

**Thinking Ahead on International Trade (TAIT)**

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# **New Trade Issues in Food, Agriculture and Natural Resources<sup>1</sup>**

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## **Abstract**

Trade in primary products – food, agricultural products, and natural resources – poses several new challenges to the WTO system. This background paper covers a number of the most pressing concerns including: i) globalization of food systems, the emergence of private food standards, and the SPS Agreement, ii) the possible scope for trade rules that facilitate investments in genetically-related food-productivity innovations by constraining fragmentation of the global market, iii) the scope for WTO rules on “directed exports” (where foreign-owned firms export primary goods from the host nation back to their home-nation at less than the world-market price, iv) the scope for food-trade rules that constrain government policies when food prices are high, to balance those that constrain behaviour when they are low.

The Graduate Institute’s **Thinking Ahead on International Trade (TAIT)** programme is a four-year research programme devoted to the analyses of medium-term challenges facing the international trade system in general and the WTO in particular. While founded on scholarship, the analysis is undertaken in association with public and business sector actors. The working method seeks advice and input from the public sector (policymakers, diplomats, international civil servants, and government officials) and the private sector in all matters but especially when it comes to gathering views, prioritising issues and developing action plans to address the challenges identified.

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Before coming to Stanford in 1978, Prof. Josling taught at the London School of Economics and at the University of Reading (England). Born in England, he received a BS in agriculture from the University of London, an MS in agricultural economics from the University of Guelph (Canada), and a PhD in agricultural economics from Michigan State University.

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## **New Trade Issues in Food, Agriculture and Natural Resources**

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International trade in foodstuffs, agricultural products and natural resources is at the heart of several emerging challenges to the multilateral trade system and the parallel systems being developed at a regional level. In these sectors issues of economic development, equity and national sovereignty become entangled with safety and security concerns. Property rights and access to raw materials mix with price stability and terms of trade trends as drivers of policy. This background paper touches on some of the most significant of these challenges and suggests some questions that could serve as a research agenda in this broad area of international commerce.

How to slice the cake? The paper starts with the food trade issues as these have been elevated in public awareness in the past two years as a result of a significant rise in prices. Issues of food safety and food security have pushed their way to the front of the agenda. There is a strong link between food trade and agricultural trade, though the issues in the latter case are somewhat different. Agricultural trade issues have focused on the disciplines applied to industrial country farm policies and the associated market access for products considered “sensitive”. The Doha Round addresses in a significant way the further reform of agricultural trade rules and we shall assume in this note that the Round eventually reaches a conclusion. Natural resource issues are much diverse, ranging from fisheries access and management to oil and natural gas trade. Issues have often to do with subsidies granted to domestic firms either directly or through the restraints on the export of raw materials. Other issues include property rights to indigenous resources, trade rules governing biofuels, and the investment in and ownership of land and mineral rights in resource-rich countries. Many of these natural resource issues have been traditionally absent from the WTO agenda, though this could well change.

The links between these issues and broader development questions has always added to their significance. Many of the tensions surrounding trade in primary products and commodities arise because of their implications for development. Indeed the developing countries as a whole would appear to have the most interest in the

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maintenance of an open trade system in these areas. But the interests of developed countries have often driven the trade agenda in agriculture, minerals, fisheries and timber in the past. So the rebalancing of the multilateral agenda as developing countries increasingly press for their own priorities to be included, may see more activity in some of these areas of trade.

The issues raised here are themselves a reflection of the underlying performance of the global economy. For example, economic growth facilitates the shift of labor from agriculture and reduces adjustment costs. Such growth also increases the price of oil and other energy sources as well as primary commodities in general. Oil-importers may suffer even as the global economy prospers. Volatility of prices also has political and economic implications in the area of trade in raw materials and commodities: in foodstuffs the impact may be devastating on vulnerable populations. So the question of the response to price variations and the responsibility for ameliorating them is once again (as in the 1970s) on the table. Secular price trends of primary products relative to manufactured goods has also become a topic for speculation and concern in the recent past, linked to growth in emerging economies and to underlying productivity growth.

### ***Food Trade Issues***

The global food system has seen dramatic changes over the past twenty years, and the trade rules are in the process of catching up with these developments. The main manifestation of globalization of the food sector has been the establishment of global supply chains: with the driving force behind such chains being supermarkets and food processors. The increasingly aware consumer has played a willing role in this development. In developed countries the successful attempt by retailers to package attributes of health and environmental responsibility with foodstuffs, along with animal welfare and in some cases labor conditions, has transformed the economics of food trade. In developing countries consumers have increasingly embraced the availability of non-local foods and the better reliability and quality control that can come with firm size and management expertise.

