up new department to enhance education of disasters, and also used government financing and social investment to promote a catastrophe insurance management system. Although nature cannot

be controlled, law, culture, economy and technique can affect people's knowledge attitude and behavior toward risks. Enhancing law, cultural, economic construction and elevating technical level enables the country to face disasters more effectively and to realize the sustainable result-oriented development of catastrophe insurance.

### **Experience from Taiwan Insurance Industry: talking from the response**

Taking catastrophe insurance for example, the role of government is not limited to when the catastrophe strikes, and more important role of government is to help to make market regulations. From Taiwan's practical experience, insurance institutes usually put forth efforts in following respects:

Firstly, insurance companies analyze the losses and rate through cooperation with universities and research institutes. Secondly, they could cut down the clients' risks and control the companies' risk through some damage-prevention system with the idea of serving clients. Thirdly, to offer basic premium rate. The companies exploit risk rate by building an assessment model of natural disaster. They also play an important role in guiding clients for risk management by product-design fee rate system. On the one hand, it lowers the price of premium rate; on the other hand, it applies the method of re-insuring to achieve risk transfer, using tools like ART and PPP.

Moreover, the countermeasure of catastrophe risk should be analyzed on three levels. First of all, general commercial insurance should be offered to individuals and companies, for the rate of purchasing individual catastrophe insurance is relatively low and the companies usually require risk management. Some countries and regions provide micro insurance aimed at natural disasters. For instance, Taiwan, Japan, New Zealand and Turkey all have established earthquake insurance funds; the U.S. has set up residence-flood prevention and reduction system, and Hawaii and Florida have established relevant funds; Thailand and France also have insurance system for natural disasters. Secondly, the great earthquake stroke Taiwan in 1999 caused economic losses at NT300 billion dollars, while only NT20 billion of the losses were insured by commercial insurance ( company underwriting), which was a very low coverage. Besides, Taiwan adopts single premium rate for earthquake and the insurance against total loss only. However, since typhoon and flood risks have great regional differences, the popularization of single premium is not feasible. Thus parametric type of catastrophe bond is not suggested for its calculation errors), and the loss-compensation type is highly recommended. Thirdly, risk assessment model is in badly needs. The

insurance center cooperates with universities for setting up assessment model of earthquake, typhoon and flood risks and offer referential premium rate for commercial insurance of natural disasters.

### **The Construction of Shanghai Finance and Insurance Center: the Establishment of Catastrophe Risk Protection System in China**

Catastrophe risk has an important significance for China, therefore it is imperative to build catastrophe insurance system. Catastrophes influence causes great damages to one's personal life, directly and indirectly. As a consequence, it's of vital importance to set up catastrophe insurance system, which meets the requirement at national political and market level.

Traditional disaster management system in China has distinctive features. The history of development is decided by its administrative system: distinguished forms of disaster management bring about distinctive government administration departments. When disasters come into being, the central government mobilizes the resources, while Ministries of Land and Resources, Water Resources, and the Seismological Bureau, Oceanic Administration, and Weather Bureau share the administrative authority. It underestimates the power of market, leaving them with less than 3% of responsibilities. The government exercises strict budget overlooks the institution-building, pays attention to post-disaster reconstruction but neglect management before disasters, salvation amid disasters, and insurance compensation after disasters. Vulnerability still exists in its risk prevention system.

There are three significant benefits of building finance and insurance center in Shanghai:

1. The construction of catastrophe system plays an important role on the development of insurance industry.
2. Shanghai has a special status in China. It was proposed to building shanghai as international insurance center in 2014, one of whose supporting points is establishing catastrophe insurance center. Thus the securitization of catastrophe risks is required to be foundation. As the financial center of China, Shanghai has a fully developed factor market, which is an apparent advantage. And based on this ground, it can use tools of catastrophe risk securitization to allocate risks between capital market and investors.
3. The development of catastrophe insurance requires a complete exterior legal environment to ravel out referred subjects and interest relationship. We should start from the top-down design, specify rights and obligations of all parts and realize the long-term, stable operation of this system.

In addition, we should top the effect of the insurance exchange. We should insurance exchange to play a role, which facilitates the comprehensive development of catastrophe management construction by using all kinds of financial tools. And we should set up the mechanism of risk-taking comprehensively, involving government supports and efforts from all sides. We should also cultivate talents of all majors to satisfy the development of multi-formal insurance. The Shanghai government should base on pushing forward the progress of talent accumulation, internalization, marketization and legislation to capture the opportunities as a pilot site and contribute to the reformation and construction of catastrophe insurance system.

*Translator/Dong Xin*

# Innovate a Development Pattern for Ecological Civilization to Promote Coordinated Growth of the Economy and Environment

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## ***Introduction***

The ecology and environment has now become a decisive factor for human development and national competitiveness. As the increasingly prominent environmental problem results from the economic development and globalization, the solution to the problem requires the active participation of and collaboration between countries. The green economy and ecological civilization should become a global consensus and practice standard. In the case of China, as its economy enters a transitioning period, the "Five in one" overall layout was put forward for the first time in the 18th CPC National Congress, in which ecological civilization was integrated into the national strategy for the building of socialism with Chinese characteristics. In the Third Plenary Session of the 18th CPC National Congress, it was further proposed to "build a beautiful China, deepen the reform of ecological civilization system and speed up the establishment of a ecological civilization system". It also aims to "promote the new modernization pattern with the harmony between human and nature." These strategies have highlighted the resolution of China to achieve a coordinated development of the environment and the economy.

In fact, the idea of ecological civilization can be traced back to ancient China when the philosopher Lao-tze said "Man models himself after Earth, Earth after Heaven, Heaven after the Tao, and the Tao after nature". This idea has been passed down for the 5,000 years of Chinese civilization. However, the Great Leap Forward in 20th century and the industrialization in the 21st century as well as some other activities have seriously polluted and damaged the environment, resulting in the low quality accompanying the high yield of China's economy. At present, China and elsewhere in Asia are faced with three major ecological risks. The first is the regional ecological security issue represented by climate change, economic turmoils and social conflict. The second is the regional ecological service issue featuring resource depletion, environmental pollution and ecological threats. And the last is the regional health issue of the population, which results from the increasingly exacerbating environmental disease, the reduced adaptability and the over-crowding of the population. Therefore, the ecological civilization is back on the agenda

and in a highlighted position. It can be seen that the ecological civilization is both an inevitable historical development of human civilization and a requirement of the circumstances for the sustainable development of Asia.

*An interpretation of the connotation*

The ecological civilization features sustainable development and highlights knowledge economy and eco-technology. The key is to integrate the spirit of ecology deep and fully into the human construction of a economic, political, cultural, and social environment. It is an attempt to accomplish the new layout of “Five in one”, featuring the coordinated growth between man and nature. Ecological civilization is to remold the linear thinking pattern of the industrial civilization in an ecological sense. It is to integrate the economic, political, cultural and social development in the large ecological framework, which is characterized by the unity between man and nature. It is also to implant the ecological law of autogenous, competitive, symbiotic, and recycling development as well as the ecological spirit of braving, adapting, feedback and integration into the new type industrialization, regional urbanization, informationalization of society and the agricultural modernization. It is an effort to promote efficient and recycling production, happy and low-carbon life, as well as green, harmonious and sustainable development.

*Analysis of the status quo*

The present China, under the triple pressure of the economy, population, and the environment, still faces many challenges on the road to ecological civilization,.

**The industrial development model featuring high growth, high investment, high energy consumption, and severe pollution as well as the energy consumption structure consisting mainly of coal have not changed.**

It is shown by the depletion of fossil fuels and the continued aggravating of environmental pollution that such an extensive economic growth model is unsustainable, so the transition to a low carbon economy is a must. In recent decades, however, this change is not easy, because China's rapid economic growth is largely dependent on high energy consumption and serious pollution. In 2010, China has surpassed the US to become the world's largest energy consumer, while its GDP is second to the US. Although its energy consumption intensity and carbon emission intensity are decreasing year by year, but compared with other countries, the absolute amount is still too large. For example, in 2011, China's energy intensity is three times of the United States, five times of Japan. This suggests that China has a long way to go in energy conservation and



economic transformation.

**The environment management system featuring direct control and executive order have major defects as they constrain the guiding of ecological civilization.**

The current environmental management system highlights government administrative intervention and controlling. It has pay too much attention on regulation, charging, and punishment, but too less on encouragement, prevention and incentive. The lack of market force and benefit mechanisms directly lead to failed orders and prohibitions. The one-sided emission standards and environmental management have ignored the differences in technology and pollution control cost among different enterprises, reducing the effectiveness and feasibility of environment management policy. Low amount of fees and fines means that when companies pay the sewage charges, they buy the legitimate right to emission. This does not effectively regulate the polluting industries, as it has, if any, encouraged the damaging of the environment. In addition, the "end control" eco-code increases the cost of environmental law enforcement and environmental governance. Therefore, the traditional executive-decree-led environmental policy proves to be economically inefficient, because it takes no consideration of the specific circumstances of different sectors and its implementation costs very much. Even worse, it is also inefficient for the environment, because there is no deeper motives to set a emission reduction standard for companies.

