WTO Implications of China’s Food Security Policy

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This commentary describes some of the agricultural policies adopted by China with focus on the pillars of internal support and export competition, and it briefly explains its policies in the field, which is of interest to research on China in order to have an overview of its agricultural measures, which have contributed to food security in the last thirty years. Such measures along with numerous poverty reduction programmes have made it possible for China to be the first nation to achieve the Millennium Development Goals of poverty reduction. However, it suggests that to maintain sustained food security, some of the programmes implemented recently will not contribute to long-term food security nor are they compatible with China’s WTO commitments under the Agreement on Agriculture (AoA). Even if such measures stay within the limits of the AoA, revision is necessary to meet national food security goals. Moreover, those policies have implications on the multilateral system and for other WTO members. China’s WTO accession has brought more food security overall, both to China and to the rest of the world. However, policies should be directed towards continuous work and reform to meet WTO and the multilateral trading system’s goals for greater food security.

1 FOOD SECURITY AND CHINA

Achieving food security is an important subject in national and international agendas, and the discussion concerns not only the need to

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* Law Professor, University of Costa Rica, Ph.D. Candidate World Trade Institute, Bern. I am thankful to World Trade Institute colleges for their suggestions and in particular to Prof. Dr Chai Yu from the Chinese Academy of Social Sciences (CASS). Any errors remain my own. The author can be contacted at carolina.palma@wti.org. China is a large and complex economy, which is why in the western world some academics are eager to learn more about it. This short commentary is based on the author’s experience after living in China for four years and studying its agricultural trade policies. However, it is a small contribution to policies that are in constant transformation within the Chinese legal framework, while the country goes through a process of regulatory evolution experienced after its entry to the WTO.
ensure food supply for a growing population, but is crucial for humanity to eliminate hunger and malnutrition and to meet the Millennium Development Goals of poverty reduction. It is alarming that malnutrition is estimated to be the cause of 30% of infant deaths, that approximately 850 million people are undernourished, and yet ‘globally there are more people overweight than there are underweight (...)’ which points out the challenge not only in food production but especially in food distribution and education. This is a challenge particularly (but not only) in Asia, because it has 65% of the world’s undernourishment during the period 2010–2012.

Certainly, China has made significant gains in poverty reduction, and it has successfully lifted 70.2 million people out of poverty in the last twenty years. Additionally it has achieved a steady decline in undernourishment and mortality rates, according to the food security index. However, it still has at least 158 million undernourished people. To tackle food insecurity, policy makers from different institutions are contributing to the discussion across three pillars: food production, food trade, and investment. Better public policies in each pillar -- production, trade, and investment -- contribute to better food security and are crucial in the battle against poverty. In this article, the trade aspect of the policy toolbox is examined as a first step for a future deeper analysis. Trade is particularly important because it allows for people to have better access to food, and it sets the rules by which countries make this food available for

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5. There are many food security indexes, like the FAO and The Economist and both support this fact, for more information see: http://foodsecurityindex.eiu.com/.
its populations or others. Moreover, trade also increases general welfare, including higher incomes and better jobs, increasing purchasing power. I will explore China’s general agricultural trade policies along with its food security situation and the implications for the multilateral trading system and on other WTO members. I intend to encourage additional research by exploring some of the standing issues in the field.

When looking at the definition of food security, ‘food security exists when all people, at all times, have physical, social and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.’ This definition includes the dimensions of availability, accessibility, utilization and stability (of those dimensions over time).

Regarding availability, it is a fact that over the last two decades, food supplies have grown faster than the population in developing regions, resulting in rising food availability per person. Availability means that food is available, but also that dietary needs are met. Average dietary energy supply adequacy – dietary energy supply as a percentage of the average dietary energy requirement – has risen by almost 10% over the last two decades in the developing regions as a whole. In addition, the relevant literature demonstrates that universal food availability is attainable. Although the world’s population will increase to 9.3 billion

by 2050, which will require an agricultural growth of 60%, taking into account the current reserve of arable land and its potential, the world can still produce enough to feed the increase in population. This does not mean however, that issues such as natural resource limitations and climate change should not be taken into account, because they affect projections, but it means that at least for the next twenty years other important factors should be taken into account.