A further trend is noticeable in developed country markets, towards local foods and more diverse distribution systems – such as farmers’ markets. Though still a small part of total food consumption, this trend poses some interesting questions for food trade. The balance between increased globalization of the food system and the “localization” of food supplies has implications for developing country food suppliers. Longer food chains have integrated many developing countries into the global marketplace, though also leading to a bifurcation of the suppliers into those that have the capacity to meet strict standards and those that don’t. But the push for local food in several developed countries has made it somewhat harder for overseas suppliers to compete. The organic foods movement has exacerbated this problem by a series of private standards that are both market specific and costly to adopt. Once again foreign suppliers often struggle to meet the conditions for entry into lucrative markets.

This has set up some potential conflicts in the area of food trade. Governments negotiated at length to establish the rules for national health and safety regulations

contained in the Sanitary and Phytosanitary (SPS) Agreement. This circumscribed the ability of governments to set import standards that were not justified by risk assessment and based on scientific evidence. But consumers in many cases decided that governments and their scientific advisors were underplaying certain subjective risks to health and to the environment. Headline issues such as biotech crops became grist for mill in the competition for market shares among retailers. But this was merely the tip of the iceberg, as private standards tied to particular marketable attributes began to proliferate. The SPS Agreement has been very successful in increasing transparency, particularly in the area of animal and plant diseases, and curbing the egregious use of SPS barriers for the protection of domestic producers, but has not been so effective in cases where public sentiment has dominated scientific consensus. And the role of private standards, unconstrained by the need to exhibit scientific justification, further complicates an already difficult corner of the trade system.

The question that countries will have to face in the next few years is whether to try to amend the SPS Agreement to allow government regulations to respond to consumer concerns that have not been found to have scientific merit. Exporting countries clearly see this as a possible end to the SPS Agreement as a constraint on governments: who is going to arbitrate on whether subjective fears pass some test of credibility and legitimacy? But in the absence of some sort of solution to this problem the SPS Agreement will increasingly become irrelevant for most food trade. This could be compounded by the adoption of standards related to such longer-term health topics such as obesity. The SPS Agreement relates to regulations governing the safety of foods, but eating too much of a “safe” food can cause health problems. So it is not inconceivable that agencies such as the World Health Organization could find itself advocating policies that are in contradiction to the SPS Agreement.

### ***Agricultural Trade Issues***

The questions raised above have an implication for agricultural trade. But in addition there are a number of underlying agricultural issues that are only indirectly tied to food trade. These issues include the future of developed country farm policies, the path that emerging and developing countries will follow in this area, and the relationship between agricultural and other prices.

The period since 1985 has seen some major changes in the domestic agricultural policies of the developed countries. Reform started in such countries as New Zealand and Chile with the notion that the government could not artificially provide the demand for farm products in small exporting countries in the light of macroeconomic distortions and locational disadvantages. It spread to those countries that were stifling their farm sectors with marketing arrangements that provided little incentive for quality and kept down the price to producers. Together with the paradigm change in the management of the economy, toward deregulation and the provision of more appropriate incentives, the change in agricultural policies away from market intervention towards direct payments has now transformed the policies and provided a new environment for agricultural trade. In the EU this process accelerated over the

1990s as farm policy shifted to include environmental and quality aspects of food production, culminating in the reforms of 2003 that virtually eliminated for arable agriculture any link between farmer support payments and commodity market conditions. Progress in the US has been less linear, with a move in 1996 to delink payments and production but some recidivism in 2002 and 2008 as commodity-based price support programs proved to have strong support in the farm lobby and in Congress.

So a key issue for the next decade or so is whether the reform process will continue, so that all developed countries will in essence have rural policies that emphasize land stewardship and rural development, nutrition policies that focus on quality and food safety, and agricultural policies that are aimed specifically at issues of productivity enhancement and risk management. Such a world would be consistent with a more open trade system and the removal of the many impediments that developing countries face in supplying food to the industrial country markets. But reform could become unhinged if attitudes changed perhaps as a result of food shortages and a collapse of world trade. It would not be difficult for those who would prefer the old policies of protection of producers by governmental management of markets to make the case that the “free market” had not worked. And the benefit of keeping the major developed countries moving along the same path, albeit at different speeds, is clear. It would be difficult to imagine the EU following a reform agenda that removed government from involvement in commodity markets if the US were moving in the other direction by increasing that involvement. So this is one area where the backstopping of the multilateral trade system is particularly useful. The Doha Round will play a major role in ensuring that the market-oriented reforms of the past twenty years in developed country farm policies are not reversed.