**The local government behavior is distorted by the official promotion system based on the GDP competition since the reform and opening up**

The GDP-driven evaluation system is only concerned with the growth size of the economy without the quality of growth, energy efficiency and environmental pollution, which have posing a serious threat to public health and life. Currently, the utilitarian production all over the country has resulted in waters pollution, desertification and greenhouse gas emissions as well as other ecological issues. The most typical among them is the smog. These deformed local policies not only distort the production pattern, but also hinders the fostering of a ecological concept, low-carbon consumption, and eco-friendly lifestyle among the public, thus not conducive to the ecological culture.

**Policy Recommendations**

In promoting ecological civilization, a wide range of innovation must be made in the ideas, systems, and methodologies in order constantly improve the ecological environment governance system and enhance

the ecology governance ability. In particular, the system is the key to promote the ecological civilization is the key. This article recommends the following aspects for the innovation of ecological civilization,

**Accelerate the economic transformation and promote the industrial restructuring and upgrading**

The economic transformation depends on the upgrading of the economic structure. Researches indicate that China's future structural reforms can be carried out from the following aspects.

First, the heavy industry must be reformed. We should eliminate excessive production capacity and control the production of energy and emissions-intensive products, including steel, rubber and other metal products. Efforts must also be made to develop energy-saving technologies. Strict emission standards should be implemented to speed up the elimination of backward production capacity and to push the key industries to upgrade their industrial technologies. Secondly, the structure of energy consumption should be adjusted gradually. The energy structure may not changed overnight, due to the distribution of natural resources, but in the long term, we must gradually transition from coal-dominated energy structure to one with greater proportion of clean and renewable energies, such as clean coal, nuclear energy, water energy, wind and solar energies, etc. Thirdly, the heavy and light industries should be balanced. Industrialization should be transformed from heavy industrialization into deep processing technology promoting. It is a reflection of the shifting of the labor-intensive industries to capital and technology-intensive one. So we must boost light industry and high-tech industries, such as telecommunications equipment, computers and other equipment manufacturing. This is an effort to embark on the new road to industrialization featuring high productivity, high labor force absorption, low capital requirements, and low energy consumption and emission. Finally, according to the "hump-shaped" pattern of industrialization, we must develop the tertiary industry, especially the high-yield tertiary industry, in order to optimize the economic structure. Different regions should take appropriate structural adjustment policies and develop based on the comparative advantages in order to avoid duplication. We should also focus on fostering strategic emerging industries, including new energy, energy saving, environmental protection, recycling economy, energy services, etc.

**Introduction the market mechanism to promote the appropriate allocation of resources and the transition to low carbon**

It has been proved that the power of government alone can not meet

the demands of environmental protection and governance, as it cannot solve the fundamental problem of environmental pollution. We must introduce the market forces and combine the market mechanism with the government intervention. In this way, the economic incentives and punishments can be carried out at the same time for the economic participators to protect the environment.

Specifically, firstly, we must advance the commercialization of energy prices. The long-term distortion of resource price system has led to the over dependency of China's economic growth on energy consumption. Therefore, we must accelerate the reform of the energy product prices, so that the energy factor will play a decisive role in the allocation of resources. An appropriate increase in energy prices will reduce energy demand and promote the energy and emission-intensive companies to develop energy-saving and emission-reduction technologies. Secondly, we must accelerate the environmental tax reform. This tax is a symbol of the market-oriented environmental policies, and it an important tool today for the environmental protection in many countries. The environmental taxes levied in the advanced nations include energy tax, carbon tax, sulfur tax, sewage tax, solid waste and noise tax, etc. These taxes have been vital for the sustainable development and serves as an important reference for China's environmental tax reform. This reform in China should start from collecting the carbon tax as soon as possible. And then by continuously adjusting the tax rates and the distortions, the tax system can be changed from being suboptimal to optimal. Finally, we must boost the carbon emissions trading market. Compared with the carbon tax, the carbon emissions trading, though with higher implementation cost and an emission reduction cost that is hard to measure, has a comparative advantage in terms of the effective results reuctions and operating cost. So in the long term, it is suggested that the carbon tax will gradually transition to the carbon trading, which will further help to lower emissions reduction costs and to digging into the potentials.

### **Apply a "Green GDP" evaluation system to guide the behavior of local governments**

According to the modern growth theory, only the technological advances and the corresponding increase in total factor productivity can show the direction of sustainable development. Therefore, the growth quality effect, as reflected by the total factor productivity, should be used to evaluate the transformation of the economic development mode. Researches show that the Direction Distance Function (DDF) and other measurement methods can be used to estimate the contribution of TFP to economic growth. So it can serve as a suitable alternative evaluation index. The new evaluation

index has vividly reflected the relationship between the economic growth and its quality. It is conducive to guide the local governments to coordinate the economy and environment, thus promoting the ecological civilization.

In addition, compared with the short evaluation cycle of the performance of local government officials, the ecological and environmental protection assessment period is relatively long. Therefore, we must explore an ecological civilization tracking appraisal system, so that the ecological duties of an office can still be traced back even when the officials have already been transferred .

**Actively advocate the ecological civilization behaviors and cultivate a green lifestyle**

The ecological civilization is not only about the transformation of production methods, but also about lifestyle changes. Firstly, we must carry out in-depth ecological civilization education in the whole society, popularize and promote the concept of ecological civilization, and lay a solid foundation for this civilization. Only when the concept of ecological civilization is deeply planted into the hearts of all members of society and became the guidelines of their actions can it play a leading role in the process. Secondly, through a variety of publicity and promotional activities, we can build a strong atmosphere of ecological civilization, carry out extensive ecological welfare activities, and make it a good will of the whole society. Finally, we must upgrade the consumption ideas and optimize the consumption structure. We should lead the rational consumption, encourage the consumption of ecological and green products, and gradually form a healthy and civilized, energy-and resource-conserving lifestyle.

Comment: This report explains the connotation of ecological civilization from a fresh perspective. Its highlights are prominent and the expressions can be further enriched. It has analyzed China's industrial development model, energy consumption structure, environmental governance systems and the restraints of the existing economic growth evaluation system on ecological civilization. Based on the analysis, this report has further recommended on the industries, tertiary industry, energy structure, energy price, environmental taxation, carbon emissions trading, the establishment of a green GDP evaluation system, and the lifestyle change of the people. This report is organized in a clear logic and has proposed reasonable policies on ecological civilization at the national level. However, it involves a wide scope and is in need of in-depth content. Meanwhile, policy recommendations for Shanghai should be added where it is appropriate.

*Translator/Wang Youping*

# Coordinated Development between Industry Upgrade and Environmental Governance under the Perspective of Global Value Chain

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Since the global financial crisis erupted in 2008, an obvious trend of reconstruction of the global economy has appeared along with its slow recovery. Whether the growth of economy or the center of consumption expansion, both of them are gradually transferring from developed countries to emerging economies. And as the further increase of economic aggregate and income level of emerging economies, this trend will definitely be accelerated. This trend does not only mean the improvement of overall economic strength of emerging economies, but also provide a historic opportunity for emerging economies to promote its position on global value chain and to change its way of participation in global governance, which is even more important. This historic opportunity is of unusual meaning for China, considering China is actively expanding its domestic demand and looking for a way to change its economic growth pattern.

The export-orientation strategy has brought about worldwide remarkable economic growth for China in the past 30 years. However, this strategy also results in the fact that Chinese industry has been locked on the lower end of global value chain for a long time, which leads to the difficulty of industry upgrading and serious resource and environmental problems. With the gradual disappearance of China's low-cost advantage, combined with constant strengthening of resource and environment constraints, the sustainability of China's original development pattern is under serious threat.

Under the perspective of global value chain, there is a close connection between environmental governance and industry upgrade. Higher value-added link on industry chain corresponds to lower environmental pollution, while the improvement of environmental governance capability and the upgrade of environmental standards can also help domestic industries to enhance competitiveness in the global market. Therefore, at the same time of industry upgrade, it is of great benefit for the promotion of the position of companies and industry on the value chain, the improvement of the trade environment, and the sustainability of economic growth to improve the occasion by adding new environmental standards and take an active role in global environmental governance.

