

Unclassified

DAF/COMP/GF(2012)1

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

08-Feb-2012

English - Or. English

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

Cancels & replaces the same document of 03 January 2012

Global Forum on Competition

COMPETITION AND COMMODITY PRICE VOLATILITY

Contribution from Mr. Scott Davenport

-- Session I --

This contribution is submitted by Mr. Scott Davenport (Executive Director, Strategic Policy and Chief Economist, New South Wales Department of Trade and Investment, Australia) under Session I of the Global Forum on Competition to be held on 16 and 17 February 2012.

JT03315572

Complete document available on OLIS in its original format

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

DAF/COMP/GF(2012)1
Unclassified

English - Or. English

COMPETITION ISSUES IN AGRICULTURAL SUPPLY CHAINS

-- Contribution from Mr. Scott Davenport * --

Abstract

1. Concerns about the effects of commodity price volatility on developing countries and their causes have been well documented. A key causal factor is agricultural supply chains and prices being poorly integrated with domestic and international markets. The result is often under-developed and unsophisticated agricultural sectors, incapable of effectively responding to contemporary market demands and growth opportunities.

2. The paper explores the important role that competition plays in ensuring efficient price transmission in agricultural supply chains, which in turn drives efficient public and private investment in agriculture.

1. Introduction

3. Commodity price volatility impacts adversely on developing countries because food makes up a significant component of the household budget of poor consumers.

4. Price volatility will continue due to factors such as adverse seasonal conditions and climate change, however, poorly designed supply chain regulation in both developed and developing countries is a further important causal factor.

5. An important part of the solution therefore lies in striving for more efficient price transmission in agricultural supply chains. Prices that are unnecessarily impeded by poorly designed regulatory constraints limit the ability of agriculture to respond to growing and changing consumer demands, and importantly, act as a disincentive for efficient public and private sector investment which could otherwise mitigate price risk and uncertainty.

6. With traditional agriculture policy having its origins in the historical 'development' objectives of governments, it is almost universally the case that agriculture has been heavily subsidised and protected from competition by way of input subsidies, subsidised commodity prices, regulated marketing arrangements and border protection.

7. While these measures may have been appropriate at certain stages of agricultural development, they now act as impediments. Price signals not in tune with international and domestic demand are at odds with sustainable development and provide incentives for inefficient public and private investment, and limited sectoral adjustment, innovation and productivity.

* Note prepared by Mr. Scott Davenport, Executive Director, Strategic Policy and Chief Economist at the New South Wales Department of Trade and Investment, Australia.

8. It is inevitable therefore that progressive governments will increasingly focus on, and build capacity in, assessing how supply chain regulation impedes competition and price transmission. The following sections contain initial discussion about how traditional agricultural policy settings impact on competition with reference to work recently completed in India and funded by the Australian Centre for International Agricultural Research (ACIAR).

2. Competition Policy, Regulatory Reform and Competition Law

9. Discussions about competition policy often focus on the application of competition or trade practices law which is at the formative stages of development in most developing countries. Competition policy is, however, a term also applied to that separate government activity of regulatory, or microeconomic, reform. Here the focus is on removing regulation which unnecessarily restricts competition, guided by 'market failure' principles.

10. Competition law relates specifically to regulating the anti-competitive behaviour of businesses, whereas regulatory reform involves removing those impediments to competition which advantage certain sectors in their 'bidding' for labour and capital resources.

11. It is nevertheless the case that there are close linkages and synergies between the application of trade practices law and competition based regulatory reform. In particular, both need to be progressed together to facilitate an orderly transition from traditional 'industrial policy' to trade practices law, where appropriate.

12. On a less positive note, recent observations and concerns in relation to progressing balanced competition policy programs are:

- a tendency for the enthusiastic embracing of competition law, almost as a diversion from addressing significant and longstanding regulatory restrictions on competition; and
- the focus of competition policy otherwise often being driven by external international pressures and consequently focussing on partial aspects, such as reducing border protection or deregulating certain sectors, rather than on building internal capacity to consider 'behind the border' reforms that are in a countries own interests to progress.