The more fundamental question is whether developing countries will follow the same pattern with respect to the protection of domestic markets and producers. Much of the impetus for public intervention in developed country markets came as a reaction to different rates of growth in the agricultural and the non-agricultural sectors. Strong growth in manufactures and services can put pressure on the government to intervene to help agriculture. But how that help is given, and under what conditions is important. The Agreement on Agriculture will be significant in its constraints on this choice.

There are two “models” from which to draw lessons. The first is that of Latin America, that entered the 1980s with considerable protection for its agriculture and highly regulated domestic markets. These countries, often with the support of the World Bank, the InterAmerican Development Bank and the International Monetary Fund began a process of “structural adjustment” that emphasized opening up the agricultural sector along with other parts of the economy. As a result, applied tariffs even on agricultural products are now relatively low, though the bound rates are often higher. This type of agricultural policy has been conducive to growth of trade and to stronger regional markets. However, the process could always go in reverse: serious income problems in rural areas of Latin America could spur a resurgence of

protectionism. A disruption of exports to the US and Europe may be enough to bring two decades of relatively open trade policies to a close.

The second model that may be followed is more typical of Asia, where agricultural trade policy owes more to debates about self-sufficiency and poverty alleviation than about access into the lucrative US market. This has led to an increase in agricultural protection as countries experience rapid economic growth. The pattern has been repeated in several countries since the 1960s, first in Japan then in Korea and now in China and India. How the emerging countries manage the stresses of relative agricultural decline will determine the extent to which they will agree to further liberalization in agricultural trade. The hold-up in the Doha Round in July 2008 illustrated the problem. Negotiators failed to agree on modalities that included a special safeguard mechanism for developing countries that would have allowed them to raise tariffs to protect their agriculture when world prices fell.

The resolution to this dilemma facing developing countries will set the agenda for the next set of trade negotiations in agriculture. The Doha Round, if successful, will have eliminated export subsidies and some policies such as export credit guarantees, aid to parastatal exporters and export enhancement through food aid. Domestic support will have been reduced to a fraction of existing limits, and no longer allow countries to maintain expensive trade-distorting price support systems. Tariffs will have been sharply cut, and will be weakened even further by the multiple concessions granted through regionals and bilaterals. What will remain is relatively high protection for a small group of products, including rice, cotton, dairy and sugar (sometimes called the white goods). The reduction of these tariffs will have to wait until the next set of negotiations.

What will be left of the domestic support programs is direct payments (not linked to output or to price) and infrastructure support for the sector. It is likely that some clarification of the way in which domestic support is notified may be needed within a year or two. Market price support (in the Aggregate Measure of Support) is now virtually without meaning for most developed countries: the administered prices, the eligible quantities and the reference prices are increasingly irrelevant to the question of policy reform. And the green box, that was intended to capture trade-neutral subsidies, now includes a raft of payments tied to environmental aims.

### *Productivity and Investment*

Preoccupation with the constraining of developed country farm policies has led governments to neglect some more fundamental long-run issues. The recent period of high food prices has refocused the attention of countries the extent to which investments are needed to maintain and increase the capacity of the agricultural sector to meet the demands of a growing population. Expenditure on research has been lagging in recent years, as a result of shifting priorities for public investment and lack of financial incentives for private investment. One might expect there to be a resurgence of public investment in the production of basic foodstuffs if the price levels stay reasonably high, but this is not immediately visible. Complementing this

could be an increased interest in infrastructural improvements that are often the constraint on the marketing of local foods in developing countries. The ability for small and medium sized farms to be incorporated into the supply chains of modern food retailing will remain a key to the impact of these trends. This demand-driven growth in agricultural output and productivity will have a beneficial impact on trade and be consistent with a continued opening up of markets, particularly in the developing world. South-south trade will grow under such conditions to the advantage of the balance in the global economy.

Whether or not public investment in agriculture is increased, the role of the private sector will be crucial in keeping supply in line with demand. It is less clear that private investment will be forthcoming in the amounts necessary. The experience of investment in biotechnology, where consumer acceptance has been slow in many parts of the world has undoubtedly had a salutary effect on the attitude of private companies. A critical question for the future is whether the public authorities are likely to become more engaged as a partner in private sector investment in new technologies that are based on genetic advances. The ability to steer the genetic makeup of plants and animals to improve their productivity will certainly exist: the extent to which this ability is translated into products acceptable to consumers is still uncertain. Trade rules play a vital role in such matters is crucial. Investment is unlikely to be forthcoming if global markets are fragmented by regulations on biotech and on other scientific approaches to increasing food supplies. Intellectual property rights need to be protected in a way that does not exacerbate income disparities.