Nowadays, environmental issues are gradually receiving attention from

the whole society, and environmental upgrade of emerging economies is becoming the hot field of the study of global value chain. As the biggest developing economy, China should pay even more attention on how to participate in global environmental governance along the global value chain. For this purpose, guided by the new concept of development constructed under the perspective of global value chain, we need to analyze the relation between industry upgrade and environmental governance, evaluate the current situation and development opportunity, and finally propose a reasonable path for coordinated development between industry upgrade and environmental governance on that basis.

### ***1. New Concept of Development under the Perspective of Global Value Chain***

“Global Value Chain” (GVC) has always been an important method to analyze issues such as global industry, trade and income distribution, etc. Since the 2008 global financial crisis, significant changes have happened in global economy during its recovering process. The GVC framework provides a new perspective for us to better understand the structure of global economy and its change more clearly and accurately, which also leads to more extensive attention of GVC: WTO published new trade statistics based on added value, which revealed new changes of trade pattern in East Asia; While the World Bank required transnational enterprises which hold a dominant position on global value chain to play a greater role to enhance the trade capacity of developing countries. Other major international organizations such as UNCTAD, OECD and ILO have also adopted the GVC framework to analyze trade and development issues.

#### **1.1 The Meaning of Global Value Chain for Global Economy Structure**

The analytical framework of global value chain can be traced back to the concept of “Value Chain” and “Value System” proposed by Michael Porter in *Competitive Advantage* in 1985. After the development phases of “Global Commodity Chain” and “Global Production Network”, the concept of “Global Value Chain” was finally formed in 1990s, and has become a popular analytical framework to analyze issues in international supply chain and industry pattern since then. In *Industrial Development Report 2002/2003: Competing through Innovation and Learning* published by UNIDO, GVC is defined as “Global trans-enterprise network organization which connect processes such as production, sales and recycling, for the purpose of realizing the value of goods or services, involving collection and transportation of raw materials, production and sales of semi-finished and finished products, and final consumption and recycling and disposal. It includes the organization of all participants,

all production and sales activities and its revenue distribution, as well as the capacity and efficiency of institution support by automatic operating process and the links among suppliers, partners and clients.” This definition exceeds the limits of enterprises or national borders, and it emphasizes that GVC is the organizational-connection pattern of enterprise networks connected by different economic activities.

GVC connects together enterprises, organizations and consumers all around the world to form an ordered value chain. The impetus behind GVC is the economic rents formed in different links, which means the sustainable income produced by different scarce resources, whether they are tangible or intangible, such as production factors, technology, management, etc. In a sense, the key to understand the value emergence, revenue distribution, governance system and dynamic evolution of industry chain under the perspective of global value chain, is to understand the emergence and change of economic rents of different links on global value chain. Kaplinsky and Morris divided economic rents into two categories, which are endogenous economic rent and exogenous economic rent. Endogenous economic rent includes “technology economic rent”, “human resource economic rent”, “organization-institution economic rent” (economic rent brought by management technology), “marketing-branding economic rent”, “relation economic rent” and entry barriers in forms of business secret or intellectual property, etc. While exogenous economic rent includes “natural resource economic rent”, “policy economic rent” (economic rent brought by policy-based monopoly), “infrastructure economic rent” and “financial economic rent” (financing convenience), etc.

The scarcity of factors used in different links on value chain is different, so the economic rent is also different. Using the “Smiling Curve” of value added on value chain as a reference: factors used in links of low added value near the middle such as processing and assembling are less scarce, so the economic rents are also lower; while the links near both ends, such as R&D, design, branding and marketing, are on the opposite. The distribution of economic rents determines the revenue distribution in different regions, on different links for different subjects, and it also determines the structure of global economy to a large extent. It is worth noting that the scarcity of resources is not fixed: with the development of technology, the entry barrier of production process will be decreased constantly, and more and more countries will have the capacity to join the lower production link on global value chain, which may lead to the dissipation of the “rent” of this link and the continuous reduction of added value; on the contrary, fields which can produce higher “rent”, such as R&D and marketing, will be increasingly independent from production

process, and transfer towards intangible process. The characteristics of technology or knowledge intensity lead to higher entry barrier of these links and become the major source of revenue on value chain.

Thus, one can see that the distribution of economic rent is always changing: the received economic rent will be lost due to the breakthrough of entry barriers, and new economic rents will keep emerging. The relative scarcity of factors and the change of economic distribution pattern brought by that are exactly the impetus which will determine the economic structure and global industry evolution.

### 1.2 The Driving Force of Global Value Chain and its Governance Model

The governance model of global value chain can be divided into “producer-driven model” and “buyer-driven model”. The former refers to the value chain where the producers promote the market demand through investment and form the vertical division of labor system of global manufacturing and supply chain. In this kind of GVC, transnational companies with advantages in technology or scale economy are the investors, which organize forward and backward linkage of different production links through global market network, and eventually form a global manufacturing network system dominated by producers. Commonly, most capital or technology intensive industries such as computers, semiconductor and equipment manufacturing belong to this category, and large transnational manufacturing enterprises are the dominant power in this kind of value chain. The “buyer-driven model” refers to the value chain where enterprises with strong brand advantage and domestic distribution channel can organize the transnational commodity circulation network through production modes such as global procurement and OEM, which will create strong market demand and promote the economic production of export-oriented developing countries. Most traditional labor intensive industries such as commodity production belong to this category.

No matter in “producer-driven” or “buyer-driven” model of value chain, “standard” is always an important tool for value chain governance. The manufacturers use “standard” to transfer information on production process and quality to customers, while the buyers use “standard” to control the production process of suppliers. “Standard” realizes the symbolization of different complex information, which can reduce transaction cost and enable dominant enterprises to easily coordinate the operation of the whole value chain. The setting of standards profoundly reflects the distribution of power on global value chain: In the forming process of the global value chain, dominant enterprises outsource the standardized production process to companies in developing countries



with lower labor cost. Meanwhile, they control the value chain and hold the link with most added value in their hands by setting standards and entry barriers. For suppliers from developing countries, they have to meet the standards to enter the global value chain. And even if they could enter the value chain, they would be locked in the lower end. Due to the lack of standard setting power, emerging economies cannot bring their domestic market into full play and realize economic upgrade, and it is also adverse to global sustainable development, while the developed countries can still gain economic rents through standards. Now, in standard setting and managing subjects represented by ISO, OECD members are still the dominators, which reflects the dominant position of developed economies in existing global value chain governance.

## ***2.The Relations between International Trade and Environment under the Perspective of Global Value Chain***

With the economic globalization and specialization of international division of labor, China has gradually inserted in the production network of global value chain. However, Chinese export structure features low value-added and low-tech industrial products, mainly concentrating on high energy-extensive consumption industry like textile, chemical engineering, manufacture, etc. China has long taken the one-sided approach to development, which only seeks the growth of quantity. The extensive economy growth mode driven by resources and labor force has made Chinese cyclic utilization rate lower than that of developed countries, and moreover, China's resources and environment constraints are increasingly obvious. Considering environmental externalities, the added value of Chinese products is relatively lower than that of developed countries. Greatly restrained by resource scarcity and environment capacity, the sustained development of Chinese foreign trade is facing huge obstacles.

Improving the sustained development of Chinese foreign trade is an urgent issue, and the effective way to change this situation is to upgrade itself towards the higher end on global value chain. There are certain differences between the upgrading modes of GVC under mechanisms driven by different forces. Therefore, it is vital to comprehensively analyze the role of environmental factors in different GVCs, and its interaction with industry upgrading, which has great significance in effectively promoting the transformation and upgrading of different industries as well as improving sustainability.

### **2.1The Effect of Environmental Factors on GVC**

The environmental factor is one of the most decisive factors in GVC,

which has significant influence on global industrial layout, income distribution and international trade. Developed countries depend on their preponderance of capital, technology and controlling over the world's end market, to continuously develop and design new products, while transferring standardized production process to developing countries by FDI or OEM. In this process, abundant factors in developing countries, such as labor force or natural resources, have become the determinant of production transfer. With the growing environmental awareness and increasingly stricter environmental regulations in developed countries, the relatively loose environmental regulations in developing countries leads to the transfer of resource-intensive and pollution-intensive link with low added-value to developing countries, and developed countries can seek lower environmental governance cost in this way. Impelled by the demand for earning foreign exchange through export, developing countries have to positively or negatively ease resource and environmental regulations as well as take over related industrial transfer. Since the high-end link such as R&D, design and marketing requires more technology and highly skilled labor force, it has low pollution to the environment; since the processing and assembling of products consume plenty of resources and human resources, it releases more wastes. Therefore, considering environmental cost, the gap between the added value of the low-end link and the high-end link on GVC will become larger. As a result, developed countries import high-energy consumption and high-pollution products without paying for environmental protection. Meanwhile, export countries who gain low values added face resource depletion and the worsening of pollution – the value added from the environmental factor have transferred indirectly from developing countries to developed countries.