The growth in China’s population, its increasing urbanization, and especially the enlargement of its middle class all raise food availability concerns. However, studies have shown that ‘the combined effects of population growth and income growth on aggregate consumption are not as alarming as they have been portrayed in public discussions.’\textsuperscript{14} In the case of grains for instance, according to the FAO, the growth of world per capita consumption of grains in the 1980s was only 1.7% a year, compared to the 3.1% a year in the 1960s; which means that despite Chinese’s economic growth during this period, the percentage of consumption was actually lower. The growth in the 1960s was only slightly higher than either in the 1950s and 1970s. The growth for the 1980s could have even been slower if real-world prices of food did not decline sharply between the early 1980s and 1990s. On top of that, with the rise in prices due to the economic crisis 2006–2007, overall studies have reported a slowdown in China’s economic growth (7.7% in 2013 down from earlier reports of 8.9%). These figures support that the proposition that in terms of food consumption in China ‘the worst is over – demand growth is slowing.’\textsuperscript{15}

\textsuperscript{13} Regarding food availability, Malthus predicted a gloomy panorama where food would had not been available for this generation. However, according to the FAO over the past 50 years the amount of food per person has actually increased. OECD, \textit{Global Food Security}, 32.


\textsuperscript{15} Ibid.
In the case of food access, the available statistics suggest that the problem of food security is more a problem of ‘accessibility’ rather than ‘availability.’ Accessibility has to do with household entitlements to food supply and economic access to food, based on food prices and purchasing power, which has fluctuated in recent years. This dimension is fundamental because it is a fact that when poverty rates decline, access to food correspondingly improves. In the light of the fact that poverty rates fell from 47% to 24% between 1990 and 2008 in the developing regions as a whole, access to food increased. Even so, food availability is a multi-dimension challenge, one in which addressing income inequality is one of the most important aspects, and it requires having the right strategies and policies in place. One among these strategies is to improve trade policies and have a level playing field that facilitates access to food. But this is certainly not the only solution. According to the OECD Food Security Report, ‘the key to improved access [to food] is higher incomes’ but also better trade rules and disciplines ensure that all countries are playing by the same rules and in this way countries can address food security concerns evenly.

Utilization of food is a dimension that includes that the amount of food is adequate but also that it supplies the dietary content necessary for a healthy life. This means that food is adequate and used properly. It also takes into account the concept of wasting, which is ‘the result of short-term inadequacy of food intake, an illness or an infection’ and stunting.

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16 Many authors have extensively done research in this sense, including: Amartya Sen, Development as Freedom (Oxford University Press, 1999).
17 In this sense, the entitlements approach from Sen that introduced the current theory in food distribution. Amartya Sen, The Idea of Justice (Harvard University Press, 2009).
18 FAO, The State of Food Insecurity in the World.
19 OECD, Global Food Security, 27.
'which is often caused by prolonged inadequacy of food intake, repeated episodes of infections and/or repeated episodes of acute undernutrition'. For the most part, stunting and underweight in children under seven years of age have declined in all regions since 1990. According to FAO ‘nutritional value, diversity of diets and availability of clean water’ are determinant for addressing some of the difficulties in the utilization of food, such as undernourishment in children, calorie consumption and number of adults underweight. Utilization concerns mostly health ministries, health organizations and agencies enforcing Sanitary and Phitosanitary (SPS) matters. Food utilization is certainly one of the most important issues for health ministries, especially since food safety in China has been the topic of international criticism and recurrent news in the last years. Moreover, the relationship between many who are overweight and food nutrition is an increasing concern for authorities. All of these concerns are beyond the scope of this analysis but they should certainly be taken into account when drafting a food security strategy.

The stability aspect of food security is affected by food crises such as crop failure, pest outbreaks, internal conflicts, price shocks, price volatility and others. From the perspective of stabilization, smallholder

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22 OECD, Global Food Security, 28.
25 Regarding price volatility the report states, ‘Projected higher prices are expected to encourage producers of crop and live stocks to increase area harvested and animal inventories; and to achieve higher productivity through further investments. With increased commodity supply expectations and rising stocks, the risks of high price volatility are expected to abate in the near term’. However, it notes that unforeseen production shortfalls or trade restricting measures in major producing and trading countries could quickly provoke price rebounds and higher volatility Organisation for Economic Co-operation and Development, OECD-FAO Agricultural Outlook.
farmers, pastoralists, and poor consumers remain particularly vulnerable, because they are more prone to suffer the consequences from those crises. The issue of price stability is also crucial for stakeholders to take into account. For instance, according to FAOSTAT, all commodity prices apart from wheat and rice will be higher than their average in the previous decade 2002-11 and when comparing it with the averages of 2009-2011 all crops show prices below the peak reached in 2011’. But when comparing livestock and crop prices ‘the projected real price increases over the coming decade are higher for livestock than for crops.’

This is because meat imports of developing countries are expected to increase and therefore the risks of high-price volatility are expected to abate in the near term, particularly in China where there is a rising middle class. To the reality of price volatility, FAO also proposes solutions. Among those and for the purpose of this article ‘deeper integration of global and regional markets, better defined safeguard mechanisms and improvements in the competitive environment to bring increased trade volume and more suppliers (...) Doha Development Agenda negotiations would be an important step (...) along with complimentary policies that improve supply capacity and ensure the benefits of open and competitive markets.’

