Slowdown of Fast-growing Economies: International Evidence and Implications for the People's Republic of China

Observations and Suggestions

Asian Development Bank

快速成长经济体的增长放缓：国际证据及其对中国的启示
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Abstract
摘 要

- International historical experience indicates that rapidly growing developing countries eventually slow down as income levels rise. Analysis of this experience indicates that the People’s Republic of China (PRC) is approaching per capita income levels at which growth typically slows. 国际历史经验表明，随着收入水平的上升，快速成长的发展中国家的经济增长最终将会放缓。经验分析表明，中华人民共和国 (中国) 的人均收入水平正在接近一个临界点，在此临界点左右的经济增长通常趋于放缓。

- The fact that the PRC has grown at unprecedented levels, maintained a highly competitive exchange rate, sustained consumption at a small share of GDP, and is now facing rapid population aging, suggest the possibility of a growth slowdown in the future. 实际上，中国以前所未有的速度快速成长、维持一个高度竞争的汇率和可持续的消费水平（后者占GDP比重较低）以及面临着人口迅速老龄化的事实，均暗示未来中国经济增长放缓的可能。

- As slowing growth is not a mechanical phenomenon, there are policy options to delay its impact. In this context, several recommendations are proposed to prolong the period of rapid growth in the PRC, focusing on reforms to address the three highest risk factors: exchange rate undervaluation, low consumption and rapid population aging. 由于经济增长放缓是不是一个机械的现象，可以采取适当措施延迟其影响。本文提出延长中国快速增长时期的几点建议，重点在于引入改革以消除三个高风险因素，即汇率低估、消费不足和快速的人口老龄化。
I. INTRODUCTION

1. Economists have long known that late-developing countries have the capacity to grow more rapidly than early developers provided a suitable policy framework is in place. This is the well-known catching up process. Rather than having to pioneer new technologies, late-developing countries can import knowhow from abroad and reap productivity gains simply by shifting underemployed workers in agriculture to export-oriented manufacturing, where those imported technologies are utilized.

2. Periods of high growth in late-developing economies do not last forever. Eventually the pool of underemployed rural labor is drained, the share of employment in manufacturing peaks, and growth comes to depend more heavily on the difficult process of raising productivity in the service sector. Moreover, as an economy approaches its technological frontier, it must transition from relying on imported technology to indigenous innovation.

3. These issues have special resonance for the People's Republic of China (PRC) for at least three reasons. First, the country accounts for a substantial fraction of the world's population. Second, the large and rapidly-growing PRC economy has increasingly been viewed as an engine of growth for the world economy, particularly in the wake of the recent economic global crisis. Third, and most importantly, policymakers in the PRC are currently debating how to rebalance the economy and sustain growth over the longer term in the context of a rapidly aging population.

4. This policy note recommends policies for extending the PRC's period of rapid growth. The recommendations are based on a recent study by the Asian Development Bank (the Study hereafter),¹ which analyzes growth slowdowns in a large sample of countries and time periods that capture the most well-known episodes of slowdowns, including those of many European countries in the early 1970s.

II. SLOWDOWN OF FAST GROWING ECONOMIES: THE INTERNATIONAL EXPERIENCE

5. According to the Study, and based on international historical experience, a fast-growing country typically slows down if it meets the following conditions. First, annual per capita GDP growth rate is above 3.5% for a sustained period prior to the slowdown. Second, the decline in per capita GDP growth is at least 2 percentage points. Third, per capita GDP stands at least at $10,000 in 2005 constant international purchasing power parity (PPP) prices. The third condition reflects that growth slowdowns are a sign of economic maturity rather than inability to grow and develop.

6. One of the main conclusions of the Study suggests that, on average, the period of sustained high growth comes to an end at a per capita GDP of about $16,740 (2005 constant international

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PPP prices). At that point, average growth in the sample of countries slowed from 5.6% to 2.1% per annum. In addition, it has been noted that per capita income relative to the reference country (the United States), and the share of manufacturing in total employment, are also causes of growth slowdowns. The empirical evidence shows that a slowdown typically occurs when per capita income reaches 58% that of the reference country, and when manufacturing accounts for 23% of total employment.

7. The evidence suggests that declining productivity growth accounts for about 85% of the slowdown in GDP growth. In fact, the contribution of productivity growth to output growth fell sharply from 3.04% to 0.89% in the sample of countries. This implies that growth slows down when it is no longer possible to boost productivity by shifting additional workers from agriculture to industry and where the gains from importing foreign technology diminish.

