

LEVERAGING CHINA'S EMERGENCE FOR VIETNAM'S ECONOMIC GROWTH

OPPORTUNITIES AND CHALLENGES FOR AGRICULTURE

INTRODUCTION

China's economic emergence will have profound implications for the East Asian regional economy, providing new opportunities but posing new challenges for its neighbors. Similarly, economic growth in China will bring opportunities and challenges for Vietnam, and more specifically Vietnam's agricultural sector. China's growing urban population and expanding food consumption will mean higher levels of agricultural imports, particularly over the longer term. Alternatively, more efficient and higher quality food production in China could pose a competitive threat to Vietnamese farmers and agri-businesses, both in third-country markets and in Vietnam.

For Vietnamese policymakers, exploiting the opportunities and addressing the challenges presented by China's economic emergence will require effective policies that are grounded in an enhanced understanding of food production and consumption in China, as well as longer-term projections of China's food supply and demand.

This report analyzes the implications of China's economic growth for Vietnam's agricultural sector. Projections detailed below indicate that China could become the world's largest food importer by 2010 and would extend this lead over the next decade. Particularly in land-intensive crops such as cereals and meat, this surge in imports will translate into new markets for the world's agricultural exporting countries. Given its proximity to China, with appropriate investment and

institutional reforms Vietnamese policymakers could strategically position Vietnam as a major exporter of agricultural products to China.

In the nearer term, improved production and marketing in Chinese agriculture will continue to increase competitive pressures on East Asian agricultural exporters. In Vietnam these pressures are tied to regional climatic zones: Whereas more tropical southern Vietnam shares agroecological complementarities, China is a competitor for more temperate northern Vietnam's agricultural sector. In considering the implications of China's economic growth on Vietnam's agricultural sector, priorities and strategies for these regions will be different.

More broadly, the challenge for Vietnamese policymakers, and policymakers throughout East Asia, will be to find ways to balance the longer-term opportunities and nearer-term challenges of China's transition from an export-driven to a consumer-driven economy.

TRADE IN AGRICULTURAL PRODUCTS BETWEEN VIETNAM AND CHINA

Trade between China and Viet Nam resumed officially in 1991 after nearly a decade of severed diplomatic ties, leaping five fold from US\$53 million to US\$2.96 billion between 1991 and 2000 (Ninh, 2004). Two-way trade has exceeded official prospects, reaching US\$5 billion a year ahead of expectations in 2004, and is expected to reach US\$10 billion by 2010. In a short span of 10 years, China moved from an economically unimportant neighbor to one of Viet Nam's three largest trading partners (IMF, 2003). Similarly, Viet Nam has become an important trading partner for the bordering Chinese provinces of Yunnan (Van Nam) and Guangxi (Quang Tay), though nationally trade with Viet Nam comprised less than one percent of China's total trade in 2002 (IMF, 2003). (See Table 1).

Table 1: Vietnam's Trade with China, Yunnan, and Guangxi, 2002

Region	Trade with Viet Nam	Total Trade	% Total
Yunnan	\$162,660,000	\$2,226,350,000	7%
Guangxi	\$486,070,000	\$2,430,900,461	20%
China	\$3,265,000,000	\$621,151,000,000	0.5%

Sources: Yunnan data are from YSB (2003); Guangxi data are from GSB (2003); China national data are from IMF (2003).