3. Supply Chains, Price Transmission, Competition Impediments & Productivity

3.1 *Productivity 'drivers'*

13. There is compelling evidence that market orientated agricultural policy reform leads to higher rural incomes, increased agricultural productivity and reduced rural poverty. The reason is that price signals are the 'drivers' of efficient public and private investment, and not just in agriculture, but in other important areas such as support industries, infrastructure development and research. It follows that if supply chain regulation is poorly designed and price signals are distorted, then public and private investment will be inefficient and inconsistent with exploiting a countries natural, competitive, production advantages.

14. Useful discussion on this issue has been made by Australia's Productivity Commission ([Annex 1](#)) with the clear message that policy reform, policy review processes and the 'openness' of economies, hold the key to productivity gains, rather than simply increasing expenditures on subsidies and R&D.

15. The Commission usefully identifies changes in prices (terms of trade/pressure on profit margins) as an important 'driver' of innovation and productivity, whereas factors such as new technology, the ability of farmers to apply those technologies and RD&E are identified as 'enablers' (i.e. the enabling responses that price changes stimulate).

16. A clear understanding and appreciation of the role that prices play as ‘drivers’ of productivity is critically important to effective public policy prescription. All too often we continue to hear largely technical public policy solutions (more research, the further development of irrigation schemes, etc) being proposed to problems such as price volatility, declining agricultural productivity and poverty. It follows that research and rural infrastructure investments need to be ‘directed’ by price pressures and opportunities, otherwise they simply load-up the input side of the agriculture productivity equation.

17. An outcome of the present lack of reliance on efficient pricing is decelerating agricultural productivity growth in many developing countries (see discussion of productivity developments in developing and transition economies in Annex 1). This is the result of ever increasing quantities of private and public inputs being applied to a fixed set of ‘favoured’ agricultural enterprises, resulting in progressively lower levels of supply response. Unfortunately, this phenomenon is also often being associated with increasing levels of environmental degradation.

18. This naturally leads to the conclusion that competition reforms which enhance the efficiency of price transmission are perhaps one of the highest priorities for addressing price volatility and international food security. But unfortunately, much international and domestic policy prescription continues to reflect an ongoing fascination with technical solutions. Competition and institutional reforms tend to come a poor second, reflecting a widespread lack of appreciation of (or disinterest in) the dynamic capacity of pricing reform to drive and determine efficient levels of productive activity and investment.

19. A related concern is that in an environment where agricultural production in many countries remains heavily distorted, the possibility arises that well-meaning research efforts focussed on improved farm practices and developing new technologies, may in some cases be acting to insulate farmers from international and domestic price pressures, and in so doing, are acting to reduce pressures on governments to engage in regulatory supply chain reform.

20. It follows that an important focus for competition policy includes the efficiency of administrative processes by which public resource are allocated to agriculture in areas such as international research and infrastructure development.

21. Finally, it is worth noting that an indicator of the ongoing technical focus of much agricultural policy is the desire of many countries to have agricultural growth targets as the centrepiece of rural policy. Such targets are nearly always linked to ongoing subsidy programs intended to ‘drive’ or ‘force’ growth, instead of growth outcomes being autonomously determined by the ‘efficiency’ of policy settings.

3.2 Poor regulation unnecessarily impedes competition and resource allocation

22. In implementing competition policy regimes it is important to appreciate both the positive and negative effects that government regulation can have on price transmission and resource allocation.

23. For example, typical forms of intervention in agricultural supply chains include input subsidies (electricity, water, fertilizers, etc), output subsidies (minimum support prices), statutory wholesale marketing arrangements, the activities of government trading authorities and various forms of border protection. Some comments on each of these follow, drawing on recent research.

24. Input and output subsidies, now prevalent in many countries and argued on either food security or farm income grounds, distort resource use by maintaining and attracting resources into agriculture. Put another way, they act as a disincentive for labour and capital adjustment within agriculture, between agriculture and other sectors of the economy, and between countries. They also provide recipients with a competitive advantage over other businesses that ‘bid’ for capital and labour, and so have the further

adverse and often unforeseen effect of bidding up input prices, lowering the competitiveness of other industries and lowering national and international growth and income.

25. When argued on equity or income support grounds, again, subsidies are highly inefficient due to the bulk of assistance going to large farmers least in need of assistance, and by impeding sectoral growth, a secondary effect is to in fact lower current and prospective farm incomes, which ironically is the opposite of their stated objective.