As an important factor in economic production, the overall quality of environment depends on natural conditions, environmental awareness and preference as well as environmental regulations in certain areas. When the environmental awareness of citizens is strong, or environmental regulations are relatively strict, available environmental resources are relatively fewer while there are relatively more environmental added value preserved by local people, and vice versa. At the early stage of economic development, emerging economies usually have abundant low-quality labor force and relatively low environmental awareness and environmental standard, which leads to relatively abundant environmental carrying capacity; material, human resources and technology factors are relatively scarce. This determines that emerging economies usually occupy the labor-intensive low-end processing manufacturing industry and “environmental-intensive” high-pollution and high-energy consumption industry, such as excavation, papermaking, nonmetallic

minerals, petroleum processing and coking, chemical industry, metal smelting, etc. Due to the restriction of international distribution of labor and fierce competition in the world market, many low-income countries cannot upgrade their environmental and social standard. Even under fierce market competition, “Race to the Bottom” or “eco-dumping” phenomenon may appear when developing countries compete to decrease social standards on environment and labor to attract investment. Positive research conducted by Lueas (1992) and Birdsall & Wheeler (1992) discovered that the restrictions of environmental regulations in OECD countries have caused the increase in pollution level in developing countries, which indicates high-pollution industry has been transferred to developing countries, and their products have flowed back to developed countries. Mani & Wheeler (1998) further estimated the import/export of high-pollution industry, whose conclusion supported the “pollution haven” hypothesis.

However, the economic rent brought by environmental resources can be used up really fast: Primarily, if the use of environmental carrying capacity exceeds a certain degree, renewable resources will be transferred to non-renewable resources, whose supply will continue to decrease in the process of consumption. Moreover, with the increase in income, the environmental awareness of citizens from emerging economies will keep on improving, which will decrease the tolerance of high-pollution industry; finally, in the economic growth of emerging economies, production factors such as capital, technology and human resources can accumulate fast, while the overall supply of environmental factor only decreases but never increases, which leads to the change of factor comparative abundance. These factors all decide that new economies cannot rely on its resource and environmental “advantage” to seek low-end development path in the long term. Conversely, with their deepening involvement in GVC, the industrial structure of emerging economies will appear natural upgrading process.

## 2.2 Environmental governance based on the existing GVC system

Global environmental governance based on GVC mainly comes into effect through informal rules. That is, NGOs and leading enterprises establish related standards. NGOs stand for higher goals of developed economies in environmental and social issues, and need the market influence of multinational companies to spread their values to the world; Leading companies on GVC need to build their brand image while solidifying their leadership on the value chain through agenda-setting and governance in different links. Therefore, NGOs and MNCs have both rivalry and large room for win-win cooperation.

The highest added value on GVC are often links such as intellectual properties, branding and designs. Besides, with the improvement of consumer awareness, the focus of the market concerns is no longer only limited to product quality and price, but country of origin, safety and the environmental and social influence in the production process. With the strengthening of producing capacity in developing countries, the comparative advantages of developed countries are decreasing. As a result, the previous economic rent in developed countries will continue to disappear, and therefore, the future economic rent of MNCs will increasingly come from social standards such as environment and labor standards to protect their comparative advantages. The externalities which occur in environmental issues extensively determine that global governance can more effectively achieve higher environmental goals – which provide the opportunity for NGOs and MNCs to coordinate, so that MNCs can get legitimacy on establishing new standards and creating new economic rents. Promoting global environmental governance through trade policy has been the apparent trend in developed countries. In May 2007, the U.S. Congress and the White House established a new trade policy to regulate that future FTAs signed between the U.S. and other countries must put labor rights and environmental protection in core position. This political guide, which is based on the consensus of both parties, will have a significant influence on future U.S. foreign trade policy. In the negotiation of TPP, environment and labor issues have already become the focus of negotiations, and this has also become the important measures of developed countries to restrain developing countries in the high end on the supply chain. Vandenberg, a U.S. scholar, pointed out that since America and Europe account for 41% in Chinese export market, they can utilize their favorable position on the supply chain to promote Chinese producers to reduce emissions.

It is a pity that the goal of developed countries to bring about environmental standards is often not to promote cleaner production or transfer environmentally-friendly technologies to developing countries, but to set more barriers in international trade and to worsen trade conditions of developing countries. Some scholars have pointed out that environmental standards set by developed countries will cause developing countries to partially lose the discourse power in establishing global environmental cooperation regulations. Early in 1995, Commission on Global Governance said: “Those who are against ‘environment dumping’ in developing economies often care about protecting the supply which they do not have competitive power, even more than their concerns about human dignity and earth safety.” This is very noteworthy to emerging economies.

### ***3. The Current Conditions and Prospects of Chinese Industry on GVC***

In the past 30 years, China's rapid economic growth benefits from its active engagement in the distribution of labor on GVC. At the early stage of China's economic reform, labor force cost advantage, capital advantage, ready-made technologies (developed countries export mature technologies), ready-made market (the market starts from scarcity), exchange rate advantage (the devaluation of RMB promoted the formation of Chinese export-oriented strategy) and trade policy advantage (utilizing WTO rules to promote the rapid growth of Chinese export trade) have collectively made China the "World Factory" and achieved the miracle of economic growth. Now China is already the second largest commodity trade country and the second largest country in foreign capital inflows, and China holds significant influence on global investment trade – deep engagement in GVC has improved China's overall economic power.

However, at this point, the determinants in supporting China's rapid economic growth in the past 30 years have changed gradually: Firstly, the factor cost has risen. On one hand, labor cost is rising; on the other hand, the environmental cost is rising, and international climate negotiations and the global low-carbon transformation make previous high-pollution and high-emission industries hard to exist. Secondly, the technology source has reached the bottleneck. The technology required by Chinese industry upgrading is no longer the mature or even out-of-date technologies from developed countries, but cutting-edge and core technology, which developed countries are unwilling to transfer. Thirdly, the market has changed. Global industry has appeared two-way flow that low-end industries transfer to lower-end developing countries, while high-end industries transfer back to developed countries in the U.S. and Europe. Fourthly, the conditions of exchange rate have greatly changed. With the growing pressures from the international society on the appreciation of RMB, China can no longer stimulate export by depreciation. Fifthly, international trade rules are changing. The U.S. is reshaping the global trade map, trying to propose new international trade policy other than the Doha Round. The U.S. has proposed TPP and TTIP on the regional level, while on the multinational level, it has proposed TISA, covering 21 developed countries and almost 70% service trade in the world. Through these three agreements, WTO rules will become a mere scrap of paper, which will decrease the advantage of "made in China" under the old rules.

In these circumstances, the shift of global market to emerging economies and the increasingly mature domestic industrial structure as well as producing technologies, have offered us an opportunity to upgrade, or even compete for the discourse power in GVC.

### 3.1 The Obstacles Caused by Chinese Engagement in GVC

Economic globalization is a two-edged sword, which helps the economic take-off in developing countries and in some way solidifies the polarization of global economy at the same time. Since developed countries have absolute advantages in technology and capital, they usually control the links of design, R&D or marketing, and transfer their low-end producing link outwards through FDI or OEM. They rely on cheap production factors in developing countries to reduce their producing cost so that they can gain super profit in the end market. However, from the perspective of developing countries, due to their limited capacity as well as the blockade of GVC, they can only rely on their low-cost advantage to negatively get involved in GVC, such as processing trade, to gain very small added value, which also leads to serious resource, environmental and social problems.

Restrained by the position in the global distribution of labor, the fate of Chinese manufacturing industry has been largely controlled by GVC-leading companies. This largely dampens Chinese initiatives of independent development and causes deep problems in the macro economy:

- **Inhibit the development of R&D, manufacturing and sales system for equipment manufacturing industry:** Since China's economic reform, one of the important features of emerging manufacturing industry in coastal areas is that machines, devices and some key intermediate products are imported from developed countries to produce and process end products. This export-oriented development mode not only relies on big orders in the market of end consumer goods, but also key technologies, devices and parts from developed countries. Therefore, the heavy equipment industry which served domestic needs now loses its market base to survive.

- **Imbalance allocation of solidified industry space:** In GVC controlled by leading companies from developed companies, domestic producing process not only lack initiatives and controllability, but also the malleability of domestic development. Therefore, the growth in the east can only have the "siphonic effect" on raw materials, labor force and capitals in central and western regions. Meanwhile, the negative low-end orientation in the east also curbs the development of labor-intensive industries in central and western regions, which has big "crowding-out effect". Such industrial development path severely solidifies the gap between economic growth in the east, central and west of China, and also causes great obstacles to our future development of multi-level modern industrial system.