Historical Trade in Agricultural Products

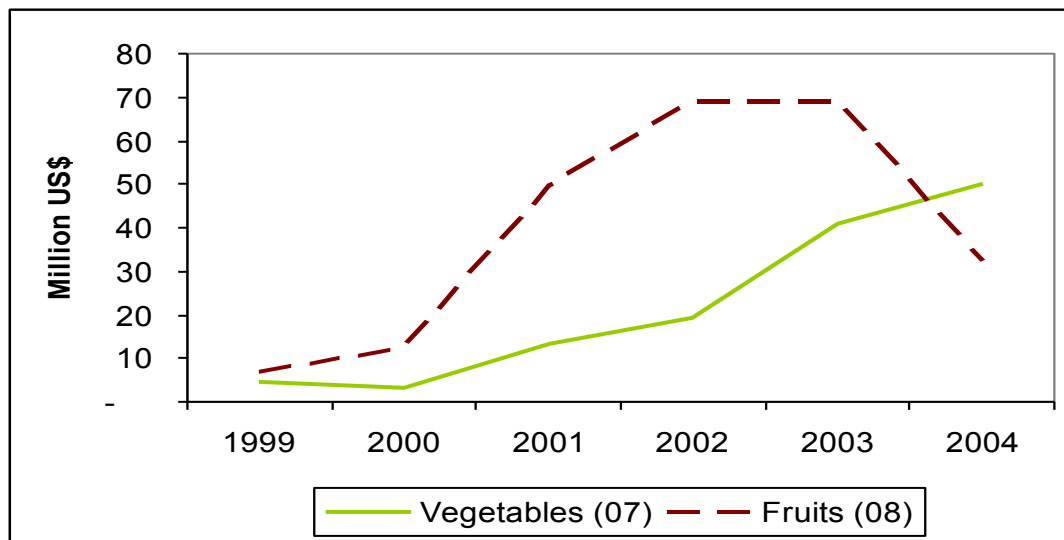
A significant portion of Vietnam's more recent exports to China have comprised crude oil, reaching 56 percent by value in 2003; in the same year, five product categories accounted for 74 percent of Vietnam's total exports to China. (See Table 2). Historically, although China has been an important export market for Vietnamese fruits, crude rubber, and cashews, the scale and diversity of Vietnam's agricultural exports to China have remained relatively limited given the two countries' proximity and China's growing agricultural imports.

Table 2: China's Five Primary Imports from Vietnam, 2003

Commodity	Value	%Total Exports
Oil, oil products, and related raw materials	\$819,000,000	56%
Vegetables and fruits	\$110,590,000	8%
Unprocessed rubber	\$104,280,000	7%
Processed rubber products	\$57,440,000	4%
Coal, coke, and coal briquettes	\$53,750,000	3%

Source: Ministry of Commerce website, www.mofcom.gov.cn (August 2004) [Chinese]. All figures are in US\$.

Figure 1: China's Fruit and Vegetable Imports from Vietnam, 1999-2004



Source: UN Comtrade, online at: <http://unstats.un.org/unsd/comtrade/>.

Figure 1 illustrates the contrasting fortunes of Vietnam's fruit and vegetable exports to China since 1999, but disaggregating these categories provides a more telling picture. Much of the rise in Vietnam's vegetable exports to China has been the result of a surge in cassava exports, which accounted for 99 percent of 'vegetable' exports in 2004. Similarly, the plunge in Vietnam's 'fruit' exports to China was the result of a precipitous decline in litchi and longan exports, accounting for 64 percent (US\$23.6 million) of a total fall of US\$37.0 million from 2003 to 2004. By some accounts, China already has a growing glut in litchi

production, with prices falling from US\$4 to \$7 per pound in the 1980s to as little as \$0.12 in 2004 as farmers flooded the market (Bradsher, 2004).

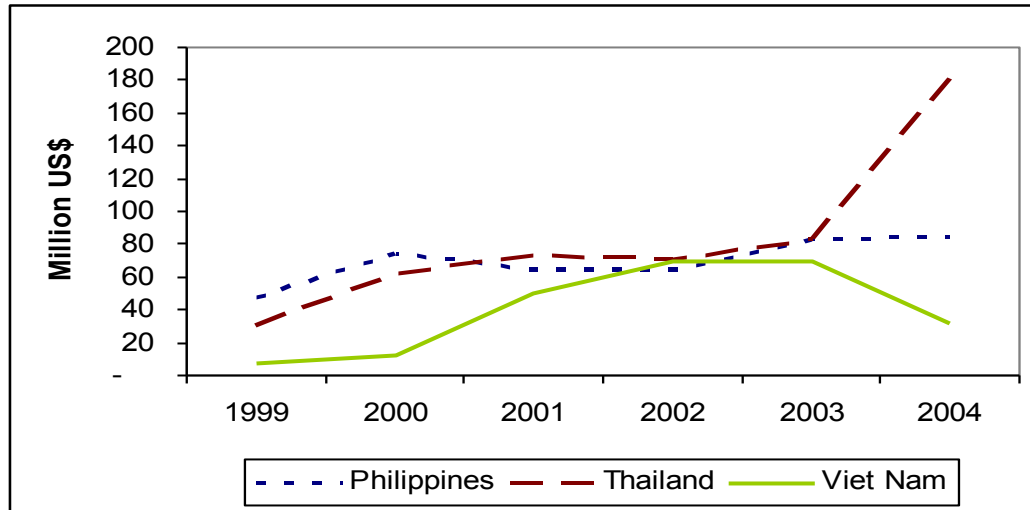
Crude and processed rubber, fruits and vegetables, animal and vegetable oils, cashews, and coffee comprise the bulk of Vietnam's agricultural product exports to China. Seafood and forest products, while significant, will be of lesser focus here. With the exception of processed rubber, coffee, and some dried fruit, most of Vietnam's agricultural exports to China have historically consisted of primary products. Capturing more value in the Chinese market should be a priority for Vietnamese agri-businesses, but will require enterprise reforms, more effective export promotion and services, and reforms in agriculture.