26. Statutory wholesale marketing arrangements, such as those established under India's Agricultural Produce Marketing Acts, have a certain level of intuitive appeal, but have been found to unnecessarily restrict competition through licensing arrangements which protect wholesale marketing agents. These policy settings result in commission agents extracting 'above-normal' wholesale margins resulting in increased consumer and lower producer prices. By distorting consumer prices and depressing producer prices and acting more broadly to increase marketing costs and impeding direct sales, this regulation also appears to be having the effect of depressing rather than enhancing agricultural development in India.

27. Similarly, the Food Corporation of India (FCI), established to (i) provide Minimum Price Support to farmers; to (ii) distribute food grains to the poor through the Public Distribution System; and to (iii) manage the buffer stock, has been found to be highly inefficient and working against the interests of food consumers and producers. McCorrison & MacLaren (2011a) find, for example, that the first two FCI objectives could be addressed by more efficient (less restrictive of competition) policy mechanisms. They found that if a deficiency payment scheme replaced FCI procurement based on Minimum Support Prices, and a food stamp program replaced the Public Distribution Scheme, social welfare would increase by as much as 82 percent due to lower consumer and higher producer prices.

28. Border protections such as the onion export ban imposed by the Indian Government in 2010 to lower consumer prices is also highly distortionary and contradictory to promoting domestic food security. McCorrison & MacLaren (2011b) found that the burden of the ban fell heavily on domestic onion producers in the form of lower onion prices. Of critical interest, however, from a regulatory reform perspective, were the further findings that:

- more competitive domestic supply chains, as would be achieved by reform to wholesale farm markets and the FCI, would have decreased onion prices to consumers by as much as 44-58 percent and increased producer prices by 15-19 percent, making the export ban unnecessary; and
- while the export ban achieved no change in the underlying level of consumer price variability, increasing the efficiency of firms operating within domestic supply chains would deliver a 46 percent reduction in domestic consumer price variability.

29. Finally, it must be said that while these various agricultural supply chain regulations individually act to depress agricultural development, their combined effects are potentially alarming, with an ongoing and persistent legacy of subsistence dominated agriculture and regional poverty.

4. Competition Policy

30. Competition policy requires regulations to be subject to regular review in accordance with competition (or 'public benefit') principles. This generally requires (i) the objectives of regulation to be clearly identified; (ii) an assessment of whether those regulatory objectives clearly relate to addressing accepted forms of market failure; (iii) an assessment of whether the regulation is that which least restricts competition; and (iv) an assessment of whether the benefits of the proposed regulatory intervention are likely to exceed the costs.

31. If this test were applied to each of the traditional forms of industry regulation discussed previously, the conclusion would likely be that none of them effectively address any form of market failure (i.e. information deficiencies, anti-competitive behaviour, externalities or the provision of public goods) and consequently, by distorting prices and competition, in most cases they will have had a range of unintended effects (costs) culminating in escalating food price inflation and decelerating productivity growth.

32. This doesn't mean, however, that government should not intervene in agricultural supply chains. It just means that there are better ways to do it, which generally require governments to stop 'dabbling' directly in the affairs of farm businesses, and to instead focus on strengthening the markets in which farm businesses operate. Some very positive, pro-competition, examples of government intervention include the following.

- Many problems faced by the farm sector relate to information deficiencies, particularly in areas such as technology adoption, environmental management and commodity marketing. In developing countries where farm adjustment has been impeded, it follows that any move to more market based regulation will require a significantly increased and ongoing effort in this area.
- Anti-competitive behaviour can be efficiently addressed through competition or trade practices law. Unfortunately, traditional regulation has tended to focus on differences in 'market power' between buyers and sellers. It is now well accepted, however, that differences in market power per se do not represent a market failure, but are a normal characteristic of markets. A legitimate market failure, however, is that of 'market power abuse', which tends to be sporadic rather than continuous, and will normally relate to particular businesses rather than industry as a whole. It follows that statutory marketing arrangements, such as those involving price setting, over-regulate the problem and so give rise to a range of attendant resource use distortions (costs).
- Externalities, such as adverse water and pollution costs imposed on agriculture by other industries, and biosecurity threats to agriculture, can often be addressed effectively by a combination of information and regulatory programs.