8. Another interesting finding relates to whether slowdowns are more likely in high-investment, high-consumption, or high-government-spending economies. Among the three variables, the study shows that only consumption seems to matter and, as the share of consumption in GDP rises, the probability of a slowdown falls. Furthermore, it is estimated that the probability of a slowdown is minimized when consumption reaches 62-64% of GDP. The Study also suggests that the probability of a slowdown increases with the speed of growth prior to the slowdown, and the level of the old age dependency ratio, the latter being associated with lower saving and labor force participation rates. In contrast, the analysis points out that the degree of financial openness, terms of trade shocks, and changes in political regime do not appear to have significant impacts on the likelihood of growth slowdowns.

9. The impact of government policy on slowdowns was also examined. The Study concludes that the policy that seems to have the biggest effect is the degree of exchange rate undervaluation. Strikingly, undervaluation has a positive effect on the probability of growth slowdowns. That is, the more undervalued a country's currency, the more likely a slowdown. One possible explanation is that countries relying on undervalued exchange rates to boost economic growth are more vulnerable to slowdown inducing external shocks. This is compounded by the fact that real exchange rate undervaluation allows imbalances and excesses to build up, particularly in export-oriented manufacturing.

III. IMPLICATIONS FOR THE PRC AND POLICY OPTIONS FOR SUSTAINING GROWTH

10. Having stated that the probability of a slowdown is highest when per capita GDP reaches $16,740 (in 2005 constant PPP prices), and assuming that the PRC would grow at 9.3% per annum in the coming years, it would exceed the slowdown threshold by 2015. If the PRC grew at a more modest 7% per annum, then per capita GDP would reach the threshold level in 2017. Under any reasonable assumption, the PRC will reach income levels at which growth typically slows within this decade.

2. For purposes of comparison, the PRC’s per capita GDP (constant 2005 international PPP prices) was $8,511 as of 2007, while that of India and Brazil stood at $3,826 and $9,645, respectively.
11. Against this background, and taking into account that growth slowdowns are not a mechanical phenomenon, meaning there are policy options to delay their impacts, several recommendations are proposed that could prolong the period of rapid growth in the PRC. These recommendations focus on reforms to address the three highest risk factors behind economic slowdowns: exchange rate undervaluation, low consumption levels and rapid population aging.

A. Allowing for Greater Exchange Rate Flexibility

12. The PRC’s ongoing shift from low-tech to high-tech manufacturing exports will require structural improvements in productivity and competitiveness as future growth is likely to depend less on capital and labor and more on productivity growth. In this context, greater exchange rate flexibility would give the PRC stronger incentive to pursue productivity-enhancing structural reforms and sustain growth as explained below. The gradual introduction of exchange rate flexibility would minimize potential side effects. While export-oriented businesses and agriculture might be affected in the short term, such impacts would be offset by longer-term benefits. The transitional impacts could be mitigated through increased social spending, a supportive fiscal policy, and strengthened safety nets.

1. Rebalancing the sources of growth. A greater role of market forces in determining the exchange rate would underpin government efforts to rebalance the sources of growth by eliminating the bias favoring investment and exports. Increased exchange rate flexibility would prompt a shift from tradables (manufactured goods) to non-tradables (services), redirecting production toward the domestic market, reducing export dependence, and mitigating income inequality and regional disparities. Further, a stronger exchange rate would also lower the cost of imports and increase household purchasing capacity, resulting in a positive income effect that encourages consumption.

B. Strengthening Domestic Consumption

14. As identified in the Study, a higher share of consumption in GDP reduces the probability of a slowdown, and that is minimized when consumption reaches 62-64% of GDP. These levels are well above the PRC’s current consumption share, which at 33% of GDP, is low relative to other countries at similar income levels.

15. Redirecting public spending. To encourage consumption, increased social spending is preferable to tax cuts because the latter are usually saved. Moreover, given the limited number of taxpayers in the PRC, tax cuts will have a limited effect on overall consumption and domestic demand. A more balanced allocation of public spending away from investment and in favor of social transfers would curb precautionary saving and free up resources for consumption, which in turn will stimulate demand and economic activity. Policies that mitigate the risk and uncertainty faced by households, such as those pertaining to old age, illness, unemployment or injury, will encourage spending over saving.