Volume and price volatility has been an enduring feature of Vietnam's agricultural trade with China. In addition to the cases of litchi and longan, mentioned above, Vietnam has seen exports of a range of products to China, such as rice, spike and plummet as supply and demand in China rise and fall, and as Chinese traders seek arbitrage opportunities in international markets to underbid domestic prices. This instability has been characteristic across China's agricultural imports, and is not only a feature of China's trade with Vietnam (Gale et al., 2002). In addition to concerns over volatility in trade volumes, price collusion by Chinese traders — where Vietnamese traders are forced to sell under cost — is also a major concern in Vietnam (Linh and Hanh, 1999). Trade reforms may help to stabilize markets and bring greater transparency to markets, but by and large both countries still lack intermediary institutions to manage commodity price risk.

Among Southeast Asian countries, the Philippines and Thailand are Vietnam's chief direct competitors in the Chinese market for food products. (*See Figure 2 for a comparison of China's fruit imports from each*). Thailand, in particular, presents a strong competitive challenge for Vietnam via cheaper and higher

quality agricultural goods; FOB prices for Vietnamese rice are reportedly twice as high as rice grown in Thailand (Bui, 2003).

Figure 2: China's Fruit Imports from the Philippines, Thailand, and Vietnam, 1999-2004



Source: UN Comtrade, online at: <http://unstats.un.org/unsd/comtrade/>.

Trade in agricultural products between Vietnam and China is more bidirectional than commonly thought. Particularly in the wake of WTO entry, China's national and local governments have encouraged agricultural exports to Southeast Asia, now one of China's largest markets for these products (Liu et al., 2004). To some extent, Vietnam's food imports from China are complementary; during the summer season in northern Vietnam tomatoes and cabbage from China fill shortages in domestic production (An et al., 2003). In the aggregate, Vietnam currently imports agricultural products from China in significant volumes. Through border gates in Guangxi province, for instance, by value China exported 1.3 times more in fruit, 23 times more in medicinal products, 83 times more in grain, and hundreds of times more in vegetables to Vietnam than vice versa in 2003 (GSB, 2004). (See Table 3).

Table 3: Border Trade between Guangxi and Vietnam, 2003

Export Item / Viet Nam	Value (US\$)	% Total	Export Item / China	Value (US\$)	% Total
Seafood	\$51,996,522	19%	Cloth	\$61,978,261	13
Fruits	\$37,167,874	14%	Fruits	\$47,152,174	10
Rubber	\$32,961,353	12%	Medicinal Plants	\$34,398,551	7
Coal	\$17,583,333	7%	Vegetables	\$24,206,522	5
Timber	\$1,677,536	1%	Textiles	\$23,153,382	5

Source: GSB (2003).

Multilateral and Regional Trade Agreements

China's entry into the World Trade Organization (WTO) in December 2001 marked a watershed event for East Asian intra-regional trade. China's WTO membership implies both procedural and operational changes for agricultural exporters; for instance, China now requires certificate of origin documentation on fruit and vegetable imports (RIFAV, 2003). In terms of more fundamental structural changes in agriculture, however, regional trade initiatives will likely have a greater nearer-term effect on intra-regional trade patterns than multilateral commitments.

