

# Improving Prospects for Agriculture and Food Security through International Trade - The Free Traders Win the Arguments but the Protectionists Get the Votes

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**William A. Kerr**

Fellow of the Canadian Agricultural Economics Society  
University Distinguished Professor  
University of Saskatchewan, Canada



# Improving Prospects for Agriculture and Food Security through International Trade - The Free Traders Win the Arguments but the Protectionists Get the Votes

by

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**Abstract:** At the end of the Second World War economist Frank Knight could legitimately claim that in the great debate over free trade versus protectionism that those arguing through the medium of economic theory for free trade had been victorious. This conclusion was broadly accepted. Protectionism, while nowhere vanquished, remained particularly prevalent in agri-food trade. This paper explores why this was the case. Protectionist policies in agriculture have, over time, created considerable policy rents that have been capitalized into fixed assets in the sector, especially farm land. Long-standing protectionist policies are now vociferously defended to protect those enhanced asset values. Since the end of the Uruguay Round in 1994, additional protectionists have come to the fore. Some richer developing countries now wish to support their farmers in similar ways to those used by developed countries in the past and chafe under the existing restrictions on trade distorting policies, and resist further liberalization. Further, *new* protectionists in the form of consumers, environmentalists and anti-globalization activists have arisen further limiting the potential for future liberalization and, more recently championing self-sufficiency as a solution to food security. Thus, the array of protectionists is larger than in the past, and some of them bring new protectionist arguments meaning that the victory of “free trade” in the debate is now questioned. Given the expected future growth in population, and the resulting need to expand trade in agri-food products, rising protectionism may put food security, at least for the world’s poorest communities, at considerable risk.

**Keywords:** agriculture, food security, protectionism, trade, vested interests

# **Improving Prospects for Agriculture and Food Security through International Trade - The Free Traders Win the Arguments but the Protectionists Get the Votes**

## **Introduction**

One of the great debates in economics has been, and remains to this day, centred on the relative merits of trade liberalization versus protectionism. It dates back to the dawn of economic science and was one of the reasons for Adam Smith's penning of the *Wealth of Nations* in 1776.<sup>1</sup> While advances in economic science tended to support the case for liberalization (Kerr, 2007a), the weight given to those arguments by decision-makers was consistently less than if welfare maximization was their goal. The ever strengthening economic arguments in favour of trade liberalization had reached the point which elicited economist Frank Knight's (1951, p. 3) comment that "The free traders ... win the debates but the protectionists win the elections." In his mind advances in economic theory had ended the debate. The anomaly was the persistence of protectionism. Sixty-five years later, protection continues to persist, and no more prominently than for trade in agricultural and food products. This paper delves into the question of why protectionist policies are so prevalent and persistent in the agri-food sector. It also examines some forces that have come to the fore since a commitment to the goal of liberalization was enshrined in the General Agreement on Tariffs and Trade (GATT) – now the World Trade Organization – in the late 1940s and have, to a considerable degree, been enlisted as additional arguments in support of protection. The paper also examines the consequences of acceptance of those new protectionist arguments for the achievement of food security as the world faces the challenge of feeding 9-plus billion people by 2050 (Evans, 2009).

The paper is organized as follows. The next section outlines the paradigm that underpins the primacy of economic arguments in favour of free trade and which was the spur for the liberalizing objective of institutions such as the WTO and preferential trade agreements. The reasons why trade policy making in agri-food products has not, historically, given much weight to the conclusions of the ruling economic paradigm are then outlined and the reasons for the persistence of protectionist measures in the sector are explained. In the following section, the more recent dimensions of protectionism are explored. This is followed by a discussion of protectionism in the context of ability to achieve food security goals over the period to 2050. The prospects for achieving significant liberalization through trade negotiations – for both multilateral and preferential agreements – is discussed. A final section provides some conclusions.

## **Agri-food Trade – Why is there so much Protection and Why Does it Persist?**

Starting with Adam Smith, one of the major threads in the development and refinement of economic theory was the contribution that economic insights could provide to the policy debate regarding protectionism versus liberalization. The end point of that evolution in economic thinking was the neoclassical model that became the ruling paradigm of the discipline. The neoclassical trade model was the result of the systematic stripping away of non-essential institutional and other constraints to lay bare the underlying forces that explained trade patterns. One strong conclusion of the neoclassical trade model was that engaging in international trade is welfare enhancing. The upshot of the stripping down of economic theory to its core elements was to remove from protectionists any ability to claim that their arguments could be identified with serving the public interest on the basis of economic reasoning (Kerr and Perdakis, 1995). Arguments for protectionism were identified as the pleadings of vested interests, and nothing more.