Supply Chain Reform and New Opportunities for Agriculture

An interesting aside here is the possibility that with new research and policy efforts, agriculture could play an important role in helping to address externalities such as global warming. Various forms of carbon farming and the recognition of agricultural carbon offsets could lower GHG mitigation costs for other sectors and offer agriculture new income streams that could also facilitate policy change away from existing subsidy regimes (see Gujral, Davenport & Jayasuriya 2010).

- Public (and industry) goods, such as the provision of infrastructure, provide extensive opportunities for governments to support agriculture in ways that directly increase industry competitiveness and growth. There are also a range of efficiency increasing investments where, in the absence of industry funding arrangements, individual businesses will tend to under-invest, such as in certain types of research and development and pest and disease control.
- Governments also have an important role to play in addressing the social equity and welfare needs of the poor, and for many developing countries decoupling government assistance from agricultural input and output prices may cause some level of distress, particularly in the short term. Managing this transition is therefore an important focus for public policy and an area where the success or otherwise of welfare programs in developing countries warrants close scrutiny and information sharing.

It is also the case, however, that for most developing countries the best form of welfare support will be the growth and adjustment opportunities that come with regulatory reform of domestic agricultural supply chains. Note also that this will be complimented by the removal of regulatory impediments limiting labour adjustment out of agriculture and into other sectors of the economy.

33. When taken together, it can be seen how an ‘agricultural policy’ based upon these types of market based government initiatives can be viewed as a portfolio of complimentary government interventions, able to be adapted over time to changing market conditions, and which constantly add value to the sector in the form of ongoing market efficiency dividends.

4.1 *Competition policy: institutions, principles and public policy research*

34. Competition reforms are ‘sensitive’ because they involve the redistribution of income away from certain well represented interest groups, to the broader community. Institutions and processes therefore need to be established which are capable of identifying and communicating these trade-offs in a way that positively engages with stakeholders and the broader community.

35. An important issue which therefore warrants more attention in a developing country context, is the effectiveness of alternative institutional arrangements by which competition policy can be implemented. In Australia for example, National and State governments agreed to a process whereby (i) the additional tax revenues flowing to the national government as a result of a future program of efficiency increasing reforms were estimated, (ii) the forward schedule of national and state regulatory reforms was developed and agreed to; (iii) followed by the development of an annual payment schedule to the states for the successful review and implementation of the agreed reforms.

36. A National Competition and Consumer Commission was also established to monitor the rigour with which legislation reviews were conducted, with penalties imposed on state governments in the form of the national government withholding competition payments where they judged the States as having breached their review obligations (Davenport, 2007).

37. In addition to effective institutions and a commitment to the ongoing scrutiny of agricultural (and other) regulation that significantly restricts competition, review processes will be complimented by government efforts aimed at engaging with and changing the attitudes of the broader community, such as:

- the regular monitoring of farm incomes and sectoral productivity to demonstrate the impacts of reform (or lack of reform); and
- ongoing programs of independent public policy research aimed at identifying key reform opportunities and evaluating reform efforts to date in order to enhance the welfare and productivity dividends of the government’s regulatory portfolio.

5. Conclusions

38. Reforming regulatory impediments in agricultural supply chains offers perhaps the greatest gains in addressing commodity price volatility and international food security. However, the importance of competition to efficient price transmission and the fundamental role prices play in ‘directing’ efficient public and private investment continues to be under-emphasised.

39. There is therefore a strong case for competition policy and associated public policy frameworks to be re-visited and re-emphasised, with a strong focus on developing appropriate institutional arrangements and on striking a better ‘balance’ between competition based regulatory reform and the application of competition law.

40. There is also a strong case for much higher profile international efforts in researching and communicating those factors explaining agricultural productivity on a country by country basis, and for the adoption of a less ambiguous economic framework in relation to the ‘drivers’ and ‘enablers’ of productivity and income growth.

41. Finally, in recognition of the need for significant supply chain regulatory reform in many countries and accelerated rates of adjustment, it will be appropriate to also closely scrutinise the extent to which administratively/technically determined international and domestic assistance and research programs are ‘dampening’ efficient agricultural supply chain price signals.