In 2001, Association of Southeast Asian Nations (ASEAN) countries reached an agreement with China for the latter's inclusion in an ASEAN-China Free Trade Area (AFTA). China began negotiating tariff reductions in January 2004 as part of a China-AFTA-linked "Early Harvest Program" (EHP). The EHP will require member countries to reduce and eliminate tariffs on less sensitive goods, including most of harmonized system (HS) chapters one through eight (i.e., primary agricultural goods), from 2004 to 2007. Under the EHP, Viet Nam has agreed to remove tariffs on almost 500 products; China will eliminate them on more than 500 products.

Because of the tremendous scale of cross-border smuggling between Vietnam and China, more precise short-term implications of tariff reductions across agricultural product categories are difficult to gauge. Lower tariffs will likely

mitigate the scale of smuggling by reducing its margins, but given uncertainties about current volumes and arrangements for agricultural goods crossing the border actual market responses could be dramatically different than projections. Over the long term, as described in scenarios below, rising domestic demand for food in China will overtake shorter-term variations in bilateral exports and imports.

In the near term, greater agricultural trade with China will serve to exacerbate existing regional and local production discrepancies in Vietnam. For instance, of Vietnam's major fruit and vegetable exports to China — litchi, longan, dragon fruit, watermelon, banana, mango, cassava, and cashew — the majority are produced in the Red River Delta, Central Highlands, Southeast, and Southwest Regions. In these areas, standardizing quality and improving marketing are primary concerns. In more temperate regions outside of the Red River Delta, where producers will likely not be able to compete with similar Chinese goods on price or quality alone, the four “partners” —farmers, managers, traders and scientists — may have to devise entirely new agricultural sector strategies to deal with rising food imports from China.

The beginnings of bilateral trade liberalization have been accompanied by a flurry of transboundary road infrastructure projects that are themselves tied to growing regional identities in China. To Vietnam's northwest, Yunnan Province is part of a southwest region that includes rapidly industrializing Sichuan Province and Chongqing Municipality. Components of an Asian Development Bank (ADB) and Government of China-funded multimodal corridor linking Kunming to Hanoi and Haiphong are slated for completion in 2007. To Vietnam's northeast, Guangxi Province, perched at the southern tip of China's eastern seaboard, is connected to manufacturing centers in southeastern Guangdong and eastern Zhejiang Provinces. An ADB and Government of China-funded 180 kilometer highway linking Hanoi with Guangxi's capital Nanning is scheduled to be completed in

early 2006. That a significant portion of this road building has been financed by the Chinese government may embody concerns that China is more prepared for trade liberalization than Vietnam, but trade costs for both countries will fall with improved transport links.

CHANGING FOOD PRODUCTION AND CONSUMPTION IN CHINA

China is currently in the midst of three far-reaching transitions in food production and consumption. First, farmers in post-WTO China are beginning to move away from land-intensive cereals and toward specialty crops. Second, as incomes rise, diets in China are shifting toward greater consumption of meat and other “luxury” foods. Third, China’s cities are undergoing a revolution in consumer tastes and preferences, with the rapid emergence of supermarkets and parallel implications for agricultural supply chains.

China is one of the world’s most land scarce countries on a per capita basis, with only 0.10 ha of arable land per person (NBS, 2004). Even in the late 1990s, land-intensive grain crops comprised more than 70 percent of China’s total planted area. With WTO entry and accompanying tariff reductions in 1999, a shift toward non-cereal crops occurred in nearly every province in China, with an 8 percent decline in grain planted area nationally and as high as 54 percent declines provincially (in Beijing) from 2000 to 2003 (NBS, 2004). More labor-intensive crops, such as apples and melons, have emerged to take the place of cereals.