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<sup>1</sup> An accessible version of Smith's classic can be found at Smith (2009).

This removal of legitimacy from the advocates of protection made their attempts to influence public policy much more difficult. To this day they crave legitimacy, which manifests in ongoing attempts to find trade policy justifications in the forces that shape modern society.

The powerful logic of the neoclassical economic model has had a profound effect on society, including policy makers. The general proposition that engaging in trade is welfare enhancing has been widely accepted. One seldom hears politicians come out against engaging in trade and trade liberalization. Of course, they may couch their ruminations on trade in terms of the need for *fair* trade or a *level playing field*, but if trade is fair and the field level then they support trade. In other words, they have bought the logic and conclusion of neoclassical trade theory (even if they do not fully understand its nuances nor can they articulate how they reached their belief).

The neoclassical trade model – or at least its partial equilibrium comparative statics version – also had considerable influence on the design of trade agreements, particularly the GATT (Kerr, 2007a). It was the reason that trade liberalization was included as an objective of the GATT (and carried over to the WTO) and can be seen in everything from *like products*, to the expectation that only firms (and not consumers or others in civil society) would ask for protection, to the long run goal of liberalization, to measures of welfare (Kerr, 2010). Preferential trade agreements also tend to reflect the neoclassical paradigm in terms of their objectives.

While the neoclassical trade model has had considerable influence, this does not mean that it is fully accepted as a guide by policy makers. This is because the neoclassical trade model takes no account of *adjustment costs* (Leger et al., 1999). In stripping away of constraints to arrive at the neoclassical trade model, a major assumption is made that resource adjustments are costless; that resources can move from less efficient sectors to more efficient sectors, say as a result of changing international competitiveness or the removal to trade barriers, without incurring costs. Politicians, however, must often factor potential adjustment costs into their policy making. Further, gains from trade tend to occur over the long run while adjustment costs are incurred over shorter time horizons. Potential adjustment costs are weighed against gains from trade by politicians who, based on their subjective weightings, may wish to extend or maintain protection to prevent, or slow, the incurring of adjustment cost by groups in society. Vested interests lobby hard to increase the weight given by politicians to potential adjustments costs in their policy making. Thus, the trade policy landscape tends to reflect a balance between the politicians understanding that open trade is beneficial and their need, at times, to extend protection to groups in society. All actual trade policy lies somewhere between free trade and autarky. The relative weighting given liberalization and protection tends to vary depending on a range of economic and political factors.

While protection is observable across all sectors, it has been particularly prevalent in the trade of agri-food products. For example, whereas over the process of liberalization facilitated by the GATT, from 1947 to the end of the Uruguay Round of negotiations in 1994, industrial tariffs were reduced from very high levels at the end of the Second World War to an average of less than five percent (Nassar, et al., 2007). Tariffs on agricultural products, however, remained substantially higher on average. Further, GATT disciplines were extended to export subsidies and domestic support for industrial goods but waivers to these disciplines were secured for agricultural products until the conclusion of the Uruguay Round. Even after Uruguay Round Agreement on Agriculture (AoA), the disciplines on subsidies remained much less constraining on their use for agricultural products than other products (Brink, 2011). Further, agriculture has been one of the reasons for the inability to conclude the Doha Round of WTO negotiations that began in 2001 (Martin and Mattoo, 2011).

Protectionists arise in any sector facing a threat from foreign competition; the question is why their lobbying has been particularly effective in the agricultural sector?<sup>2</sup> Further, the success of agricultural protectionists has been widespread both in developed and developing countries. The reason for protectionist's success in agricultural trade lies in the perceived role for trade in the broader context of agricultural policy. Agricultural trade policy has always been harnessed to achieving the central goal of agricultural policy and not as part of policy initiatives to broadly garner the benefits of trade for the wider society.