This has proven to be true in China with the opening-up policies, and it is supported that international trade lowers domestic price volatility and very significantly in many cases. Furthermore, not to forget that price distortions have a direct effect on the market and on WTO commitments and distortions cause a negative effect on poor importing countries. Price volatility is an important element and according to the FAO the key is to work out the distribution of probabilities, to understand their interactions and choosing the right mix

26 OECD, Global Food Security, supra note 1 at 37. And OECD-FAO Agricultural Outlook, supra note 12.
28 OECD, Global Food Security, supra note 1 at 83.
29 OECD, Global Food Security, 83.
30 Kym Anderson and Alberto Valdés, Distortions to Agricultural Incentives in Latin America (World Bank Publications, 2008). And others.
of policy instruments that would, for example minimize the number of people affected by food insecurity.’ To achieve food stabilization, some global initiatives are concerned with risk management, such as the G20-supported platform on agricultural risk management (PARM) and many international insurance companies are now offering special coverage for agriculture, which is one of the main ways of ensuring that vulnerable populations are less affected by external circumstances.

Specifically in Asia, food stabilization is a key issue. For instance, the FAO states that in Asia:

enormous development problems and policy challenges await the developing countries of the region. Rising population, shrinking agricultural land, increasing demands on limited water resources from the expanding urban and industrial sector, widespread land degradation, and inadequacy of governance infrastructure appear to be more pressing now than ever before, especially as they mount efforts to recover lost grounds arising from the crisis and deepen their integration with the world economy. As recent experience suggests, these issues cannot be divorced from policy concerns impinging on poverty and food security.31

Particularly in China, where prices are rising fast, food stabilization and price volatility also become one of the key issues to address.

With this brief description of food security policy’s importance and given China’s global relevance, it is important to examine its agricultural policies and the implications and effects not only in the multilateral system but on other WTO members. In the next section, I turn specifically to consider agricultural measures in China influencing food security and where China’s trade policies stand in this field.

2 **Understanding China’s Agriculture**

China’s rise is evident in many aspects of its development, starting with it becoming the second-largest economy in the world and the first country to reach the poverty Millennium Development Goals. Moreover China has become the world’s second greatest exporter and third largest

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importer of goods (excluding intra-EU trade), which means that any measure taken by it inevitably affects other trading partners. Agriculture is not an exception to this growth, according to the FAO’s report ‘the engine of agricultural growth since the late 1970s has been mainly the combined effects of research investments and agricultural and institutional reforms. It also stresses that China has relaxed government restraints on the behavior of farm people and it has allowed markets to develop and grow in significance.\textsuperscript{32}

This is evident during the early period of reforms (1978–1984) when growth increased by 7.7\% and then by 4.1\% during the latter phases.\textsuperscript{33} In Southern China, investment in research and institutional reforms, specifically the introduction of the ‘household responsibility system,’\textsuperscript{34} contributed over 5 percentage points of the observed growth of crop production during the early-reform period (World Bank 1997). In Northern China, the household responsibility system contributed about 3.8 percentage points of the 7.6 annual growth of wheat during the same period. In addition, research indicates that investment in agriculture dates from mid 1960s, which is said to have improved the way farmers have responded to reforms, but it also shows that this support has declined since the 1980s (falling from 0.41\% to 0.39 in 1990 according to FAO 1998 citing Fan and Pardey 1997 and Evenson 1996),\textsuperscript{35} raising fundamental questions about food security.

In general, food security has been an important goal for Chinese’s governments, but with the world food crisis (2006–2007), China was not exempt from a negative impact, especially on the low-income households. According to China’s Trade Policy Review (TPR):

\begin{footnotesize}
\begin{itemize}
  \item \textsuperscript{32} FAO, \textit{Food Security Indicators}.
  \item \textsuperscript{34} For the definitions and characteristics of the household responsibility system as well as the different periods in Chinese development, refer to: Carolina Palma, Chai Yu, and Jianmin Yang, ‘Chinese Economic Development Zones,’ \textit{Universidad de Costa Rica IICE-25, Serie de Divulgación Económica} (Abril 2014), http://www.iice.ucr.ac.cr/serie_25.pdf.
  \item \textsuperscript{35} FAO, \textit{Poverty Alleviation and Food Security in Asia: Lessons and Challenges}.
\end{itemize}
\end{footnotesize}
food prices registered relatively slow increase in 2005 (by 2.9 percent) and 2006 (by 2.3 percent), before suddenly shooting up to an annual jump of 12.3 percent in 2007 (…) rural areas reported even bigger food price rise (11.7 percent in cities and 13.6 percent in the countryside).\(^{36}\) Also, the price of pork and poultry and their products rose by approximately 32 percent and that of eggs by 22 percent. Prices for cereals are set by the government and saw a steady, stable increase of 21 percent between 2006 and 2009, after controlling for inflation.\(^{37}\)