Economists have long recognized that, as their incomes rise, consumers spend a larger share of their income on foods such as meats, with a declining share going to subsistence foods. The former foods are usually more expensive because they are more resource intensive. Meat, for example, is a resource-intensive source of protein because one gram of digestible meat protein requires an average of twenty grams of vegetable protein (feed) to produce it. Although China is expected to undergo a relative shift from pork to poultry production to reduce

feed costs, because of land scarcity China will likely have to import either feedstuffs, meats, or both to keep up with increased demand (Fuller et al., 2002).

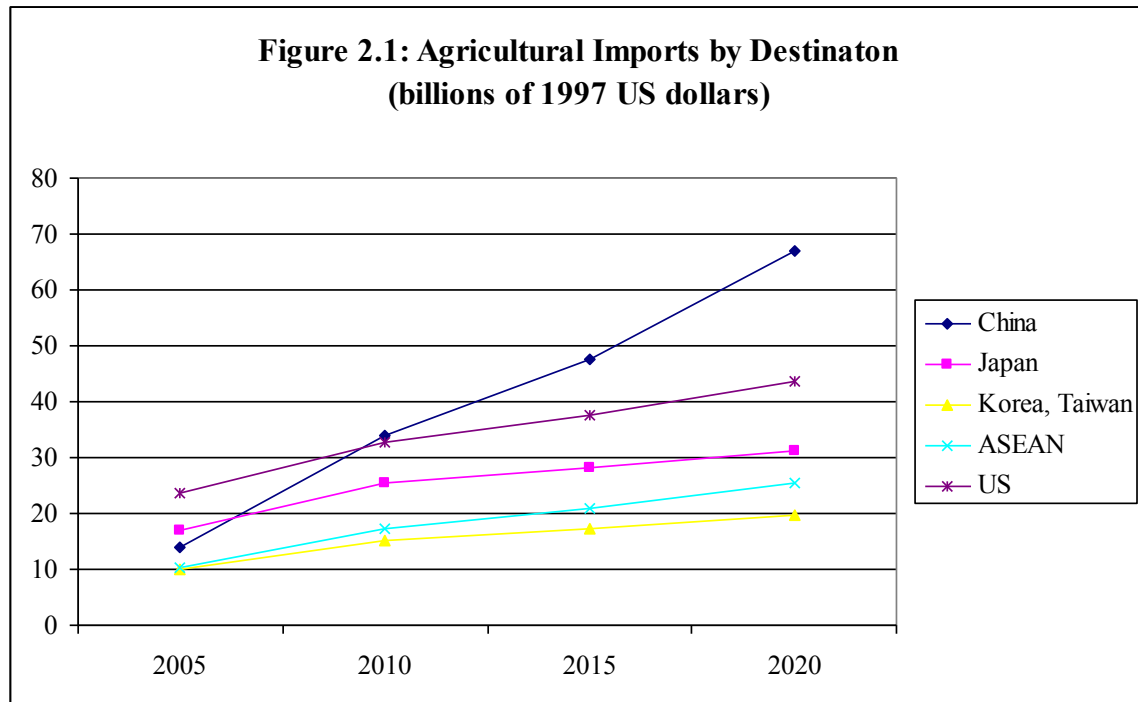
The growth of supermarkets in China, beginning in the early 1990s, has occurred at two to three times the pace as that in other developing countries (Hu et al., 2004). In China the swift emergence of supermarkets has shown characteristics associated with their appearance elsewhere: sharp growth in household refrigerator use, decreasing reliance on open-air markets, and increasing use of contract farming. The extent of these changes has been palpable in Vietnam as well; as one Vietnamese industry expert notes for fruit exports, “For many years Vietnamese businesspeople thought China was an easy market, but in reality Chinese consumer preferences are changing rapidly, particularly in cities” (ICARD, 2004). In short, China’s small but growing middle class is increasingly demanding higher quality, standardized food products

In addition to urban-driven consumption, China’s rural majority is also changing its food consumption habits. Whereas traditionally China’s farmers grew most of their own food, over the past decade rural residents’ food purchases have grown faster than incomes. This shift is underpinned by China’s expanding rural cash economy and farmers’ greater consumption of non-staple foods (Gale et al., 2005). As in urban areas, higher levels of food purchasing in the countryside are providing space for innovations in rural marketing and distribution of food products.