16. Widening access to finance. Greater availability of consumer credit for durable goods would significantly boost private consumption. As increasing rural consumption is essential to lift national consumption levels, facilitating access to financial services and products in rural areas deserves
particular attention, including the design of specific lending products targeting rural consumption needs. Similarly, affordable terms for mortgages, including the provision of public mortgages and guarantees, will facilitate the demand for low- and medium-income housing, fostering consumption and domestic demand.

C. Addressing Rapid Population Aging

17. Increased longevity and dramatic falls in fertility rates in the PRC during the past three decades have prompted the fastest demographic transition in the world. However, the accelerated path of the transition has transformed the PRC into an aging society. The Study suggests that higher old-age dependency rates significantly increase the probability of a slowdown. Hence, determined policy actions are imperative to address the aging challenge.

18. **Raising the retirement age.** Improved longevity suggests that the retirement age should be revised upward. The retirement age in the PRC was established in 1950, at 60 for men and 55 for women, when life expectancy was significantly lower. Under the current longevity averages, the retirement age could be increased to 65 for both genders in urban areas, while adopting a more flexible approach in rural areas. The common perception that early retirement eases unemployment is misleading. This is supported by many years of evidence in developed economies, where early retirement has not reduced unemployment levels, as early retirement does not free up space for new workers as early retirees continue to work while receiving a pension.

19. Increasing the retirement age will achieve little in the absence of flexible, well-functioning labor markets that can productively employ older workers. One set of policies that would encourage employers to hire and retain older workers include restricting the use of mandatory retirement and enacting measures against age discrimination. Another set of policies that would enhance their employability are expanding training opportunities and improving working conditions and work safety standards for older workers.

20. **Fostering innovation driven-growth.** Further, to promote innovation-driven growth and counteract the impact of a shrinking labor force, substantial investments in R&D and human capital development are essential. Although the government has announced plans to increase R&D spending to 2.2% of GDP by 2015, the target is not ambitious enough to address the challenge. Larger contributions, at 3% of GDP, are deemed necessary to secure competitiveness in global markets and sustain growth. Another key aspect underpinning innovation-driven growth is education, which is essential to absorb foreign technology and knowledge for indigenous innovation to take root. High literacy rates and universal primary education are necessary but not sufficient to sustain growth in the longer term. Tertiary education, and technical and vocational education and training (TVET), have to be fully integrated in the development strategy, underpinned by a culture of excellence, and supported by private and public initiatives.

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3 For further details see ADB O&S *The Socioeconomic Implications of Population Aging in the PRC*, January 2010.
Observations and Suggestions

观察与建议

一、引言

1. 经济学家们早就知道，与发达国家相比，后发国家有能力成长得更快，只要其采取合适的政策。这便是众所周知的追赶过程。后发国家不必依赖先进技术，可以从国外引入其并不拥有的技术，并通过将多余农业人口转移到利用这些进口技术的出口导向的制造业，就可以实现生产率的提高。

2. 后发经济体的高速增长期不会永远持续下去。最终，其多余农村劳动力将出现供给不足，制造业的就业比例将达到顶峰，经济增长将更多地依赖提高服务业生产率的这种艰难过程。此外，当一个经济体接近其技术前沿时，它就必须从依靠引进技术转向自主创新。

3. 这些问题至少有三个理由对中国有特殊的共鸣。首先，中国占世界人口很大一部分。其次，规模巨大且成长快速的中国经济已经越来越多地被视作引领世界经济增长的引擎，特别是自最近的全球经济危机爆发之后。最后，也是最重要的，目前中国的决策者们正在研究和讨论，在人口迅速老龄化的背景下如何调整经济结构和实现经济的长期可持续增长。

4. 这份政策简报提出了延缓中国快速增长期的政策建议，这些建议是根据最近亚洲开发银行的一项研究（以下简称研究）得出的。该研究详细剖析了包括20世纪70年代初许多欧洲国家在内的大量国家的增长放缓和多数著名放缓时期。

二、快速成长经济体的增长放缓：国际经验

5. 该研究以及国际历史经验表明，一个快速成长国家的经济增长通常出现放缓趋势，当它满足以下条件时。第一，在增长放缓之前的可持续时期，它的平均GDP增长率高于3.5%；第二，人均GDP至少下降2个百分点；第三，按照2005年不变价国际购买力平价计算，人均GDP至少为10,000美元。这两个条件反映了经济增长放缓是经济成熟的标志，而不是无力继续增长和发展。