#### *Agriculture and environmental issues*

The enthusiasm with which new investments in biofuels were made over the past few years stands in sharp contrast to the cautious approach to biotechnology. If oil prices remain high there will be many opportunities that open up for the use of agricultural crops in energy production. But again there is the potential for a backlash from civil society: already the uncertain contribution of biofuels to environmental goals and the undoubted exacerbation by ethanol production of the recent spike in food prices has taken some of the bloom off the biofuels expansion. In this respect, private investment will follow directly from changes in government policy. If the various subsidies and tax breaks for ethanol and biodiesel were to be reduced, along with the mandates for the incorporation of biofuels in transportation requirements, the private sector would find many of its investments unrewarding. Trade rules could help in these circumstances. If these products were more freely traded (and be produced in ways that minimized environmental impacts) the investment in renewable fuels from agricultural biomass could be considerable.

The impact of increased concern over environmental issues on the trade system is likely to become more significant in the future. Once the concept of life-cycle analysis of products takes hold in national legislation the differentiation of goods by their method of production becomes inevitable. The trade system is set up to recognize goods by their product attributes not by the process attributes that one needs to evaluate a carbon footprint. So until this disconnect can be resolved, one would expect

increasing conflicts over the issue of the environmental impact of the production and processing methods of traded goods.

On the assumption that the trade system can eventually classify goods in a way that allows environmental regulations to coexist with trade rules then the issue becomes whether this will increase or decrease trade in foodstuffs? Increasing product differentiation is generally positive for trade: one could imagine land-rich areas benefiting from the switch in demand for food from more extensive agricultural systems. But this may depend on the environmental impact of transportation services. The effect of, say, carbon taxes on food trade patterns may be to encourage local production at the expense of overseas supplies.

At the global level the debate has centered on whether to work purely through environmental institutions or to build environmental considerations into trade rules. The negotiations on the trade in “environmental goods and services” in the current Doha Round suggests that the WTO may become more involved. On the other hand the talks have for now floundered on the definition of environmental goods.

### ***Natural Resources***

Anticipating emerging issues related to trade in natural resources have their own set of conceptual and analytical challenges. At a fundamental level, natural resources are in part a reason for trade rather than a tradable item as such. Mineral resources and oil can be extracted and enter into trade. Climate and scenery can be exported through tourism or exploited through inward investment. But most natural resources form the economic basis for various sectors of the domestic economy and so are involved in trade only in an indirect way. This section will highlight a few such resources where trade issues are likely to arise in the near future.

One natural resource tied intimately to the agricultural potential of a country is its farmland, packaged with climate and soil attributes. As an archetype “fixed” resource, it is hardly ever considered in the context of international trade. Agricultural labor and entrepreneurs have, of course, moved whenever possible to farm better or more abundant land in other countries. One tends to think of these migrations as being in the past, with limited and controlled movements of farm labor still tolerated. But the investment in overseas farmland is by no means an historical relic. Many countries have benefited from allowing foreign nationals to hold land and operate farms, and this trend could well intensify.

Moreover, in recent years, governments and parastatal bodies have begun to explore such investments as an aspect of food security policy. This purchase of farmland by other governments or private corporations reached a peak in 2008 when prices were high and certain governments feared being caught in a situation where supplies of basic foodstuffs were not available. The trade implications are yet to be seen. Private firms can of course sell products to whom they wish. But what privilege would a firm

owned by a foreign government have when supplies were tight and that government wished to import at less than the going price? Would this constitute state-to-state trading? Or would it be a case of discrimination and hence a potential violation of Article I?

Another natural resource closely aligned to food and agriculture is a nation's fisheries. The tension between managing the global commons and exploiting particular fish stocks has been around for centuries. For years a subject of contention, the issue of fishing rights is now largely settled. The more recent manifestation of the problems is that of overfishing of various species. Loose forms of cooperation among the major fishing countries may be inadequate to contain the problem. So far, the links with the trade rules in the WTO have been tentative: the discussion in the Doha Round about restricting fisheries subsidies on environmental grounds is a start but insufficient to resolve the broader problem. One would expect this area of natural resource trade to be more prominent in future, with additional institutional innovation needed.