●Strengthens the imbalanced supply and demand of factors: To promote China's industrial optimization upgrading, China has devoted itself to cultivating high-quality talents, independent innovative ability and cumulating high-tech productivity. However, the current low-end distribution of labor GVC system has caused the large demand for domestic low-quality labor force and traditional industrial productivity. Meanwhile, the high-end links on GVC which require knowledge, technology and human resources are firmly controlled by developed countries, which leads to many restrictions in Chinese advanced factors, featuring large unemployment of university graduates but labor shortage and brain drain crisis, the increase in high-tech R&D investment but limited room for market practical application and revenues, as well as excess capacity in high-tech industries, etc.

●Restrain the formation of modern industrial system. The main content of modern industrial system is: promoting the integration of informatization and industrialization, the matching between service industry and manufacturing industry, promoting high and new industry to make new breakthroughs on key technologies, heavy chemical industry to make new breakthroughs on scale, traditional industry to make new breakthroughs on branding, and service industry to make new breakthroughs on production service, and eventually establishing the new structure of the coordinated development, which is pioneered by high and new industry, advanced manufacture and modern service industry as the main body and is based on modern agriculture. However, in the existing GVC, whether producer service industry or hi-tech manufacturing industry, even the brand building of traditional industry, are all at high end on the industrial chain, which are firmly controlled by MNCs from developed countries, which disables China to form its independent brand values and leading companies. The lack of high-end links in the multilevel modern industrial system causes the central and western regions to be inhibited by the eastern areas in the low-end of GVC. Neither the east can achieve industrial upgrading, nor can the central and the west swallow the industrial transfer.

### 3.2 The Coordination between China's Trade Development and Environmental Governance

Since China's rapid growth in foreign trade in 1990s, there is a large amount of literature on the influence of international trade on domestic environment. Zhang Lianzhong (2003) built the general equilibrium model to analyze the effect of trade liberalization on domestic environmental pollution. The result indicated that the scale effect will worsen Chinese pollution level, organization effect and technological

effect will decrease Chinese pollution level, and the net effect of trade liberalization will benefit Chinese environmental protection. Shen Lisheng (2008) used the input-output model to positively analyze the effect of foreign trade on Chinese carbon dioxide emissions. The result indicated that, since export pollution emission intensity is lower than import pollution intensity, so foreign trade benefits Chinese pollution reduction. However, analysis from the perspective of GVC on Chinese engagement in GVC and its influence on environment is very limited. Xu (2000) adopted SUR to estimate the sectional share equation system deducted from ideal GDP function. The analysis result indicated that the environmental factor is not the determinant even to environment-sensitive industries, and there does not exist “eco-dumping”. Dean (2004) analyzed data of nearly 3,000 joint venture projects in China from 1993 to 1996, and discovered that FDI data supported the “pollution haven hypothesis”, that is, low environmental standard is one influential factor that FDI flows into China. Zhang Shaohua and Chen Langnan (2009) established a set of global economic index and analyzed panel data of 33 industries in China from 1997 to 2005. The result indicated that economic globalization will reduce the pollution level in China. Yu Chunyan and Han Xiaodan (2010) introduced ecological factor into GVC profit distribution mechanism, built an evaluation system of Chinese foreign trade subsystem and ecological subsystem development, and estimated quantitatively the coordination between foreign trade and ecosystem in different industries driven by different value chain categories.

According to the definition, the higher the trade benefits in a certain industry, the lower the environmental cost, the larger the profits in low-end links, and the more coordinated between international trade and ecosystem in this industry; conversely, if the profits of low-end links are negative, then this indicates that environmental cost is higher than trade benefits, and the development level of international trade is thus higher than that of ecosystem. According to the result of positive analysis on the coordination between foreign trade and ecosystem in 19 industries in 8 years, the result indicated that with the increase of labor force and accumulation of capitals, export on ecology-intensive products will decrease; the export on capital-intensive and labor-intensive products will increase, which enables the industry overall development index of capital-intensive, technology-intensive and labor-intensive industries to increase, while that of ecology-intensive industries to decrease. In terms of coordination data, the coordination degree of high-pollution industries, such as non-metal mineral products, paper making, excavation, and petroleum processing and coking, is relatively low, while that of low-pollution industries, such as telecommunication, textile, food processing



and pharmaceutical manufacturing, is relatively high.

The coordination of industries driven by different value chain categories is different, too; in producer-driven model of GVC, the difference between different industries are quite large, and China is in the low end of GVC with low profits and no increase in added value at the expansion of export scale. Voluntary increase in domestic environmental cost has gradually worsened the trade conditions. In buyer-driven model of GVC, Chinese foreign trade and ecosystem are at the early and intermediate stage with a steady development, and the development level of ecosystem and that of foreign trade is higher. Generally, the coordination of GVC driven by consumers is higher than that of GVC driven by suppliers.

Conclusions above have provided theoretical proof to improve the coordination between Chinese foreign trade and ecosystem. All industries should upgrade themselves to different directions according to their industry features and their different positions on GVC, and take measures to improve the ecosystem.

### 3.3 Development Opportunities Faced by China's Industrial Upgrade

Fortunately, the reconstruction of global economy after the financial crisis has provided China important opportunities and necessary conditions to upgrade its industry:

- Improvement of market width and depth brought by market turn

Kaplinsky (2010) held that, due to the rapid enhancement of production capacity of big emerging economies like China and India, especially since the shock of 2008 global financial crisis, the end demand of final goods and intermediate goods has been transferred from north to south, which may suggest another important transformation of GVC. Gereffi (2014) also held that, the financial crisis has sped up many transformations of GVC end markets, leading to the regional reconfiguration of investment and trade; the geographic merge of global supply bases and the aggregation trend of GVC have strengthened, and the bargaining power is transferring from leading companies to large suppliers from emerging economies.

In April, 2014, Regional Outlook on Economy: Asia and Pacific published by IMF adopted the added value trade database of OECD and WTO, and compared the change of trade position of China and Japan in Asia. The result indicated that the dependence of most Asian economies on China has exceeded that on Japan; the end market demand has apparently transferred from Japan to China. The report explicitly pointed out, "Although the U.S. and the EU remain the two biggest end markets, the end demand from China has grown rapidly in the past 20 years."

The transformation of end market might be a long-term steady trend. Due to the relatively big economic growth rate and large populations, emerging economies are rapidly forming large scales of middle class. According to OECD standard, USD \$10 to USD \$100 per day per capita as the dividing standard in 2009, then the amount of middle class in Europe and the U.S. would decrease from 64% in 2009 to 30% in 2030; the proportion of middle class in Asia was only 23% in 2009, but then reached 59% in 2030. Some studies held that Chinese middle-class consumption would exceed the U.S. in ten years. Chinese middle class, as a new consumer group which will grow exponentially in the next few decades, are expected to become a new long-term source of global demand.

The turn of market has not only improved the market width (that is, the growth of number), but more importantly the improvement of market depth, featuring the growing consumer demand for commodity diversification and the growing individual demand, such as quality, function, brand, etc. This provides the necessary conditions for the three-dimensional and multilevel brand building of domestic companies, and this is the necessary condition to build the high-end link of value chains.

- The maturity and improvement of technological, industrial and organizational structure brought by industrial accumulation

Many enterprises in Chinese industrial cluster have experience of simultaneous operation on different value chains. In the contemporary Chinese industrial cluster configuration, companies in special industrial clusters may face fierce competition. Due to such competition within a cluster or between clusters, and out of the need to avoid risks and to carry out the strategy of diversifying markets, companies often have to reside in different categories and types of value chains. For example, many companies in Jiangsu and Zhejiang both enter the U.S.-led GVC and the loose European-led value chains. Some even voluntarily export independent brands to other less developed areas, and they also have plenty of direct sales experience in the domestic market. On different value chains, companies can apply what they learn from a certain value chain to the upgrading activities in another value chain, so as to achieve the industry upgrading with low cost.

#### ***4. Coordinated Development between Industry Upgrading and Environmental Governance***

The expanding domestic market of China is becoming the new power to promote regional transition under the current economic globalization process. Domestic MNCs (especially in Eastern China) are dominating the rebalance of the interaction between global and domestic market in

the post-crisis era. During this process, the domestic-market-oriented production network is on the rise, while the economic upgrade brought by that will hopefully promote the process of environmental upgrade.

“Environmental upgrade” refers to the process where different economic actors turn together to the production system in which they can avoid or reduce the environmental damage caused by products, production process or management system. Only led by producer or buyer with important position in the value chain governance, this process can eventually promote the behavioral change of all enterprises in the whole supply chain. Under the condition that Chinese industries have long been posited in the lower end of GVC, it is difficult to promote the environmental upgrade process. Therefore, under the circumstance where it is possible to realize market turn and get rid of the lower end of the value chain, China should seize the opportunity to establish the National Value Chain (NVC) depending on the deepening of domestic market, and promote economic and environmental upgrade simultaneously.