MODELLING CHINESE GROWTH AND AGRICULTURAL IMPORTS

The latter half of this report uses a computable general equilibrium (CGE) model to develop a baseline projection for Vietnamese and Chinese agricultural trade and economic growth. As the Vietnamese CGE model is a single country model, it cannot be used to forecast growth of another economy. Here we use a multi-country economy to set the baseline projections for China, East Asia, and beyond, and in the next section apply the Vietnam CGE to evaluate alternative policy responses to the baseline.

Based on economic growth projections, China could become the world's largest food importer by 2010, and would widen this lead in the following decade. (See *Figure 2.1*).



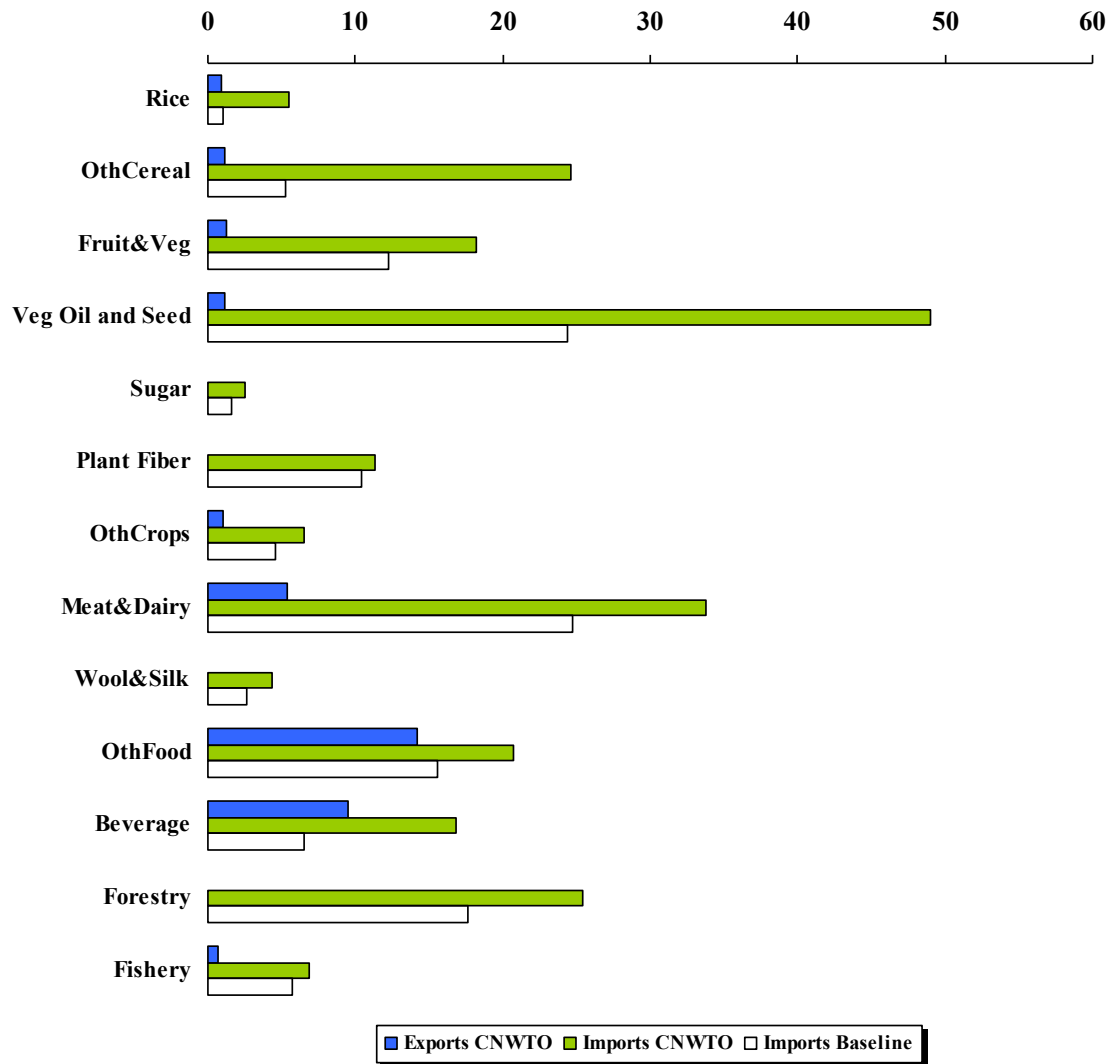
Source: Authors' estimates.