ANNEX 1: POLICY REFORM AND PRODUCTIVITY

-- Extract from Chadha & Davenport (2010) - Agricultural Policy in the BRICS Countries --

1. The ‘drivers’ of agricultural productivity have long been the subject of research, however, analysts have struggled to develop a useful public policy framework which well captures the causal factors involved.

2. Australia’s Productivity Commission has gone some way to correcting this problem with its ‘theme chapter’ in its 2007-08 Annual Report titled *‘Enhancing Australia’s Productivity Growth’* (Productivity Commission, 2008). The paper identifies Australia’s increasing multifactor productivity growth (MFP) through the 90’s and the subsequent slowing post 2000, with agriculture being one of the sectors most affected. The Commission notes that in the late 80’s and 90’s market competition increased due to factors such as:

- international trade reform;
- increased labour market flexibility;
- macroeconomic stability;
- financial market efficiency; and
- better regulation of infrastructure providers.

3. This enabled the reorganisation of production and work practices which allowed firms to reduce costs and take advantage of technology developments. They then posed the question of whether these reforms and associated productivity gains have run their course, with the prognosis that “further policy reforms are needed if Australia is to continue to improve living standards while meeting the challenges of demographic and environmental change”.

4. The productivity framework developed by the Commission identifies ‘incentives’, ‘flexibility’ and ‘capabilities’ as underpinning innovation.

Understanding Innovation

Incentives – the external pressures and disciplines on organisations to perform.

Flexibility – the ability to make changes to respond effectively to market pressures (incentives).

Capabilities – the human knowledge capital, as well as infrastructure and institutions, that are needed to make the necessary changes.

5. Importantly, the Commission highlights that innovation is not just about research and development spending, but about continual learning and experimenting by firms and responding to client needs, and therefore incentives, flexibility and capabilities are highly interactive.

6. The supply-side driven R&D model is questioned on the basis that incentives are required to drive change, to present opportunities and to apply capabilities. They conclude that “competition provides the fundamental incentive for organisations to pursue changes necessary to succeed, through innovation and productivity gains”.

7. Relevant to agricultural policy, the Commission notes that while barriers to international trade and domestic contestability can dull incentives for innovation and productivity, so too can production and investment subsidies which insulate firms from more competitive rivals.

8. Further evidence presented by the Commission in support of the framework is that much of the innovation on which productivity improvements at the firm and economy-wide levels depend, does not involve technologies developed by innovating organisations. For the bulk of innovation activity, they therefore argue that competition provides sufficient incentives for private enterprises, without the need for taxpayer support. So, while recognising the importance of factors such as appropriate levels of education and R&D as necessary conditions, they are not sufficient conditions, and of themselves will not directly ‘drive’ productivity. Instead, incentives such as those presented by policy reform are found to be the fundamental drivers of productivity growth.

9. The Commission’s public policy framework is therefore of fundamental importance to unlocking further rounds of productivity improvements in the agricultural sector of many developing and transition economies. The clear message being that policy reform, policy reform processes and the ‘openness’ of economies hold the key to these gains, rather than simply increasing expenditures on subsidies and R&D.

The Link between Policy Reform and Productivity: Some Recent Studies

10. Fuglie and Schimmelfennig (2010) consider agricultural productivity growth in China, India, Indonesia, the former Soviet Union and Eastern Europe on the basis that these countries are large agricultural producers and therefore important to international food security. In reference to a range of studies, they report that India and China have experienced accelerated rates of multi-factor productivity growth following policy and institutional reforms, but that China has experienced much greater growth which is attributed to more fundamental institutional changes and greater structural transformation of their economy.

11. In Indonesia, an important source of productivity growth has been the increasing opportunity associated with “greater diversification into high-valued and export commodities and declining reliance on growth from traditional food staples”. In the former Soviet Socialist republics and Eastern Europe, productivity growth was found to be aligned with the various transition stages of these economies, with all countries showing a close link between productivity growth and the pace of economic and institutional reforms.

12. They further reported that for the 1978-2004 period, agricultural output grew by 4.6 percent in China, 4.0 percent in Indonesia and 2.5 percent in India. Circumstances contributing to these outcomes were the reduced rates of growth of rural populations in China and Indonesia due to improved absorption rates into other sectors of their economies, which contrasted with India’s expanding rural population.