The dominant economic force in the agricultural sector for a century and a half has been technological change. Technological change in agriculture has not tended to be based on singular new transformative technologies but rather, of the *grinding* sort, whereby productivity increases at approximately two percent per year, year in and year out (Alston, 2010). Further, the technological improvements have tended to be labour-saving. Increasing productivity, combined with a labour-saving bias, has meant the shedding of farmers from the sector. It has been the heart of the process whereby developed countries have gone from a situation where half the population struggled to feed the other half – at best – 150 years ago to the farming sector comprising five percent or less of the population. The way this was accomplished was through the market where technological change increases output, driving down prices so that the most technologically efficient farmers survive while those less able or willing to adopt new technologies become uncompetitive and suffer from low incomes and are eventually forced to exit the sector.

This exit of farmers from the sector created significant adjustment costs for individual farmers, their families and the broader society. Exit from farming also often meant the loss of assets such as the primary residence as well as the business, hence, imposing larger adjustment costs on farm families relative to urban dwellers. Further, it also meant leaving the social networks that provide broader support to families – increasing the adjustment cost. The low incomes of many of those remaining on the farm is also seen by policy makers as a hardship that should be addressed through policy. As a result, the central preoccupation of agricultural policy in most developed countries has been to intervene to slow down the process of exit. Success in achieving this goal has proved elusive despite many billion dollars having been spent on it.

Trade policy has been harnessed to this effort. Imports were perceived as undesirable because they meant fewer farmers. Exports were perceived as desirable because they meant more farmers. Keeping imports out of the market through trade barriers was seen as a means of achieving the central agricultural policy goal of slowing exit from the sector despite the costs imposed on consumers' food expenditures. Subsidizing exports also aided in increasing the number of farmers despite the increased cost for consumers and taxpayers (Gaisford and Kerr, 2001). Domestic support assisted in the retention of farmers despite the cost imposed on taxpayers and foreign competitors (Johnson, 1991). Only when the costs imposed on trading partners by agricultural policies began sour other aspects of international relations did countries agree – in the Uruguay Round – to curb the further expansion of their trade distorting agricultural policies (Josling, 2007).

Once created through trade or domestic policy, policy rents tend to become capitalized into the value of fixed assets, often farmland (Kerr, 2007b). Capitalization increases the resistance to the liberalization of trade or reduction in subsidy policies (Gaisford and Kerr, 2001). One only has to look at the fiercely fought

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<sup>2</sup> Debates over protectionism in agriculture have a long history that predates the post-Second World War recasting of trade relations through the General Agreement on Tariffs and Trade. In Canada debates over agricultural trade predate the nation's coming into being. See, for example, Kerr (1986) and Kerr and Forgrave (2002).

battles over reforms to the EU's Common Agricultural Policy (CAP), US sugar policy or Canadian dairy policy – where there are very large, and in the Canadian dairy case, obvious (i.e. production quota values) capitalized policy rents involved. Hence, while it might be argued that the long battle to retain farmers, at least in developed countries, has largely been lost, those farmers that have survived own assets whose value has been greatly enhanced from policy interventions. They have a lot to lose and can be expected to be tenacious in their resistance to anything they perceive as threatening the value of those assets.

Trade agreements have not been able to significantly influence agricultural policy in ways that would threaten the existing value of assets. While limits have been accepted on the ways subsidies are paid (e.g. export subsidies, domestic support), for example, the existence of the unfettered Green Box of non-actionable subsidies has simply meant that government support is paid in different ways. Whole farm payments and the like act to freeze the farming sector at its current size – in other words given both import restrictions and subsidies expand the size of the sector beyond that which markets would support (Gaisford and Kerr, 2001), changing to income support of existing farms keeps the sector at the policy expanded size. In the case of barriers to imports, they remain a contentious issue in the Doha Round with developing countries insisting that developed countries reduce their import barriers while developing countries largely retain theirs – and, hence, for developing countries there is an excuse for no progress being made. In the recent preferential trade agreements such as the Comprehensive Economic and Trade Agreement (CETA) between Canada and the EU and the Trans-Pacific Partnership (TPP) *sensitive* products' import barriers such as those protecting Canadian dairy products and US sugar markets remained largely untouched (Kerr and Hobbs, 2015).<sup>3</sup>