In response to the crisis, China increased investments in agriculture again by 27% in 2007, 38% in 2008, and another 20% this year. According to FAO, no other big country, except for India, has raised its agricultural budget to this extent.\(^{38}\)

To the world, China is a big player: In 2010, imports of agricultural goods into China were worth about USD 67 billion (about 5% of total imports of goods) and exports about USD 36 billion (about 2% of total exports of goods, and China is the biggest producer of several major agricultural products, including rice, cotton, wheat, and potatoes).

Agriculture in China stands as a significant part of its economy, and it is important to the world’s trading system and its stability. According to the TPR, in 2010, it contributed 10% to GDP and represented about 37% of all employment. However, productivity still remains below other sectors.

In terms of production, it reached 5,777 billion Yuan in 2010, with an average annual increase of over 12%. With vegetables being the main product (20% of the output value), followed by swine (16%), fowl (10%), rice (8%), and maize (5%). However, this increase comes from productivity but also from prices. Moreover, data on yields indicate that most of the increase in production has come from increased area harvested, as yields (in kg/ha) have not increased by the same amount.


\(^{38}\) The Financial Times Limited 2009.
Additionally, it is important to note that 200 million farms in China are small family farms with an average size of only 0.6 ha. The small size poses some challenges, for example, the amount of capital that can be provided to machinery and other labour saving investments, but it may also have advantages to it in the sense that then it could be easier for governmental plans to address their needs at a small scale. However, labour shortages and rising labour costs are becoming a constraint on production; which calls for specialization and government investment.

3 CONSIDERATIONS REGARDING CHINA’S TRADE POLICY REVIEW

Several key issues are implicated by China’s trade policies review of food security. The first one is transparency. According to the TPR, China has taken some small steps to improve transparency.\(^{39}\) However, the WTO Secretariat notes that many aspects of China’s trade and investment policy regime remain ‘complex and opaque,’ leaving scope for administrative discretion and corruption. Apparently, Chinese’s Achilles heel is still corruption, and this affects not only trade but also many other aspects in the battle towards poverty alleviation. In the 2011 Corruption Perception Index, China ranked 75th, with a score 3.6 out of 10, almost identical to its ranking in 2009.\(^{40}\)

Second, in the pillar of market access, tariffs vary significantly, and although China no longer operates tariff quotas for soybean oil, palm oil or rapeseed oil, it continues to operate seven tariff quotas covering 39 tariff lines for wheat, maize, rice, sugar, wool, and cotton. Having quotas may raise some long-term difficulties, because it is generally accepted that tariffs are more transparent, cost-saving methods of limiting import entry. Quotas can have complicated procedures, sometimes leading to corruption or problems in allocation, and they deny the state the import

\(^{39}\) World Trade Organization, Trade Policy Review – Report by the Secretariat CHINA. \(^{40}\) Ibid.

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duties as an income source. Moreover, quotas don’t respond to the market supply and demand mechanisms like tariffs do. Besides this, China applies export quotas to rice, maize, cotton, and tobacco, which are sold through state-owned enterprises.

The TPR found, with regard to domestic support that:

1. According to the notification to the WTO Committee on Agriculture, direct payments now cover almost the entire countryside, although local authorities have the responsibility to decide, which areas under their jurisdiction may receive payments, and the subsidy level may also vary from one locality to another. The total amount provided for under the direct payments programme was CNY 15.1 billion annually in the 2007–2010 period.

2. The Chinese Government also subsidizes insurance programmes at 20%–30% of the insurance policy.

3. China has several types of input subsidy, which work as a direct payment and have increased from CNY 12 billion to 71.6 billion in 2010. Fertilizers and machinery are subsidized as well at rates between 20% and 30% of sales price (CNY 15 billion in 2010 only for machinery).

4. Minimum purchase prices for rice and wheat are set each year by the National Development and Reform Commission. Although the prices have been rising each year, the purchase price for rice has usually been below the world market price. Sugar has a similar situation, and the State holds stockpiles in order to stabilize prices.

In general, China (and India) has been a country with significant increases in both Green and Amber Box. This graph illustrates the situation:

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41 For more information on this, see among others: T Josling et al., ‘Understanding International Trade in Agricultural Products: One Hundred Years of Contributions by Agricultural Economists’ (2010) 92:2 American Journal of Agricultural Economics 424.