6. 该研究的主要结论之一是，平均而言，在人均GDP达到16,740美元左右（2005年不变价国际购买力平价）时，持续的高增长会将告一段落。在此水平上，样本国家的年平均增长率从5.6%放缓至2.1%。此外应该指出的是，相对参照国（美国）的人均收入和制造业就业人数在总就业人数中的份额，也都是经济增长放缓的原因。经验证据表明，当人均收入相当于参照国的58%、制造业就业人数占总就业人数的23%时，经济增长放缓通常就会发生。

7. 有证据表明，生产率增长持续下降对GDP增长放缓的贡献高达85%左右。事实上，在样本国家，生产率增长对产出增长的贡献从3.04%大幅下降到0.89%。这就意味着，当无法通过将多余劳动力从农业转向工业以促进生产率提高时，当工业引进外国技术获取的收益减少时，经济增长放缓在所难免。

1. 亚洲开发银行经济学工作论文第262期（2011年6月）“快速成长经济体时出现增长放缓：国际证据及其对中国的影响”。

2. 为了比较的需要，2007年中国的人均GDP（2005年不变价国际购买力平价）为8511美元，而印度和巴西的人均GDP分别为3826美元和9645美元。
8. 另一个有趣的发现是，高投入、高消费、高政府支出的经济体是否更容易出现经济增长放缓。该研究表明，在上述三种情形中，仅消费看起来与经济增长放缓关系密切，即如果消费在GDP中的比重上升，则经济增长放缓的概率下降。此外，据估计，当消费占GDP比重达到62%~64%时，经济增长放缓的可能性降到最低。该研究还显示，经济增长放缓的概率随着增长放缓前的经济增长加快和老年抚养系数水平的提高而增大，抚养系数的提高意味着储蓄率和劳动力参与率的降低。该分析指出，相比之下，金融开放程度、贸易条件的冲击和政治制度的变化对经济增长放缓的影响似乎并不显著。

9. 该研究还对政府政策对经济增长放缓的影响进行了研究。该研究的结论是，政策中影响最大的是汇率低估的程度。值得注意的是，汇率低估对经济增长减速有正面作用。也就是说，一国货币被低估，其经济增长越可能放缓。一种可能的解释是，依靠低估汇率以刺激经济增长的国家更容易受到外部冲击导致经济增长放缓。实际汇率低估容易诱发贸易不平衡和外汇储备过多积累的实质性问题更加复杂化，特别是在出口导向的制造业更是如此。

三、对中国的启示以及保持经济持续快速增长的政策建议

10. 上文已经提到，当人均GDP达到16,740美元（2005年不变价国际购买力平价）时，经济增长放缓的概率最高。假设未来几年中国每年经济增速为9.3%，那么到2015年其人均GDP将达到经济增长放缓的临界水平。如果中国GDP以每年7%的速度保持温和增长，则其人均GDP将在2017年达到临界水平。无论采用何种合理的假设，预计中国人均收入在未来十年内达到经济增长放缓所需的水平。

11. 在此背景下，考虑到经济增长放缓不是一个机械的现象，意味着可以采取适当措施延迟其影响。以下是延长中国快速增长时期几项建议，重点在于引入改革以消除三个高风险因素，即汇率低估、消费不足和快速的人口老龄化程。

（一）允许更大的汇率灵活性

12. 由于未来中国经济增长更多依靠技术进步和劳动力而更多依靠生产率增长，中国正在进行的从低技术制造业出口向高新技术制造业出口的转型，需要生产率与竞争力的结构性改善。在此背景下，正如以下所解释的，采取更灵活的汇率政策将有力促进中国追求高生产率的结构性改革与维持经济快速增长。逐步推出有弹性的汇率，将最大限度地减少潜在的副作用。虽然短期内出口导向型企业农业可能受到影响，但这种影响有望被长期收益所抵消。同时，通过增加社会开支、提供财政政策支持以及加强社会保障体系建设，可以减轻这种转型的不利影响。

13. 重新平衡经济增长的动力。在决定汇率方面更多发挥市场力量的作用，通过消除鼓励投资和出口的政策偏差将促进政府重新平衡经济增长动力。增加汇率灵活性会促进从贸易品（制成品）转向非贸易品（服务），使生产和更多地转向国内市场，减少对出口的依赖，缩小收入差距和地区差距。此外，更为强劲的汇率也将降低进口成本，增加居民的购买能力，进而产生积极的收入效应，鼓励消费。