While the focus (but not necessarily the rhetoric) of agricultural policy in developed countries has shifted from retention of farmers to protection of policy inflated asset values, this is not true for some developing countries. As economies of developing countries become richer, governments have more resources to expend on policies. In the case of both China and India, they are expending more and more on farm subsidies, attempting to retain farmers on the land. They are falling into the same trap as was the case for developed countries in similar phases of their development. While China couches its policy rational in terms of promoting social stability through limiting rural-urban migration and self-sufficiency, the underlying motivation is clear. In the case of India, the rational for increased farm subsidies is expansion of stockpiles to provide food security for consumers. The effect is seen by developed countries as expanding output at the expense of trading partners (Khorana et al., 2014). The argument is centred around the removal of the limits on domestic support agreed in the Uruguay Round by developing countries and is a major contentious issue at the WTO. It is largely separate from the Doha Round impasse (Kerr, 2015).

The bottom line is that significant trade liberalization in the agri-food sector in the near future is unlikely. Developed countries want to maintain the status quo in aid of shoring up asset values while at least some developing countries seem determined to follow the path of developed countries in attempting to slow the exit of agricultural producers from the sector.

### **The “New” Agricultural Protectionists**

It is hard to pinpoint the exact date but not long after the last successful round of multilateral trade negotiations in 1994, new *requestors* of protection against imports of agri-food products became active in the trade policy sphere. These *new* protectionists were primarily comprised of consumers, environmentalists or anti-globalization activists. They began lobbying their governments for protection and

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<sup>3</sup> One exception appears to be Japanese tariffs on beef.

the existing trade agreements provided no avenue upon which governments were allowed to respond to these *new* protectionist pressures (Kerr, 2010). This has led a great deal of stress on the existing multilateral system for trade – including the violent confrontations with protestors at WTO Ministerial meetings.

The reason why there were no provisions for other interests in society to have a place in trade agreements can be traced back to the negotiation of the GATT and the significant influence that the neoclassical trade model – particularly its partial equilibrium, comparative statics version – had on the thinking of the negotiators of the time (Kerr, 2007a). In this model, producers are expected to ask for protection because it raises the prices they receive. Consumers are never expected to ask for protection because it is not in their interest – protection raises the prices they pay. Similarly, given the partial equilibrium nature of the model, there are only producers, consumers and government included in the model. Thus, there is no expectation that other groups in society not directly involved in the single market under consideration would wish to restrict market access in that market. Examples include environmentalists who worry about negative externalities arising from access granted to foreign products or individuals concerned about the influence of large multinational agribusiness firms in local markets. It should be remembered that one of the underlying assumptions of the neoclassical model is perfect knowledge (so there can be no unaccounted for externalities) and a competitive market structure is assumed. While the reason for these strict assumptions is understood by members of the economics profession, this understanding does not extend to members of the broader society.

While the neoclassical model was possibly at its apex of influence in policy making when the GATT was being negotiated – and when Frank Knight was writing – it still remains the dominant paradigm in economics. Once the neoclassical model was fully developed and all institutional and other constraints stripped-out, economists began to try and explain the divergence between what was observable in the *real world* and the artificial economy of the neoclassical model. There were two thrusts to these efforts – augmentation of the neoclassical model to rectify discrepancies and the development of alternative models (Perdikis and Kerr, 1998). Latterly, alternative industrial structures' implications for trade and the harnessing of game theory to the analysis of trade questions became important avenues for the endeavours of international trade economists. For the most part, the results of this work did not contradict the conclusion from the neoclassical model that unfettered trade maximizes welfare. When they did, their theoretical formulations could often be regarded as *special cases* without general application.<sup>4</sup> While all of these alternatives sparked interest and debate among trade economists, none of them had any discernable impact on society's conclusions regarding trade. Certainly, none had the lasting influence of the neoclassical paradigm. All one has to do is open any first year university economics textbook and see what is taught about trade.