42 However, it should be noted that state-owned enterprises are going through a process of transformation and this export quotas might experience changes in the near future.

43 World Trade Organization, Trade Policy Review – Report by the Secretariat CHINA.

44 Source: Ibid.
Table 1  
Producer Support Estimates (PSE) and Single Commodity Transfers (SCT)

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<thead>
<tr>
<th></th>
<th>2002</th>
<th>2006</th>
<th>2010</th>
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<tbody>
<tr>
<td><strong>Producer Support Estimates</strong></td>
<td>203,00</td>
<td>436,23</td>
<td>994,78</td>
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<tr>
<td>CNY million</td>
<td>121,357</td>
<td>205,310</td>
<td>609,209</td>
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<tr>
<td>Market Price Support</td>
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<tr>
<td>% of PSE in gross farm receipts</td>
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<tr>
<td><strong>Single Commodity Transfers</strong></td>
<td>8</td>
<td>12</td>
<td>17</td>
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<td>(CNY million)</td>
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<tr>
<td><strong>Wheat</strong></td>
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<tr>
<td>% of SCT in gross farm receipts</td>
<td>-19</td>
<td>34</td>
<td>28</td>
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<tr>
<td><strong>Rice</strong></td>
<td></td>
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<tr>
<td>% of SCT in gross farm receipts</td>
<td>12,98</td>
<td>-11,167</td>
<td>-14,026</td>
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<tr>
<td></td>
<td>0</td>
<td>-4</td>
<td>-3</td>
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<td>7</td>
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<tr>
<td><strong>Maize</strong></td>
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<tr>
<td>% of SCT in gross farm receipts</td>
<td>25,34</td>
<td>43,59</td>
<td>68,079</td>
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<tr>
<td></td>
<td>9</td>
<td>8</td>
<td>23</td>
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<td></td>
<td>25</td>
<td>26</td>
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<tr>
<td><strong>Soybean</strong></td>
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<tr>
<td>% of SCT in gross farm receipts</td>
<td>5,88</td>
<td>5,92</td>
<td>12,767</td>
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<td>5</td>
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<tr>
<td><strong>Cotton</strong></td>
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<tr>
<td>% of SCT in gross farm receipts</td>
<td>15,83</td>
<td>33,43</td>
<td>54,002</td>
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The Producer Price Estimate (PSE) shows support to producers has increased from 8% of gross farm receipts in 2002 to 17% in 2010. The total value of transfers increased from ¥65 billion in 2000 to ¥994.8 billion in 2010, as the value of production also increased during the same time. As shown in Table 1, the majority of all support is provided through market price support measures. The level of market price support increased substantially from 121.4 billion in 2002 to 609.2 billion in 2010. These measures include mainly tariffs, tariff rate quotas, state trading and minimum guaranteed prices.

In brief, it can be seen that support has increased significantly over in both the Green and Amber Box with Green Box support at CNY 593 billion in 2008, and Amber Box support at CNY 89 billion in 2010 and possibly more in 2014 (including de minimis and subtracting negative product-specific support). Here it is interesting to note that despite this, compromises have stayed below de minimis (8.5%) but yet this percentage, given the size of China, represents a large, distorting effect.45

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Moreover, measures directed toward more internal assistance have been said to tackle food insecurity, according to governmental policies. However, these measures could have consequences for farmer security, for instance when implementing price subsidies, real wages could be depressed thereby reducing the returns on their only major asset which is labour. Another difficulty is that by having subsidies, farmers are unaware of their true prospects and competitiveness as suggested by price fluctuations, and they have no knowledge of where the market leads them. This creates uncertainty and may lead to wrong decisions about their crops. Another downside is that on the government part, it might be dealt with by more direct payments to ensure their livelihoods; which means that one trade distorting policy is covered by another one. In the particular case of rice, studies have shown that ‘rice insulating measures can reduce the effectiveness of trade and in particular can weaken its ability to prevent shocks to the food system from adversely impacting poor consumers,’ which could also eventually be extended to productivity in other crops.