#### 4.1 Promoting Industry Upgrade and Environmental Governance on the Global Value Chain

In producer-driven model of global value chain, core enterprises which have controlled the R&D part will transfer the production process which may cause serious environmental pollution to developing countries with resource advantages. After the environment-consuming production process, these enterprises import the goods back to their own countries. As a result, countries on the lower end of the value chain have to participate in fierce competition with high cost and can only gain meager production and processing revenue. However, the economic development of these countries is unsustainable due to their serious-polluted environment. As a result, in producer-driven model of value chain, if the foreign trade and ecological environment of one industry are coordinated with each other, then this industry is low-pollution industry and holds an important position in the export of one country. If the country is located in the lower end of the value chain, then it should upgrade toward the R&D part. If the foreign trade and ecological environment are not coordinated, then it indicates that there is a big gap between the development of foreign trade and ecological environment of that industry. If the development of foreign trade is faster than the ecological environment, then measures should be taken to improve the environment; if the development of ecological environment is faster than foreign trade, then that industry should be upgraded toward the R&D part.

In buyer-driven model of global value chain, the revenue of lower end is mainly decided by four factors in the higher end, which are

the procurement volume, established procurement price, number of companies engaged in the lower end and environmental cost. Without regard to environmental cost, the revenue of lower end is restricted by backward marketing and service part, which means the larger the total revenue at higher end, the larger the revenue at lower end. In the market equilibrium, if the market demand for certain products, market price and total revenue at higher end remain unchanged, the revenue of companies at lower end will decrease with the intensifying competition. In order to gain high monopoly profit, in an imperfect competition market, large buyers will use monopoly low price to transfer the revenue of lower end companies. When considering the environmental cost, the cost of companies at lower end will rise. However, the procurement price is decided by large buyers, the procurement volume depends on the market demand, and the revenue of companies will decrease. In order to get larger supply volume, companies at lower end are willing to accept low price of supply condition. Environmental resources are excessively consumed, but the environmental cost cannot be covered, which result in the discordant between export and environment. As a result, in buyer-driven model of global value chain, if the foreign trade and ecological environment of one industry are coordinated, but the country is located in the lower end, then it should upgrade towards the market and service part. If foreign and ecological environment are not coordinated, then it indicates that there is a large gap between the development of foreign trade and ecologic environment of that industry. If the development of foreign trade is faster than ecological development, then measures should be taken to improve the environment. If the development of ecological environment is faster than foreign trade, then the industry should be upgraded backwards.

#### 4.2 Promoting Industry Upgrade and Environmental Governance on National Value Chain

In order to realize the strategic transformation of China from a “manufacturer of quantity” to a “manufacturer of quality”, we need to explore the way to get rid of the current position at lower division of labor on global value chain. Constructing a National Value Chain system and governance structure based on domestic market is an effective way to realize this strategy.

The national value chain is developed on the basis of domestic market demand. With the control of core links of product value chain, domestic companies can achieve high-end competitiveness on product value chain in domestic market, such as brands, distributing channels and endogenous research and development capability, then they will enter regional or global value chain of labor division system. At the present stage, the

conditions for China to establish a national value chain are ripe:

- The capacity of domestic market, especially high-end market is huge, which provide the basis of innovation capacity for China's companies and industries. No matter design, R&D, or marketing, the innovation activities involved all require large amount of sunk cost. Only when there are enough demand scale existing in the economy, the advanced factor input of companies' innovation activity can eventually turn into the revenue of innovation activity.
- The rapid-increasing market depth provides the space for value transfer and appreciation of advanced factors of industry value chain. Through the support of domestic market for innovation, NVC can develop advanced factors of domestic companies or industries endogenously, and then build multi-level and multi-dimensional competitiveness of industry chain.
- The standard system constructed closely to the domestic market will form as entry barrier for global competitors, and thus guarantee the competitive advantage of domestic companies. In addition, the patent standard system owned by domestic companies can be used as an effective tool to open the global market and bypass the barriers of market standard.

Under the framework of NVC, dominant domestic enterprises, governments at all levels and industrial organizations in China can set environmental standards based on the actual needs of China. At the same time of promoting industry upgrade, experience from industry chain governance and the economic rent brought by that can be held with China for the purpose of environmental governance. While by using the depth of domestic market, gradual industrial transfer from Eastern China to central and western regions will be achieved, then the coordinated development of regions will be realized.

It should be noted that, constructing a national value chain based on modern industrial system does not mean promoting closed economy or import substitution, but means re-integrating business network of Chinese enterprises and industrial circulation system, re-framing the governance structure of national value chain, re-adjusting industrial relation structure among regions, and it will eventually provide a solid development platform for the sustainable development of China's economy. In the context of Chinas' industrial development, bilateral trading platform carrier model (specialized market) and unilateral trading platform carrier model (leading enterprise network) are the main mechanisms and ways for China to construct national value chain and to achieve industrial function upgrade. As an important carrier and platform for the construction of

national value chain, specialized market has the advantage that it can provide possible development space of diversified market for enterprises to upgrade towards higher link on the value chain. While the construction of national value chain based on domestic market and leading enterprises within it actually requires our effort to develop and construct China's transnational enterprises.

### 4.3 The Leading Role of Shanghai in Industry Upgrade and Environmental Governance

With advantages in geography and location, capital, and labor force, the Eastern Coastal Area of China has deeply engaged in global value chain, achieving economic take-off and becoming the leader of China's economic development in the past 30 years. Especially for Shanghai, not only the economic aggregate, but also the per capital income of Shanghai are both the highest in China. With the continuous upgrade of economy and income, the environmental awareness and environmental standards in Shanghai are also continuously rising. Driven by these factors, Shanghai has gradually achieved the transformation towards postindustrial development stage, and the industrial structure is becoming more service-oriented, light and high-end. From the viewpoint of factor endowment, Shanghai has the richest physical and human capital, as well as technology and knowledge factor, and the growth of these factors are still on the rise. From the viewpoint of the market, as the first area opening to the world in China, the advanced, open and rational consumption idea have brought Shanghai incomparable market depth in China (higher and diversified requirement for the function, quality, design and brand of products rather than simply large market demand). Under these conditions, depending on the advantage of advanced factors, and the opportunity of the expansion and deepening of local and domestic market, Shanghai should actively promote the development of higher links on the industry chain, thus leading the development of national value chain both in depth and breadth. It is not only the opportunity but also the responsibility of Shanghai.

Using the analytical framework of GVC, the development of NVC can also be analyzed from the perspective of different drivers. For producer-driven model of value chain, Shanghai need to rely on its abundant advantages in knowledge, human capital and physical capital, concentrating front links of the value chain, such as product design and R&D in Shanghai, achieving scope effect of technology intensive production process, and then promote the endogenous industrial development. At the same time, actively promoting the integration and docking between scientific research and R&D with the industry and

market, thus promoting university-industry-research cooperation, is an effective way to accelerate the digestion of knowledge stock and human capital factors, and to stimulate greater and more effective R&D input and technical process. For buyer-driven value chain, Shanghai need to further promote the development strategy of “headquarters economy” to cut marketing cost, remove policy barriers and encourage and support the development of local brands. Meanwhile, depending on value chain governance, Shanghai can integrate resources of the whole country and driving the development of mainland economy.

Depending on the construction of national value chain, Shanghai can not only further achieve economic transition and development, but also driving the industrial upgrade and economic development of the whole country. In this context, the requirement for resource, environment and social standards of governments at all levels, social organizations and institutions can be quickly spread to different regions in China by market dominant enterprises in the way of industry chain governance, and will unnecessarily be contained by developed countries. With the gradual development of national value chain and continuous increase of production technology and environmental standards, the overall international competitiveness of China’s industries will also be continuously enhanced.

However, it is worth noting that, the construction and deepening development of national value chain does not only require the efforts of some developed regions, but also the coordination and cooperation of all regions in China. No matter for GVC or NVC, a multi-level structure of the division of labor and a diversified subject structure is required to meet different demands of various links on the value chain. Without the cooperation of factors from the Middle Western region, the problem of the mismatch of high-end and low-end factors in Eastern China can only be solved by the siphonic effect of factors, thus further fixing the gap of economic development between the eastern and western region. Without the support of national market, no matter how much input on R&D, marketing or brands in Eastern China cannot formulate effective market incentives, and then the higher links on the value chain cannot develop and will always be under the suppression of international enterprises. Therefore, in order to achieve the strategic target of value chain transformation and upgrade, reform in the following fields should be actively promoted on national level:

- Build middle-income class in China and support domestic enterprises’ upgrade in domestic market

Depending on the culture and market of domestic middle-income class

to develop domestic global brands is the essential characteristics of global brands in their development process, especially in initial phase. At the present stage, the widening income inequality and dumbbell-shaped demand structure of China make it difficult to formulate a large demand space for brands, and it is impossible to develop leading enterprises in core links on the national value chain under such market condition. More importantly, in an open economy, limited high-end market demand of China's domestic market is facing the competition and substitution of brand products of high quality and performance from foreign or transnational companies. In such circumstances, manufacturing enterprises will lose the space to develop leading enterprises on the national value chain depending on domestic market, which will lead to the absence of internal motivation of China's manufacturing enterprises to construct a complete national value chain, and export strategy with competition on lower cost will become their optimal rational behavior.