The partial equilibrium, comparative statics configuration of the neoclassical trade model suggests that producers have an incentive to ask for protection and that granting it will be welfare decreasing. The GATT, hence, allows governments to respond to producers seeking protection. The agreement and subsequent rounds of negotiations put mutually agreed limits on the ability of governments to respond to those requests for protection – and thus reduce the welfare decreasing effects of the granting of protection. The GATT, and subsequently the WTO, deals almost exclusively with the interaction of producers seeking

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<sup>4</sup> For one example which contradicts the neoclassical conclusion but is not a special case see Gaisford and Hester, (2007).

protection and governments' ability to respond.<sup>5</sup> As consumers, and others in civil society, were not expected to ask for protection, no provisions were made to allow governments to respond to requests for protection from these sources (Perdikis and Kerr, 1999). Governments could not go to the WTO and justify the imposition of trade barriers based on requests from consumers (or others in civil society) for protection.

One of the first manifestations of consumer requests for protection arose in the EU and concerned beef produced using growth hormones. Concerns over human health effects of poorly regulated use of growth hormones in Italy evolved into a widespread consumer demand for removal of hormone treated beef from the EU market (Roberts, 1998). Given that hormones are routinely used in beef production in much of the world, including the US and Canada, removing beef produced using growth hormones from the EU market meant the imposition of an import ban. The EU, faced with no direct method of justifying its import ban, attempted to justify its action based on sanitary and phytosanitary (SPS) concerns (Kerr and Hobbs, 2002). The US and Canada brought a formal dispute to the WTO and won the case. The EU chose not to comply with the WTO Panel's ruling and, as is its right, chose to accept retaliation.<sup>6</sup> The US and Canada duly retaliated and the EU continued its ban (Kerr and Hobbs, 2005). The ban remains in place as of 2016.

On the environmental side the US, in response to intense lobbying, attempted to use import penalties to force other countries to improve fishing practices which had detrimental effects on marine mammals (Gordon et al., 2001). This resulted in two important disputes at the GATT/WTO. The first dealt with import restrictions on tuna caught in dolphin unfriendly ways (known as tuna-dolphin) while the second pertained to shrimp fishing methods that led to the unintended snaring of sea turtles (known as shrimp-turtle). Without going into details of the WTO Panels' rulings, the US lost the cases and had to change its legislation (Isaac et al., 2002). This led to considerable disillusionment with the WTO among environmental non-government organizations (NGOs) and the persistent feature of protestors dressed as dolphins and turtles at WTO meetings.

The most prominent manifestation of calls for protection from members of civil society has been over the issue of modern agricultural biotechnology (Kerr, 2014). Faced with calls for protection from consumers, environmentalists, those concerned with ethical aspects of the technology and those fearful of the influence of large multinational agribusiness firms (which develop and own the property rights to the technology) have over the food system, the EU and a number of other countries have either banned or heavily restricted the domestic use of agricultural biotechnology and imports produced using the technology. Other countries have gone ahead with widespread adoption of biotechnology. As with beef produced using growth hormones, absent of any direct avenue to deal with such requests for protection, import restrictions are justified on SPS grounds. Although there has yet to be a major dispute action brought at the WTO, research suggest that, at least for the EU, its domestic regulatory regime for trade in the products of biotechnology is not likely compliant with their WTO obligations (Viju et al., 2012). Frustrated with the WTO, the EU and other countries have championed an alternative set of rules and institution to govern international trade in genetically modified organisms (GMOs). The BioSafety Protocol (BSP) is, when compared to the WTO, extremely protectionist (Holtby et al., 2007; Hobbs et al., 2005). Thus, there are two sets of multilateral rules governing trade in GMOs, again a manifestation of the desire,

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<sup>5</sup> The exceptions in GATT Article XX do allow for governments too have other motivations for restricting trade but the use of these exceptions has been largely restricted through dispute rulings and negotiated clarifications (such as *chapeaus*).

<sup>6</sup> The acceptance of retaliation, however, is almost unprecedented and indicates the political difficulties requests for protection from consumers can mean for governments.

by some countries, to accommodate requests for protection from broader segments of civil society and not simply producers. The result is reduced trade in GMOs. The smaller market for GMOs means reduced investment in agricultural biotechnology and, hence, lower rates of technological advancement in agriculture – and ultimately making it more difficult to meet the challenge of feeding 9 billion people in 2050 (Smyth et al., 2011).