Another downside of support-led measures is that often they have been poorly designed, resulting in excessive leakages of programme benefits to unintended beneficiaries and bureaucratic, costly procedures. At the same time, there are claims, that growth has bypassed the poorest or that

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46 More recent data from 2014 has not been found at FAO and WTO, but given the declarations of China’s leaders, we do not foresee a change in support measures. See: ‘Food Security, Rural Environment Top China’s Policy Agenda in 2014,’ Reuters (Beijing, 19 Jan. 2014)
the growth is trickling down to them too slowly, and in China despite its success, there are still people living with less than a dollar a day.\textsuperscript{50}

Furthermore, in the field of export prohibitions, China lists products in the catalogues of products subject to export prohibitions, which are prohibited from being exported under normal trade, claiming China’s international obligations and domestic considerations regarding environmental and human health protection, and preservation of natural resources. China has released five batches of export prohibition catalogues since its accession to the WTO; the last took effect on 1 January 2009. The Secretariat reports ‘China maintained general export prohibitions on a total of 45 items at the HS 8-digit level in 2011 (no change since 2009).’\textsuperscript{51}

Export restrictions are problematic from a policy perspective because they alter the domestic market by reducing prices and therefore, affecting farmers who live out of these earnings on one side, on the other side, they may also have a negative effect on the world market by raising prices and producing possible shortages of food (by reducing the supply in the long-term).\textsuperscript{52} Finally, they discourage investment in products because producers are not able to export surpluses; meaning that this is not only a disincentive to trade but also to production. In the multilateral system, disciplines governing the use of export restrictions are weak, and this creates uncertainty in the world’s markets thus influencing the price and having an impact not only in national but global food security.\textsuperscript{53}


\textsuperscript{52} Anania, ‘Agricultural Export Restrictions and the WTO,’ \textit{supra note 43}.

\textsuperscript{53} More about impact in food security: Anderson, \textit{Trade Liberalization, Agriculture, and Poverty in Low-Income Countries, supra note 7}.
According to the FAO, China uses a broad range of measures that include tariff protection, minimum purchase prices for rice and wheat, government purchase and storage for these commodities, government temporary purchasing and stockpiling for some other commodities, input subsidies, and direct payments. In 2008, China increased export duties on major crops, such as wheat, barley, and rice. The government also increased minimum support prices for varieties of rice. Other agricultural input subsidies, such as on prices of fertilizers, have as well been introduced.\footnote{54}

In the field of investment, farmland in China is owned by the State or by collectives, and administered by the local authorities for the area. Under the Agriculture Law of 1993 and the Law on Land Contract in Rural areas of 2003, contracts for farming may be awarded to farm households. The length of contract is thirty years for arable land, thirty to fifty years for grassland ranges, thirty to seventy years for forestland ranges and possibly longer than seventy years for forestland ranges with special trees. Moreover, rights were given greater clarity by the Property Rights Law of 2007, which essentially provides similar rights to private ownership. Also, both men and women are entitled to this access; one of the great advances in China. However, land may not be sold or sublet and may not be used as collateral for loans, which is an impediment to investment and restructuring, and which leaves the farmer with nothing but labour. If the land is taken away they will have no means of subsistence, limiting market participation. In October 2008, the 17th Party Congress approved The Decision on Certain Issues Concerning the Advancement of Rural Reform and Development’, which signalled that land policy could change, with greater rights to holders to transfer, rent or trade land, and prevents loss of farmland to development. However, the TPR states that ‘as of end 2011, the Decision had not been translated into law and it remains to be seen if, and how, it may be implemented.’\footnote{55}

\footnote{54 AO GIEWS 2009 In: http://www.foodsecurityportal.org/china/resources.}
\footnote{55 World Trade Organization, Trade Policy Review – Report by the Secretariat CHINA.
such measures are enforced, they could have an impact on those 200 million households.

4 WTO IMPLICATIONS OF CHINA’S AGRICULTURAL POLICIES

Following China’s WTO accession, policy makers and researchers commented on the impact of trade liberalization on food security.\(^5^6\) The concern was whether Chinese policy makers would appreciate benefits flowing from trade liberalization, especially after the substantial commitments that it made when entering the WTO.\(^5^7\) This discussion has now shifted slightly to whether present food security policies are still contributing to Chinese food security under existing circumstances, with China being the second-largest economy in the world, which is a much different panorama than some decades ago. Its agricultural policies now have implications for the WTO for other WTO members.

Moreover, parallel to China’s WTO accession, it engaged actively in regional and bilateral free trade agreements (FTAs), such as with Pakistan, Chile, Jordan, Thailand, the Association of South-East Asian Nations (ASEAN), Hong Kong, Macau, New Zealand, Singapore, Peru, Costa Rica, Iceland and Switzerland.\(^5^8\) Yang and Chen find that agricultural trade between China and ASEAN is more complementary than competitive. China can be expected to export more labour concentrated agricultural products to ASEAN and import more land-intensive agricultural products from ASEAN (rubber and palm oil).\(^5^9\)


\(^5^7\) See Duncan, Jiang, Chang, Anderson. In: Chunlai Chen, Ron Duncan, and Australian National University (ANU), \textit{Agriculture and Food Security in China What Effect WTO Accession and Regional Trade Agreements?}. (Canberra: Asia Pacific Press, 2008) 2.