- Make every effort to reduce institutional cost for domestic enterprises to construct NVC

Under the institutional environment where the protecting system or enforcement mechanism of intellectual property are absent in China, many peer enterprises, by imitating or copying, such as hunting for key technicians or using "reverse engineering", to compete with research firms with low or even malignant price. As a result, research firms transform to OEM to avoid price competition from peer enterprises by imitating or copying. These institutional factors have become an important factor hindering the construction of NVC by China's manufacturing firms and the transformation from GVC to NVC and their coordinated development.

- Regulate and guide competitive behavior of local governments

The existence of local protectionism directly leads to several problems including the segmentation of domestic market, increasing market integration cost and weakening effect of market expansion and deepening, and seriously hindering the development space for China's manufacturing firms to construct NVC by using domestic market space. Led by the target of attracting foreign business and investment, local governments provide "disguised" subsidies to foreign capitals, which artificially distorts the cost variance of production factors and investment proportion of enterprises. These actions largely reduce the export cost of China's manufacturing firms which doing OEM business, and stimulate their motivation to engage in GVC and certainly squeeze the space for stimulus for China's manufacturing firms to construct NVC.

*Translator/Qian Jing*



# Advices on China's Carbon Emission Trading Scheme

Li Jin, *General Manager Assistant of Shanghai Environment and Energy Exchange*

2013 has witnessed the inception of China's carbon market since it began to launch nationwide the ETS (Emission Trading Scheme) which is due to be set up in 2016-2017. And this project started from pilot places and will be rolled out nationwide.

## ***1. Status Quo of China's ETS***

### (1) The Overview of the Emission Trading Scheme

Before 2012, the Emission Trading Scheme mainly consisted of UTES, EU or New Zealand. However, a growing number of developing countries joint in, making it a 35-country and 7-city combination. The global ETS taking up roughly 15% of the GDP and 48% of the population which can be translated to mean that two persons out of every five are involved in the Emission Trading Scheme.

### (2) The Pilot Project of China

First is the coverage area. China has set up 7 pilot projects, encapsulating the metropolitan Shanghai, Beijing and Shenzhen, which enjoy a dominating GDP and a developed industrial system, and the less privileged places, such as Hubei and Chongqing. Based on these 7 pilot projects, China aims to find a feasible way and roll it out national wide.

Secondly is the individualized ETS. Every pilot projects has embarked since 2013-2014 and set up its individualized rules, such as rate of coverage, distribution, data collection and regulations, featuring its own characters.

For example, since these cities and its belonging provinces have their own development features, the pilot place has accordingly adopted different limits on carbon-dioxide emission. They have taken in one billion of carbon-dioxide emission, lower than its European counterpart. But China's ETS system will exceed Europe's in the future. Many carbon intensive industries, like the power sector and the iron and steel industry, have been concluded, making China the second largest carbon market in the world.

Another example goes like this. After two year's practice, most pilot projects find out their own pricing rules, among which Shenzhen has the highest price with its maximum of 113 Yuan and minimum of 20 Yuan.

The pricing rule varies from the emission limit and the assessment, also subject to the time.

## ***2. China's Experience in ETS Building***

Many experiences and lessons have been gained in two year's building of ETS. The pilot project prepares China to build up its national ETS, outlining the rules and frames. The experiences China has gained are:

Firstly, the necessity of China's ETS needs attention. In the past, China only resorted to the demand control to curb the emission, such as supply reduction. However, the government had to pay the price of shutting down the factories. But in today's ETS, corporations can trade their carbon quotas by distribution.

Secondly, sophisticated policies and rules are entailed in every pilot project. Some rules have gone through the National People's Congress, which means the illegitimate operations will be heavily fined. Some other rules have also been approved by the government.

Thirdly, practical measures should be synchronized. No data was collected at corporate level before 2007, nor were the corporations able to collect its carbon emission data. They found difficulties in calculating and reporting. Therefore, the pilot project has required the corporations to calculate their carbon emission and set up various MRV standards according to different industries.

Fourthly, effective communication should be conducted between government and industry. The two parts have knotted good bond in the past two years. The newly fledged ETS entails Chinese government's good policies and the corporation adaptation, where the effective communication is a must, especially in the technical and political level. Technically, the two parts should collaborate on the surveillance, report and distribution of the carbon emission. Corporations hope their voice is heard by government, and their quota requirement and feedback are taken into account. The carbon management has made strides. In the past, corporations or the industries as a whole simply centralized on efficiency, having no idea of carbon management and trading, whereas in the past three years many corporations have employed expertise for carbon management and regulation making. From passive obedience to initiative adaption, corporation managed to control the long-term risk and conduct effective communication with the government.

Fifthly, build a transparent carbon market and carry out regular product up-dating. The carbon emission trading market in essence is a market for exchange. Once legalized, it will unexceptionally have market effects. Therefore, many financial transactions were involved in this market in the

past one or two years, such as carbon fund. This can be further conducted in the secondary market or make the carbon credits as a guarantee for bank loan.

### ***3. Policy advices for the construction of the National Carbon Emission System***

Firstly, geographically expand the pilot place until it is integrated into the global system.

Secondly, the central and the local government take turns to encourage the un-pilot place to be incorporated in the national trading system.

Thirdly, more strict and effective principles and regulations are needed. The preparation of the emission trading system is being carried out in China. At the end of last year, the National Development and Reform Commission (NDRC) published a new interim regulation on emission trade. According to this regulation, China will establish a trading market at the state level from the central government to local ones. The former will take charge of the standardized and unified management, update the interim regulations and establish a stricter compliance system. On the basis of the regulations drafted by the NDRC, the National Congress is entitled to make regulations on a broader sense in order to punish the enterprises breaking the regulations more strictly and to establish a more effective trading system.

Fourthly, the infrastructure development of the nationwide trading system should achieve the goals as follows:

(1) CCER regulation, including the one of insurance and trade. In 2012, the NDRC published the law and regulation of CCER. Two years later, China started the trade of CCER projects. It will compensate the seven pilot projects, and unified market guidelines will be published.

(2) The nationwide unified standards of China's future carbon trading market and registration system. In the future, the amount of carbon emission will be prescribed and allocated nationwide. Since last year, the NDRC has required the data report from provincial government on the major enterprises with the carbon dioxide gas emission of over 1300 tons, thus establishing the nationwide trading system.

The nationwide unified carbon trading system regulations include a management system of two levels, namely the central government and provincial ones. The former is mainly responsible for rulemaking, including the scope of the system, quota allocation and the amount of emission limit. The latter is responsible for the execution of the rules and the emission amount of major enterprises. Meanwhile, provincial governments call for flexibility to a certain degree. For example, if the

project needs to cover more industries and enterprises, stricter rules of quota allocation should be made. They can be adjusted according to those of national level, and relevant compliance rules can also be made. If the enterprises refuse to report the emission data or to pay the fees by the data reported, heavy fines can be imposed on them in accordance with the rules.

*Translator/ Huang Ruixin*

# From Science and Technology to Policy: the Sustainable Development Road of Environmental Protection

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## *1. Interpretation of the structure*

During the 2014 APEC meeting, there appeared a brief blue sky in Beijing. The netizens coined many words and considered it an environmental management with Chinese characteristics. President Xi Jinping, at the APEC welcoming banquet speech, said: "Now the blue sky in Beijing is APEC blue, beautiful but short, soon to be gone after this while. I hope and believe that with our unremitting efforts, the APEC blue will stay." In addition to the APEC blue, environment patients and haze economy are all keywords related to green environment these years. Environmental pollution has become one of the factors affecting public health. As each environmental event touches the sensitive and fragile public nerves, its damage and risk to public health has become more and more prominent.