Even if its population remained constant, China's projected income growth could lead to increases in food demand that would require doubling its current agricultural capacity. In a resource constrained country where agricultural land is increasingly competing with other land uses, meeting rising demand would require significant improvements in China's agricultural productivity. Debates about China's ability to maintain self-sufficiency in cereals aside, even small increases in China's per capita food imports would translate into non-trivial opportunities for agricultural exporting countries.

Although China is set to remain on course as a paragon of export competitiveness in labor-intensive and even higher value-added manufactured goods, projections for this study indicate China will experience sharply rising trade imbalances in a broad spectrum of agricultural products. As illustrated in Figure 2.2, China will become particularly import dependent in resource-intensive products, such as cereals, oil seeds, meat and dairy, and forest products. China's WTO accession sharply increases import dependence in some cases, but the primary driver in most sectors is baseline economic growth (the white bar).

Agricultural import dependence has important implications for China's growth process, since food will be implicitly bartered for manufactured goods, reducing China's external savings accumulation and long-term rates of domestic capital formation. This scenario might not be seen as ideal by some China observers, but exactly this process has characterized each of the most dynamic East Asian economies in the long run. In those cases, growth in aggregate income has generated more than enough to offset reduced domestic saving.

Figure 2.2: Chinese Agricultural Trade
(USD 1997 billions in 2020)



SIMULATIONS OF ALTERNATIVE VIETNAMESE POLICY RESPONSES

As it transitions toward a consumer-driven economy, China will present new opportunities for Vietnam's agricultural sector. Whether Vietnamese farmers and agri-businesses can exploit these opportunities will depend, in part, on an improved enabling environment for agriculture in Vietnam that includes substantial public and private investments in infrastructure, research, and service support. As the below simulations show, while increased exports to China alone will translate into higher economic growth for Vietnam, productivity gains will ultimately be the most important factor in Vietnam's agricultural sector development.

Table 3.1 (page 16) presents baseline projections for Vietnamese trade and detailed aggregate import and export projections for China after WTO accession. These trade patterns reveal that China's export competitiveness will remain strong in manufactured goods, and this strength will pose challenges for Vietnam's shift to an industrialized economy. In food and agriculture, however, China will become a net importer in a number of product categories (C01-C24 in Table 3.1). With greater productivity and higher quality in its agricultural sector, Vietnam could gain substantially larger shares in many of these categories.

Table 3.2 (page 17) estimates the share of China's higher agricultural import levels captured by ASEAN countries, as well as Vietnam's share among ASEAN countries and vis-à-vis China's total agricultural imports. Based on these assessments, Vietnam has significant export potential in rice, coffee, livestock, forest products, fruits and vegetables, seafood, and feedstuffs.

Table 3.1: Forecast Trade Patterns for Vietnam and China, 2020
(billions of 2000 Vietnam Dong)