\(^5^9\) Chen, Duncan, and Australian National University (ANU), \textit{Agriculture and Food Security in China What Effect WTO Accession and Regional Trade Agreements?}
advantage fall and trade is affected. Given China’s size, such trading partners are now seeking preferences with China.\(^{60}\)

Regarding WTO implications, in the pillar of market access, the full liberalization of cotton and grain markets in China showed that it took the opportunity to develop healthy measures towards agricultural markets. In this pillar, China has made more efforts not only multilaterally but also at a regional level. Moreover, numbers show that China’s economic growth and trade liberalization has facilitated some domestic structural changes in agriculture. For instance, China’s agriculture slowly shifted from land-intensive sectors with less comparative advantage to labour-intensive sectors with more relative advantage.\(^{61}\)

Moreover, in its accession commitments, China made a number of agreements that have not been fully met yet. For instance, export subsidies cannot be introduced on agricultural products in the future and must phase out. On Amber Box policies, the accession protocol allows a \textit{de minimis} level of support equal to \textit{8.5\%} of agronomic gross value product. However, as seen before, even though within the \textit{de minimis} level, China has enlarged its Green and Amber Box support,\(^{62}\) with the Amber Box-support causing some long-term food security concerns not only within China, but for other WTO members.

In terms of internal policies the Chinese government needs to minimize administrative interventions in the agrarian sector that have been released in the name of ‘food security.’ Then, agricultural policy adjustments and investment should respond better to the potential export opportunities of products with comparative advantage.\(^{63}\) To replace the price protection and assist low-income farmers, studies show that more effective measures are needed to improve information, technical, and training to farmers,

\(^{60}\) Numerous FTA’s are under negotiation, see: http://fta.mofcom.gov.cn/english/fta_qianshu.shtml.

\(^{61}\) Chen, Duncan, and Australian National University (ANU), \textit{Agriculture and Food Security in China What Effect WTO Accession and Regional Trade Agreements?}


\(^{63}\) Chen, Duncan, and Australian National University (ANU), \textit{Agriculture and Food Security in China What Effect WTO Accession and Regional Trade Agreements?}
especially to help them with new technologies and to find employment opportunities in non-agricultural sectors. In the case of the ‘state grain reserve’ policy, the government controls a large volume of grain stocks. When there is a grain shortage, reserves are sold to put downwards pressure on prices. However, the supervision of state held stocks has been too bureaucratic. Moreover, studies have shown that managing the stockpile is expensive and is not effective in reducing the price. In general, WTO’s accession has proven to be beneficial to China’s agricultural sector but additional steps are necessary to improve transparency, information, quality, sanitary measures and other measures in order to benefit fully from opportunities. The following table exemplifies the timeframe and evolution of the Chinese support measures, mostly classified under the Green Box and with an enlarged Amber Box that nevertheless stays within WTO limits.

Table 2  Timeframe – China’s Agricultural Policy

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970–2000</td>
<td>China’s economic reform</td>
</tr>
<tr>
<td>2001</td>
<td>China’s accession to WTO</td>
</tr>
<tr>
<td>2000–2004</td>
<td>Foundation for China’s agricultural support when WTO accession was affecting its economic policy</td>
</tr>
<tr>
<td>2004</td>
<td>Agricultural tax was eliminated and three small subsidies were introduced</td>
</tr>
<tr>
<td>2005</td>
<td>China’s tariff reductions for industrial and agricultural goods is completed for the most part</td>
</tr>
<tr>
<td>2004–2006</td>
<td>Direct payment for grain producers, machinery subsidy, transfer payments to grain, price floors for wheat and rice (price support)</td>
</tr>
<tr>
<td>2007</td>
<td>Further seed subsidies (cotton, rapeseed), pork subsidy</td>
</tr>
<tr>
<td>2008</td>
<td>Price supports rising affecting soybeans, rice, wheat, corn and rapeseed</td>
</tr>
<tr>
<td>2009</td>
<td>Price intervention programme (pork)</td>
</tr>
<tr>
<td>2011</td>
<td>Cotton price support, grassland protection (cattle and sheep)</td>
</tr>
</tbody>
</table>

64 Ibid.
China’s Ministry of Finance reported budgeted spending for agricultural production rose to $75 billion, equal to $127 per metric ton of grain produced. Latest China’s Trade Policy Review.

Release of China’s Trade Policy Review. Remains for the most part unchanged in the field of agricultural support (document is still under embargo).