The requests for protection from groups in society other than producers has become widespread over issues such as animal welfare (Hobbs et al., 2002; Kerr, 2012), pesticide residues, drug residues, labour standards (Bakhshi and Kerr, 2010); food safety (Liu et al., 2009), swine fever (Kerr, 2009), environmental standards (Copeland, 2007) and a host of others. The existing set of trade rules have limited the ability of governments to respond, or at least provided an excuse for inaction, in the face of protectionist pressure. The pressure continues to be applied, however, making further liberalization of agri-food trade more difficult.

Over time, this rise in civil society concerns regarding the food product has evolved into considerable unease regarding the entire agri-food system. This is manifest in concerns regarding the industrialization of agriculture, environmental footprints, *unnatural* production practices, trustworthiness of various actors in food supply chains, authenticity, etc. The result is an increasing desire for *natural* production, local sourcing (from farmers *you can trust*) and traceability. This evolving interest in the agri-food system, along with the disruptions and price spikes of the recent *food crisis*, have led to a belief that self-sufficiency will guarantee food security on two facets; availability and safety. The arrival at this conclusion by members of civil society plays into the hands of the protectionist interests of producers as increasing the degree of self-sufficiency can be accomplished through the imposition of trade barriers (Kerr, 2011).

Of course, the correlating of food security with self-sufficiency is a fallacy and, in fact, if trade is inhibited, may exacerbate a deterioration in food security if trade links don't exist and trade infrastructure has not been put in place. This is because disruptions to local food production are common occurrences and cannot be easily prevented. Weather events such as droughts and floods are common. Man-made disruptions in food production are also common in some parts of the world due to war and civil conflicts. In developed countries, local food production disruptions are seldom noticed outside the affected farm communities because the supply chains of retailers are able to switch sources of products and a wide range of close substitutes is available in retail outlets. If the price of cauliflower spikes due to a crop failure, consumers can switch their purchases to broccoli or a range of other vegetables. Food security is threatened and famines arise when food cannot move to areas of local production shortages – local production failures lead to price increases which provide the incentive to ship product into the affected area. If those opportunities for arbitrage cannot be acted upon, and food does not move to where it is needed, then food security will deteriorate. Trade barriers mean the infrastructure needed to move food into affected areas may not exist. There is a considerable international argument going on currently regarding whether self-sufficiency or trade can enhance food security – with little research to inform the argument. Nakuja (2016) informs this debate. His work suggests that trade alone has not provided a high degree of food security in time of production shocks. Open trade combined with stockpiling, however, would seem to provide an alternative to policies that encourage self-sufficiency.

### **Trade and Food Security on the Road to 2050**

Currently, the international trade landscape for agricultural products can be summarised as follows. Traditional agricultural protectionist policies remain in place with agricultural protectionist vested interests in developed countries determined to protect asset values that have been enhanced by trade distorting

policies. These long running protectionist interests have been joined in recent years by those in developing countries that wish to follow the previous path taken by policy makers in developed countries to stem the exit of farmers from agriculture. In addition, new protectionists are now well established adding consumer, environmental and anti-globalization requests for protection to the deliberations of trade policy makers. Protection put in place for these alternative reasons, however, also provides the benefits of protection to agricultural producers. Thus, additional producer vested interests are created as a result of trade restrictions arising from the lobbying of new protectionists. Hence, the array of protectionist interests faced by politicians has considerably expanded since the launch of the Uruguay Round – the last major success in liberalizing agricultural trade – in 1986 (Kerr, 2004). This does not bode well for the future liberalization of agri-food trade.

The elephant in the room, however, is the combined projected growth in global population and the rise in income in some developing countries by 2050 – less than 35 years away. Projections suggest a rise in global population to over 9 billion over that period, or an extra 2.5 billion people (Evans, 2009). It should also be remembered that these projections were made prior to China loosening its policy of *one child per family* so that they are probably too conservative. Rising incomes in countries with large populations such as China, India, Indonesia, the Philippines, etc. will act to increase food demand. Most increased demand for food takes place as incomes move from US\$2.00/day to US\$10.00/day so it is not necessary for a move to even middle income levels to have significant impacts on food demand. Projections suggest that the combination of increasing population and rising incomes will lead to a doubling of food demand by 2050 (Godfray et al., 2010).

Most of the increase in food demand will arise in developing countries. Almost all of the projected increases in population will come from a rise in the number of urban residents, who will not be growing food. The expansion in population will not be the result of additional peasant farmers eking out a living on subsistence plots.