Trade in forestry products has a long history and generally gives rise to few problems. But environmental issues focusing on the destruction of tropical forests have come to the fore in the past two decades. Governments have sometimes given support to private NGO initiatives to label timber on the basis of whether it was sustainably harvested or whether it represented the destruction of habitats deemed worthy of preservation. Some of these issues hinge on process characteristics that may pose problems of discrimination. But enshrining such actions in a multilateral environmental agreement could make the apparent conflict with trade rules of less consequence.

A longer-standing trade complaint in the area of forest products has surrounded the question of access by domestic firms to state-owned timber at concessional rates. Stumpage charges were at the heart of the US-Canada softwood lumber dispute, but there are many other examples of similar preferential treatment for local firms.

A further issue is emerging with regard to natural resources such as timber and trade in minerals and ores. This has to do with the question of export taxes and embargoes. Importing regions, including the EU, have begun to formulate strategies that would reduce the likelihood of shortages in raw materials as a result of intense competition from faster growing economies. China is often cited as a country that has been assiduous in lining up long-term supply relations with other countries, through investment and ownership. But the same phenomenon can have a different cause. Developing countries can, and do, restrict raw material imports in order to give their own processors a competitive advantage. This practice of "differential export taxes" is akin to tariff escalation on the part of importers. It distorts markets with the objective of retaining value added activities at home.

## ***Commodity Markets and Growth***

One theme links the areas of food, agriculture and natural resources: they are all strongly linked to the health of the global economy. Continued strong growth in the emerging countries would seem to be a prerequisite for further liberalization of trade. When off-farm jobs are available the improvement in market access for farm products is politically more acceptable and economically more advantageous. Consequently, it is reasonable to assume that steady growth in the world economy, particularly in the developing world, would be a fertile environment for the further liberalization of trade in agricultural products and an eventual convergence between the treatment of agriculture and of non-agricultural goods in multilateral trade rules.

However, the key question is whether such growth brings with it pressures that constrain the opening up of markets. One such impact of growth is on the price of commodities and in particular on the price of oil. Though some agricultural producers will gain from the higher commodity prices, many will find that higher input costs outweigh any benefit from higher selling prices. Another by-product of growth is its uneven impact on rural-urban income distribution. If the growth is concentrated in urban-based export industries then the political demands for assistance for rural areas will tend to increase. As exchange rates will tend to appreciate in rapid-growth countries, farmers will face growing competition from imported products. So growth brings further pressures on domestic producers to become more efficient or move to non-farm jobs. And the reaction of the government may well be to try to protect rural industries so as to alleviate the pressure for migration.

## ***Price Volatility***

Trade policy in agriculture may be as much affected by price variability than the absolute level of prices. If so, then the question to ask is whether we are in for more unstable conditions in trade and global agricultural markets? And, if so, in what way will this impact on trade policy in agriculture? Price volatility is a function in the main of production fluctuations and the level of stocks. Production fluctuations may well increase in the future, as global warming changes weather patterns and makes agriculture marginal in certain regions. More extreme weather events may also be one product of global warming. Stocks would acts to smooth out these fluctuations, but the levels of carryover stocks tend to have been lower in recent years. During a period of low prices the cost of holding stocks increases and the benefit of having those stocks decreases. Neither the private sector nor the public sector has the incentive to hold stocks through these low-price periods. However, as prices rise, the lack of stocks leads to panic buying. The political reaction in exporting countries can also exacerbate price spikes, as export controls and taxes operate to keep supplies at home.

Price instability can undermine the legitimacy of the global market as a place in which countries can buy food supplies on a regular basis and make use of trade to supplement domestic production. Even exporters benefit little from price fluctuations, and will drive prices down when surpluses begin to appear. The WTO rules are currently unbalanced: they spring into action when prices are low but do little to constrain government action when prices rise. So export subsidies are constrained and tariffs are bound, but export taxes are not limited and export embargoes barely

mentioned. The ability of the world trade system to respond in times of price volatility is likely to be tested severely in the future, and some creative institutional arrangements may be needed.

Among the most important issues in the short to medium term is whether the terms of trade for primary products is likely to resume its downward trend. In 2008 it was becoming plausible to argue that food and agricultural prices were on a secular upward trend as a result of strong demand from emerging markets and slower growth in productive capacity. Similarly, the prospects for metals and minerals looked as if strong demand would be the dominant force in the market. Even though many commodity prices have fallen back, they are still high by historical standards. Whether these prices (including that of oil) rise again as the global economy resumes vigorous growth is likely to have a fundamental impact on trade relations.