However, most scholars have raised the point that when China adopts crop-specific subsidy payments, it will reflect on the total subsidy input and therefore China will be closer to exceeding WTO limits. This issue will not be addressed at this time because the general recommendation on China’s policy is to carefully plan its agricultural programme to seek more food security as opposed to continuing market distortion mechanisms in the supposed name of food security. Regarding the impact of China’s WTO accession commitments China is increasing its imports of many land-intensive agricultural commodities (e.g., oilseed, feed, sugar, cotton) and also some labour-intensive products (e.g., tropical and subtropical fruits, processed foods, some parts of pig and poultry), which provides opportunities for many developing countries in South and Central America and some advanced countries (e.g., United States, Canada and Australia) to expand their production and exports. FAO statistics show that the exports of agrarian and food products from South and Central America to China will be more than doubled, from USD 3.9 billion in 2001 to USD 8.5 billion in 2020. The North American Free Trade Area (NAFTA) countries can also gain substantially from rising Chinese imports of oilseed and feed. China’s imports from NAFTA countries will rise from USD 4.7 billion in 2001 to USD 9.6 billion in 2020. Due to trade liberalization, rising exports of several agricultural commodities in which China has a comparative advantage will challenge countries that are exporting the same commodities to the world markets.

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68 Ibid.
However, according to economic models, as China’s economy grows, demand for rice, wheat and other cereal foods will not increase or even fall after 2010, meaning that it will most likely not affect world food security (in terms of world’s food availability).^69^

5 **GENERAL COMMENTS**

The case of China suggests that it is possible to increase food security in the short and long-term, beginning with Deng Xiaoping in 1978 who introduced market incentives and individual household land contract into the nation’s farming sector, which gave families control and security over their labour and land and following with commitments made by China after WTO’s accession. Also, in subsequent years, the government made substantial investments in rural infrastructure and in agricultural research, crucial for its development. Two decades afterwards, China’s grain output went from 65% (305 million tons) to 500 million tons in 1999. The Chinese at the time saw their incomes rise impressively. The net income per capita in rural places increased from CNY 134 (1978) to CNY 2,210 (1999) and as a result, the number of people in poverty fell from 250 million (1978) to 34 million (1999).^70^ Chinese leaders provided access to a system of market based exchange, public investment, infrastructure, and property security and therefore, allowed for people to get out of poverty. This may well be the greatest contribution to food security in the last few decades, a trend still improving with measures taken by China at the WTO.

However, after an amount of economic growth has been reached, many standing questions remain that need to be addressed by policymakers. Some of the recommendations include the need for higher levels of transparency, the need for deep changes in the financial market and

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^69^ Ibid.

addressing unbalanced agricultural policies throughout the pillars of market access, internal support and export competition. Some policies are on the right track but others need a more substantial revision because they might not contribute effectively to food security, but would only deal with the short-term household necessity and might even constitute obstacles in the long-term. Other challenges include various fields such as food and water safety, and price stability that are beyond the scope of this analysis but that have been identified as areas of future work.

In terms of overall policies, some effective answers rest in improved efficiency in production and post-harvest operations, because expansion of cultivable area is no longer an option not just because of population increases, but also because the land condition is inadequate for cultivation and lack of irrigation. Technology development is the best strategy for generating export surpluses, along with greater transparency, research and coherence in policymaking.\textsuperscript{71} This is true not only in China, but in China there is still room for better introduction of technology. As the FAO summarizes in its report ‘in the effort to raise agricultural productivity, it should involve reforming incentives in agriculture (and the rest of the economy), allowing markets to function efficiently, and promoting institutional arrangements conducive to long-term growth and rural development.’\textsuperscript{72}

Sustained agricultural productivity growth is the key to maintaining food security in China into the next millennium. This along with reform of internal trade and investment policies that would allow for it to happen smoothly and steadily, and in a coherent manner, all pillars of its agriculture for the long-term. It is a big challenge, but China’s record – what it has achieved in the last thirty years – suggest that the correct revision and implementation of TPR’s recommendations, along with the

\textsuperscript{71} More on this subject in: Klaus Deininger and Vera Songwe, ‘Foreign Investment in Agricultural Production: Opportunities and Challenges’ (2009), online https://openknowledge.worldbank.org/handle/10986/9501.

\textsuperscript{72} FAO, Poverty Alleviation and Food Security in Asia: Lessons and Challenges.
impact assessments that characterize Chinese’s policymaking in its Five-Year Plans will lead to better food security.

In terms of implications for other WTO members, China’s growth is expected to provide more opportunities than challenges to the rest of the world. Overall the rest of the world is gaining and will gain from China’s economic expansion, though this depends on the success of other countries in adapting to the new reality. China is set to play an increasing role in international trade, which should benefit both developed and developing countries. However, challenges remain ahead; the role of the WTO and China’s commitments, reflected in the TPR recommendations, and its success in moving away from further subsidization, but respecting and following WTO’s development and levelling-field goals, can lead to success.

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