The expanding cities in developing countries will have to be fed from outside their urban conurbations. The central question is whether the hinterlands of these cities will be up to the task of feeding them. Much of the agriculture in the areas where the most rapid growth in food demand is expected is already being farmed in unsustainable ways. Large increases in output would further stress already stressed food producing environments – including water resources. Further, the projected disruptive effects of climate change are expected to fall more heavily on areas of the developing world that already suffer from poor resilience to shocks.

Increases in agricultural productivity are slowing (Alston, 2010) and some promising technologies have been curtailed by new protectionists (e.g. biotechnology)(Raney et al. 2014). Most of the investment in new technology across the world is targeted at agricultural production in developed countries. Little is being invested in technologies designed for conditions in developing countries. Further, in many cases the domestic infrastructure that could provide for a large increase in provisioning of cities from their hinterlands does not exist. Many of the expanding cities in the developing world are located on the sea and already largely provisioned by imports.

The bottom line is that if food security is to be enhanced, or even maintained, over the period to 2050, trade in foodstuffs will play a major role. While developing countries will be able to contribute to the required increase in output, developed countries with yet underutilized capacity will also have to be a major source. This extra output will have to be moved to the sources of increased demand – through trade.

If it is not, food security will deteriorate and the social/political stress that typically follows may well become major international issues.

Whether or not there is significant trade liberalization in agriculture over the next decades, agri-food trade will expand. Countries with rapidly expanding populations will have to import. For example, while India is currently pursuing a policy of self-sufficiency (Khorana et al, 2014), half of the projected increase in global population will be in India – it will simply have to import if it does not want to suffer a decline in food security.

Protectionism, whether traditional or new, raises prices for consumers, which tends, at least on the basis standard analysis, to be welfare decreasing. Such price increases are particularly detrimental for the food security of people in developing countries living on US\$1.00 or \$2.00 per day. This direct decrease in welfare is not, however, the only detrimental effect following from rising protectionism. Segmenting markets through trade barriers can reduce the size of markets that can be expected by those interested in investing in new technology. This is particularly true in the case of new protectionism. The willingness to invest is based, to a considerable degree, on the size of the market that can be expected for the innovative product or process. One obvious example where investment has been inhibited as a result of new protectionism is biotechnology (Smyth et al., 2011) but other examples likely exist for animal pharmaceuticals, chemicals and food preservation technologies, among others. Given that improving food security will require increases in agricultural productivity, trade policy makers will be faced with difficult choices; choices that may require confronting protectionists.

## **Conclusions**

In the vein attempt to stem the outflow of farmers from the agricultural sector, in most developed countries policy makers have used trade distorting policies. In turn, these policies have created benefits that have been capitalized into the value of relatively fixed assets. Any future trade liberalization threatens the value of those assets. Those that have vested interests in those assets can be expected to tenaciously defend existing trade distorting policies. Over the last two decades, these protectionists have been joined by policy makers in some developing countries that wish to follow the path chosen by developed countries in supporting their farmers, and hence chafe under the current internationally agreed restrictions on trade distorting policies in agriculture. They will resist any further liberalization. Further, new protectionists have joined traditional vested interests and are demanding protection for a large array of consumer, environmental and anti-globalization reasons. They have become formidable advocates for protection. Latterly, in the wake of the food price shocks in the first decade of the second millennium some of this new protectionism has coalesced around self-sufficiency as a solution to food security. Unfortunately, this is an incorrect conclusion. Shocks to food systems tend to be local, and cannot be overcome through attempts at self-sufficiency. If food cannot flow (in response to price signals) to where it is need, food security problems are exacerbated.

Given the expected growth in demand for food between now and 2050, and where that growth is expected to take place, trade in agri-food products must increase. The discussion regarding trade liberalization needs to be better informed. In the 65-odd years since Frank Knight claimed a victory for liberalization in the debate over trade policy, that claim can no longer be made. New protectionists have added arguments to the debate that question whether a liberal approach to agri-food trade is desirable – and those arguments appear to carry considerable weight among the broader society and policy makers. If one believes trade is one of the keys to future food security, strong arguments need to be formulated and communicated. Protectionist should never be underestimated; they have tended to *get the votes*.

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