（二）增强国内消费

14. 正如本研究所指出的那样，消费占GDP的比重更高，经济增长放缓的概率就越小。当消费占GDP比重达到62%~64%时，经济增长放缓的概率为最小。这个水平远远高于中国的现有消费率，中国消费占GDP的份额为33%，低于具有类似收入水平的其他国家。
15. **调整公共支出结构**。为了鼓励消费，增加社会开支比减税效果更好，这是因为后者通常促进储蓄增加。此外，鉴于中国的纳税人数有限，减税对扩大整体消费和内需的作用有限。公共支出的更均衡的分配（减少投资）和社会转移支付倾斜，将有效遏制预防性储蓄，释放消费资源，后者反过来又会刺激需求和经济活动。减少居民所面临的风险和不确定性，如年老、疾病、失业或受伤等，将促进支出和减少储蓄。

16. **拓宽融资渠道**。改善耐用品消费信贷的可得性将大大刺激居民消费。由于不断增加农村消费是提升国民消费水平必不可少的，因此如何促进农村地区的金融服务和产品（包括针对农村消费需求的特定贷款产品的设计在内）的可获得性，值得特别关注。同样，提供包括公共抵押和担保在内的可承受抵押贷款，将促进中低收入家庭的住房需求，进而促进消费和内需。

**三）应对人口迅速老龄化**

17. 过去三十年，中国人均寿命的延长和生育率的急剧下降，已促使中国成为世界上人口结构转型最快的国家。然而，这种快速转变促使中国迈入了老龄化社会。该研究表明，较高的老年抚养率将显著增加经济增长放缓的概率。因此，采取果断的政策行动以应对老龄化的挑战已迫在眉睫。

18. **提高退休年龄**。寿命的延长意味着应上调退休年龄。中国的退休年龄定于预期寿命明显较低的1950年，当时将退休年龄定为男性60岁和女性为55岁。根据目前平均寿命，城镇男女退休年龄可以提高到均为65岁，而在农村地区可以采用更灵活的方式。提前退休可以减轻失业的普遍看法是一种误导。发达经济体的多年经验表明，提前退休并不一定减少失业水平，这是因为提前退休的人在领取退休金的同时继续工作，并不会为新进入劳动力市场成员释放就业空间。

19. 在僵化和不健全的劳动力市场，老年工人可能很难找到工作。在这种情形下提高退休年龄毫无作用。为此，需要采取的一套政策是：通过限制滥用强制性退休，制定禁止年龄歧视的措施，鼓励雇主雇用和留住老工人。需要采取的另一套政策是，不断扩大培训机会，改善工作条件，提高老年工人的工作安全标准，以增强他们的就业能力。

20. **促进创新驱动型增长**。为促进创新驱动的经济增长和提高劳动力供给减少的影响，对研究和开发（R&D）以及人力资本开发的大量投资是必不可少的。虽然中国政府已经宣布，到2015年R&D支出占GDP的比重将增加到2.2%，但这一目标仍不足以应对挑战。因此，将R&D支出占GDP比重提高到3%，对于确保中国在全球市场上的竞争力和保持经济持续快速增长是必要的。另一个支撑创新驱动型增长的关键是教育，教育对于吸收国外技术和知识以促进自主创新是必不可少的。高识字率和普及初等教育是必要的，但不足以维持长期经济增长。因此，以优的文化为基础，由民间和公共投入为支撑的高等教育、技术和职业教育和培训，需要在发展战略中进一步充分整合。

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3. 有关详情，请参看2010年1月《观察与建议》中的“中国人口老龄化的经济社会影响”
About the Asian Development Bank
关于亚洲开发银行

ADB’s vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries substantially reduce poverty and improve the quality of life of their people. Despite the region’s many successes, it remains home to two-thirds of the world’s poor: 1.8 billion people who live on less than $2 a day, with 903 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

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亚行的远景目标是实现没有贫困的亚洲和太平洋。亚行的工作旨在帮助其发展中成员显著地减少贫困，改善人民生活质量。尽管亚太地区发展迅速，但该地区的贫困人口仍然占全世界贫困人口总数的三分之二：18亿人口日均生活费用低于2美元，9.03亿人口挣扎在日均生活费1.25美元的贫困线以下。亚行致力于通过共享式经济增长、环境可持续的增长和区域融合等战略来减少亚太地区的贫困。

亚行总部在菲律宾首都马尼拉，现有67个成员体，其中亚太地区成员48个。它主要通过政策对话、贷款、股本投资、担保、赠款以及技术援助等手段向成员体提供帮助。