At present, China's environmental health problems showed the following characteristics. Firstly, the composite of pollution is serious, the exposed population is large, and the large population is exposed to heavy pollution. Secondly, the population is exposed to pollution for a long time and the historically cumulative health effects of pollution are difficult to be eliminated in a short time. Thirdly, the people are exposed to the environmental pollutants in complete pathways and complex and diverse manners, also showing a significant difference between the urban and rural areas. Fourthly, the traditional health issues co-exist with the modern ones. In recent years, China's government departments and research institutes have conducted a series of basic environmental and health investigation and researches. They include environment and health survey in key areas, studies on the impact of urban air pollution on mortality, environmental exposure behavior patterns of the Chinese population, the environment and health risk assessment method studies, environment and health comprehensive monitoring system building, and the analysis of the situation of the impact of the environmental pollution on birth defects. These have produced some results in understanding the adverse effects of environmental pollution on human health and strengthen the education and academic exchange in this aspect. Meanwhile, the results of these studies further provide support for environmental management.

Health is the most important force driving the formulating of

environmental management policy. This year marks the first year of the implementation of the new Environmental Protection Law. And the revised draft of Atmospheric Pollution Prevention Act is also put on the agenda. So the environmental management is shifting from the overall amount control and pollution prevention to quality improvement. The new Environmental Protection Law defines the environmental and health protection system, providing a legal basis and support for accelerating the environment and health work. Article 39 clearly states the main content of the national environment and health work. And this is the first time when the environment and health management work is specified at the legal level. Therefore, it is significant for building an environment-friendly society, solving the outstanding environmental problems endangering public health, ensuring the effective protection of the environment and public as well as promoting sustainable urban development.

But overall, China's is still relatively weak in dealing with and solving major environmental and health issues. From the perspective institutional settings, the overlapping of administrative functions constrains the working of environment and health systems as the environment and health works are not included in the social and economic development planning of local governments. In terms of the scientific research, the current environmental and health studies are in lack of outstanding leaders and in need of a strong supporting team. There is also a short of long-term systematic and basic research, standardized technical methods on environment and health survey and support of the research results for management decisions. In terms of the management tools and methods, there is a wanting in legal systems and standard benchmarks that could truly meet the needs of the environment and health works. Many of the existing environmental management system and management objectives are hardly connected with the health issues. Some important environmental management systems that are closely related to environmental and health issues are yet to be established. Therefore, in order to build an environment-friendly society and effectively protect public health, we need to strengthen the connection between the basic data of scientific study and environment management, following a sustainable development road that features environmental protection.

## **2. Policy recommendations**

From the development trend of the environmental health issues, the health risks of environmental pollution in the future tends to gradually increase. First of all, the danger of environmental pollution for human health will not disappear for quite a long time. The urbanization and aging population exacerbate the health risks. Secondly, the impact of

environmental pollution on the human body features long term, low-dose exposure and chronic disease, etc. The symptoms of the damage to public tend to appear with a lag as its cumulative effect will gradually emerge in the coming period of time. Thirdly, the environmental health event has entered a high frequency period. As it is involving a large number of people and hard to address, with high social sensitivity, it often leads to mass incidents, so we must great importance to it with active response. At present, China is going through an environmental management strategies restructuring. China's major cities, including Shanghai, are in an important period of strategic opportunities in economic and social development and environmental protection. In order to strengthen environmental protection and build a healthy city, we can start from the following aspects.

Firstly, China should start from environmental and health management. While taking appropriate measures to address the current environmental issues affecting public health, China should also the integrate the use of legal, administrative, and economic policies to fundamentally reduce the health risks caused by environmental pollution. China should establish environmental standards formulation and revision mechanism based on health. While formulating and revising environmental standards, the basic principles should be to protect public health. For the chemicals with relatively complete data base, environmental quality standards can be formulated in full consideration of health conditions. China should also establish an environmental capacity estimation method with the population health risk control as the constraints. Therefore by combining the distribution and production of specific regional environmental pollution, one can determine the emission standards of relevant pollutant.

Secondly, environmental and health survey and comprehensive monitoring should be carried out in regions with the prominent environmental pollution issues or where the residents are strongly protesting about the high environmental risks. The loading level of crowd environment pollutants and the health hazards as well as other real conditions should be mastered to determine the regional priority list of controlled pollutants, to formulate the environmental pollution and health damage recognition standards and to provide the basis for the compensation for health damage. The high-risk point of the damage of environmental pollution to health should be screened and identified, in order to prevent health risks. The specific pollutants should be determined according to the regional distribution of environmental pollution sources and the emission of pollutants. Based on the lifestyle of the residents, the monitoring points and differentiated environmental monitoring programs should be arranged reasonably, in a bid to progressively realize the normalization of environmental and health monitoring.

Thirdly, the health risks should be taken as an important constraint for the varied management of various environmental function areas. The health risks of the environmental pollution can be taken as a binding index to develop the regional environmental risk. Based on the environmental health risk assessment, we should rationally plan the cities and industrial layout, designate a "health red line", and guide the population to be distributed to the regions that are fit for habitation. For the region that was damaged by public health risks or harbors the potential risks, strict environmental access policies should be implemented. The addressing of the outstanding environmental issues that affect the public health should be adopted as an important indicator for the environment performance evaluation and assessment. We should establish an environmental performance evaluation and appraisal system that features health effect, urging the local governments to strictly abide by the "health red line" in the development of local economy and urban planning. The "One vote veto" should be implemented on the local governments should there be any major mass incidents resulting from the harm of health due to environmental pollution problems

Fourthly, in response the smog problem that has high public concern currently, we should accelerate the implementation of climate-friendly urban air pollution control strategies. Due to the differences in the economic development model and the energy structure, Shanghai appears to be in a situation where soot, vehicle exhaust and open-sourced and complex pollutions co-exist. On top of this, it is now under the pressure to reduce greenhouse gas emission. Therefore, we need to study the collaborative reduction of air pollution and greenhouse gas emissions relationship and implement a climate-friendly air pollution control strategy. This strategy indicates two aspects. For one thing, the air pollution control measures and targets should be coordinated with the greenhouse substances emissions control measures and targets, in a bid to minimize the mutual negative impact. For another, the air pollution control measures and greenhouse substance emission control should be combined in an optimal way to achieve a win-win result of cutting air pollutants and mitigating climate change at the minimal cost.

Fifthly, we should pay attention to the environment and children's health issue. Children are more sensitive to the harmful factors of the environment as they are much more vulnerable than adults to environmental exposure. It should a common goal of the whole society to provide children with a safe, healthy and clean environment for them to survive, grow and develop. It is suggested that China should make a priority list about the environmental chemicals concerning children's health, further enhance the breadth and depth of public health and



disease monitoring, and gradually establish the research database of the environmental exposures and children's health with plans. We should conduct large-scale long-term tracking research of birth cohort at the national level. In-depth study should be carried out on the health effects of the main environmental chemicals on the growth of children at each development stage. Various efforts should be made to strengthen public and professional decision-makers' about the information exchange and interpretation of research results on the environmental factors that affect children's health, so that the public can be guided to to correctly understand and prevent a variety of possible risks.

Sixthly, we should attach great importance to the obtaining of basic information on environment and health. On the one hand, we should further carried out environment and health survey and use the conventional or special investigation to obtain the data on the status of pollutants condition, exposure way, the crowd pollutant load, the health effects ant other aspects, so that they can provide a strong scientific support for the risk management. On the other hand, we must continue to build the environment and health information management platform, integrate and process various types of data, and form valuable information resources to support the environmental health risk management and decision-making. We should make full play of the role of information in the environmental health-related data resource acquisition, use, processing, integration, digging and other aspects. Through the integration and sharing of various types of data, the efficiency and effectiveness of environmental health management can thus be improved.

Lastly, we must continue to raise the public awareness of the environment and promote the implementation of "Breath and Work Together – Citizen Code of Conduct". We should innovate the forms of public participation, incorporating the environment and health-related information into environmental information disclosure and environmental education. For on thing, the government should organize to publish scientific knowledge on environment and health and timely monitor and correct false and wrong messages. It should also actively make use of a variety of media channels to improve the citizens' understanding of environment and health, to establish an environment and health risk communication mechanism, to positively guide the public opinion, and to eliminate public doubts. For another, companies can join the public welfare initiatives with communities to jointly build environmental protection facilities, improve the environment, and protect the health interests of the community and the citizens. In this way, they could have the understanding and support of the community on the production activities of companies and create a sound community atmosphere.

*Translator/Wang Youping*

# 《中国观》2016年长期征稿启事

为更好地落实新型智库建设，推动科学研究与决策咨询的相互转化，提供更多高质量、高水平的咨询报告与专家建议，复旦发展研究院和上海市高校智库研究和管理中心拟就《中国观》向国内外学者长期征稿。《中国观》以中国当下各领域的热点议题为关注重点，每月上月刊以“国际视角 前沿观点”为主题，选编国外顶尖智库最新中国研究成果，每月下月刊以“中国智库 建言发展”为主题，收录国内智库专家对当前中国热点问题的政策分析。

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