The Key Conclusion

“In all three countries institutional and policy reforms that strengthened peasant agriculture and liberalised markets are considered important by creating incentives for farmers to allocate resources more efficiently and exploiting their sectoral comparative advantage. This has proved to be a pivotal source of productivity growth in the agricultural sectors of these countries”.

Fuglie and Schimmelfennig (2010)

13. Nin-Pratt et al (2009) provide further insights into the agricultural productivity performance of China and India by correlating structural breaks in TFP for the two countries with policy reforms. They too found strong acceleration in agricultural TFP in China after 1979 and in India after 1974, but found that China's agricultural sector has clearly outperformed India's due to more fundamental policy and institutional reforms.

14. In China, growth in the manufacturing sector was found to be important in absorbing agricultural labour, and in so doing, provided incentives for labour saving technology adoption in agriculture. The very limited changes to Indian agricultural and manufacturing policy are therefore found to explain India's slower productivity growth. They further found that as a result of policy reform in the two countries, GDP per capita more than doubled in India and increased seven-fold in China.

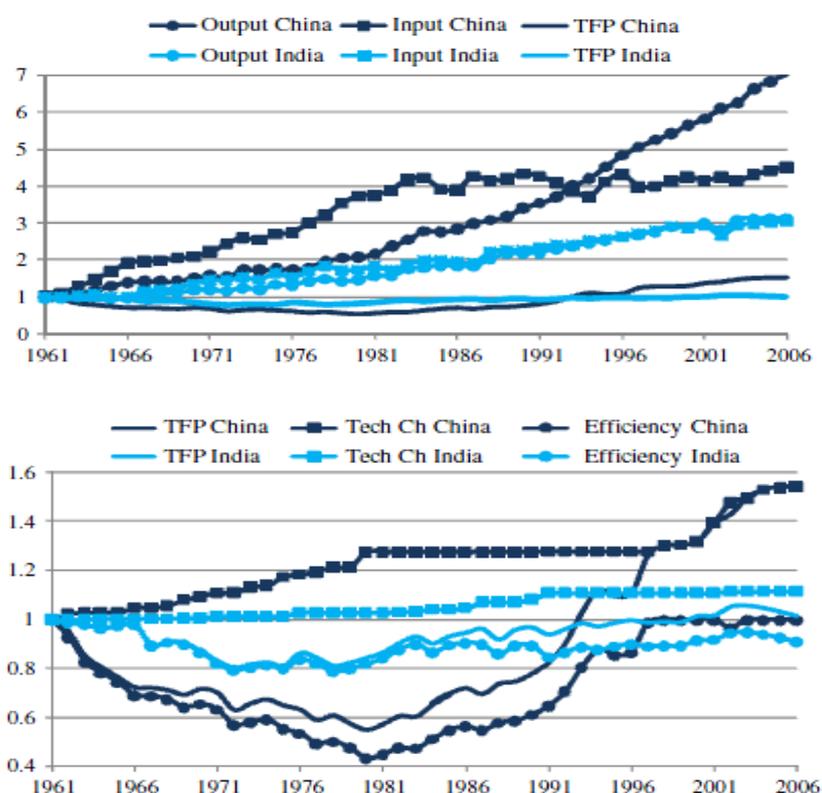
15. After the reforms in both countries, the authors report further differences, with China's growth linked to growth of the industrial sector, reduced trade barriers and foreign investment. India's reforms during the 80's were less aggressive, with an important outcome being 10 percent of China's population remaining below the international poverty line of one dollar per day, compared to more than one third of India's population.

16. From Figure 1 it can be seen that in China, TFP growth is low during the 1974-83 period, but strongly accelerates during the 1980's and 90's to around 5 percent per annum. In India, agricultural TFP was negative prior to 1974, and then increased gradually to only 0.3 percent over the 1991-2006 period. India's TFP growth was constrained due to a lack of improvement in technical efficiency which declined from 1961 to the late 1980's, but then increased slowly. In 2006 they found that agricultural production efficiency was 20 percent less than what it could be and similar to the 1960's. Significantly, the authors find that the data contradict the expected positive effect on India's agricultural productivity of the early green revolution period from 1965-1966 to the mid-1970s.

17. Results for the reform period in India and China are therefore found to be markedly different. They find that:

...agricultural growth benefited from more fundamental institutional reforms in agriculture that transformed the sector, increasing efficiency and accelerating technical change. No equivalent change is found in India, where agricultural policy changes were mainly adjustments to reduce the negative effects of policies that were not favourable for agriculture, in most cases by increasing subsidies for inputs, credit etc. After the 1991 reforms, the negative effects of macroeconomic policies on agriculture were substantially reduced, but no major policy changes toward agriculture were put in place. In contrast with China, no structural change in India's agricultural TFP series could be found during the reform years.

Figure A1. Cumulative agricultural productivity growth and its decomposition into technical change and efficiency in China and India



Source: Nin-Pratt et al (2009)

18. A further study linking policy reform with agricultural productivity is that titled ‘Reforms and agricultural productivity in Central and Eastern Europe and the former Soviet Republics: 1989-2005’ (Swinnen and Vranken, 2009). Importantly, the authors found that the reform of regulations associated with the communist era initiated major readjustments in factor allocations and consequent productivity growth.

19. A particularly important finding was that factor adjustments and the associated growth and productivity gains are critically dependent on certain preconditions, such as factor market reforms elsewhere in the economy. This in turn gives rise to some sense of ‘efficient reform sequencing’ as being highly relevant to how agricultural sector reforms are considered in transition economies.

20. These reform preconditions include:

- the ability of other sectors to absorb surplus agricultural labour thereby reducing labour availability in agriculture and encouraging new technology adoption;
- land reforms and privatisation which reduce adjustment costs in response to commodity deregulation and which enable the gains from agricultural policy reform to be distributed more efficiently; and
- access to commercial credit to enable efficient farm level capital upgrading decisions to be made in response to further policy reforms.

21. Reflecting the importance of these preconditions, the authors found that for each of Central Europe, the Balkans, the Baltics and the European CIS, partial productivity indicators fell following the policy reform period followed by recovery, with the extent of the declines and recoveries related to the extent of pre-reform distortions.

REFERENCES

- Chadha, R. & Davenport, S. (2011), Agricultural Policy in the BRIC Countries: Discussion Paper, prepared as part of the ACIAR project 'Facilitating Efficient Agricultural Markets in India: An Assessment of Competition and Regulatory Reform', National Council of Applied Economic Research, New Delhi.
- Davenport, S. (2007), Reform of Australia's Statutory Marketing Arrangements: Lessons for India's Reform Program, paper presented to the 51st Annual Conference of the Australian Agricultural and Resource Economics Society Conference, Queenstown, New Zealand.
- Fuglie, K. & Schimmelfennig, D. (2010), Introduction to the special issue on agricultural productivity growth: a closer look at large, developing countries, *Journal of Productivity Analysis*, Springer, 33(3), 169-172.
- Gujral, J., Davenport, S. & Jayasuriya, S. (2010), Is there a Role for Agricultural Offsets in Sustainable Infrastructure Development: A Preliminary Assessment, *India Infrastructure Report 2010: Infrastructure Development in a Low Carbon Economy*, Oxford University Press, New Delhi.
- McCorrison, S. & MacLaren, D. (2011a), 'Options for Restructuring the Indian Wheat Market', paper presented at the Final International Workshop 'Facilitating Efficient Agricultural Markets in India: An Assessment of Competition and Regulatory Reform', New Delhi, India, 15 February.
- McCorrison, S. & MacLaren, D. (2011b, in-print), 'Competition, Supply Chain Inefficiency and Export Bans: A Framework for Analysing Issues in the Indian Onion Market', paper prepared as part of the ACIAR project 'Identifying Competition Issues in the Indian Onion Market'.
- Nin-Pratt, A., Yu, B. & Fan, S. (2009), Comparisons of agricultural productivity growth in China and India, *Journal of Productivity Analysis*, Springer, 33(3), 209-223.
- Productivity Commission (2008), Annual Report, Productivity Commission Annual Report Series, Commonwealth of Australia, Melbourne, Australia.
- Swinnen, J. F. M. & Vranken, L. (2009), Reforms and Agricultural Productivity in Central and Eastern Europe and the Former Soviet Republics: 1989-2005, *Journal of Productivity Analysis*, Springer, 33(3), 241-258.