	Vietnam 2020 Baseline			China 2020 (CNWTO)		
	Exports	Imports	Net	Exports	Imports	Net
C01Rice	10,138	195	9,942	12,745	79,395	-66,649
C02RawRub	2,275	285	1,991	16,655	356,252	-339,597
C03CoffTea	7,393	16	7,377	6,771	41,633	-34,861
C04SugCane	0	0	0	16,017	710,494	-694,477
C05OthCrp	9,555	3,409	6,146	9,842	281,929	-272,087
C06Pig	4	9	-5	171	1,080	-908
C07Cattle	12	0	12	518	3,264	-2,746
C08Poultry	2	17	-16	66	412	-347
C09OtLvstk	192	9	183	8,298	52,253	-43,954
C10IrrServ	0	0	0	0	0	0
C11OtAgSrv	0	0	0	0	0	0
C12Forest	717	1,181	-465	603	368,994	-368,392
C13Fish	5,210	75	5,136	9,604	99,295	-89,691
C14Energy	53,888	31,093	22,795	90,483	499,077	-408,593
C15Mining	359	2,015	-1,657	602	3,321	-2,719
C16Meat	467	293	173	20,166	126,982	-106,816
C17Dairy	1,121	2,062	-941	48,438	305,004	-256,566
C18FrtVeg	492	91	400	17,915	264,289	-246,374
C19Sugar	608	6	602	2,079	36,352	-34,273
C20CofTBv	537	45	492	92,695	164,614	-71,919
C21OtBvTob	258	1,984	-1,726	44,512	79,047	-34,535
C22SeaFood	18,714	472	18,243	180,432	263,818	-83,386
C23Feed	23	824	-801	224	327	-103
C24OthPrFd	2,631	3,410	-779	25,369	37,093	-11,724
C25BldgMat	7,328	2,712	4,616	3,666,065	2,876,777	789,289
C26IndChem	3,152	30,232	-27,080	1,576,929	1,237,423	339,506
C27AgChem	65	8,213	-8,148	32,314	25,357	6,957
C28TechMfg	9,087	30,332	-21,245	4,546,446	3,567,615	978,831
C29Vehicl	1,357	19,080	-17,723	679,068	532,867	146,200
C30Machnry	7,890	21,286	-13,396	3,947,284	3,097,450	849,834
C31Metals	2,312	19,908	-17,596	1,156,550	907,550	249,000
C32TxtAppr	54,162	34,402	19,760	8,407,685	3,708,610	4,699,076
C33OthInd	8,185	14,206	-6,021	4,095,206	3,213,525	881,681
C34Utils	0	545	-545	0	0	0
C35Constr	0	0	0	0	0	0
C36TrdTrns	7,098	4,392	2,707	234,944	523,441	-288,497
C37PrServ	25,615	15,489	10,125	847,812	1,888,878	-1,041,065
C38PbServ	1,049	5,371	-4,322	34,726	77,368	-42,642
Total	241,895	253,659	-11,764	29,829,235	25,431,786	4,397,450

Figure 3.2: ASEAN and Vietnam in ASEAN Shares of China Agricultural Imports, and Vietnam in Total (%)

	ASEAN Share	Vietnam in ASEAN	Vietnam in Total
<i>Rice</i>	81.70	5.44	4.45
<i>RawRub</i>	0.77	86.25	0.67
<i>CoffBn</i>	26.54	6.48	1.72
<i>SugCane</i>	0.00	0.00	0.00
<i>OthCrp</i>	5.77	16.09	0.93
<i>Pig</i>	10.89	24.09	2.62
<i>Cattle</i>	10.89	24.09	2.62
<i>Poultry</i>	10.89	24.09	2.62
<i>OtLvstk</i>	10.89	24.09	2.62
<i>IrrServ</i>	0.00	0.00	0.00
<i>OtAgSrv</i>	0.00	0.00	0.00
<i>Forest</i>	28.03	12.39	3.47
<i>Fish</i>	41.64	13.97	5.82
<i>Energy</i>	9.30	0.00	0.00
<i>Mining</i>	2.50	9.71	0.24
<i>Meat</i>	10.63	27.55	2.93
<i>Dairy</i>	10.91	0.00	0.00
<i>FrtVeg</i>	28.23	5.06	1.43
<i>Sugar</i>	20.51	22.65	4.64
<i>CoffBv</i>	26.54	6.48	1.72
<i>OtBvTob</i>	26.54	6.48	1.72
<i>SeaFood</i>	20.82	25.35	5.28
<i>Feed</i>	20.82	25.35	5.28
<i>OthPrFd</i>	20.82	25.35	5.28

Using baseline growth patterns from the global model used here, the remainder of this report evaluates alternative Vietnamese policy scenarios, emphasizing bilateral trade with China. It should be noted at the outset that our baseline assumes China implements its WTO commitments, including non-discrimination. This means that Vietnam may alter its existing patterns of import and export policy toward China, but that China cannot reciprocate selectively. Thus it is sufficient to simulate unilateral policies from Vietnam. Additionally, throughout these simulations we have assumed Chinese total factor productivity (TFP) growth in agriculture to be 2.5 percent annually, a relatively generous figure by global standards.

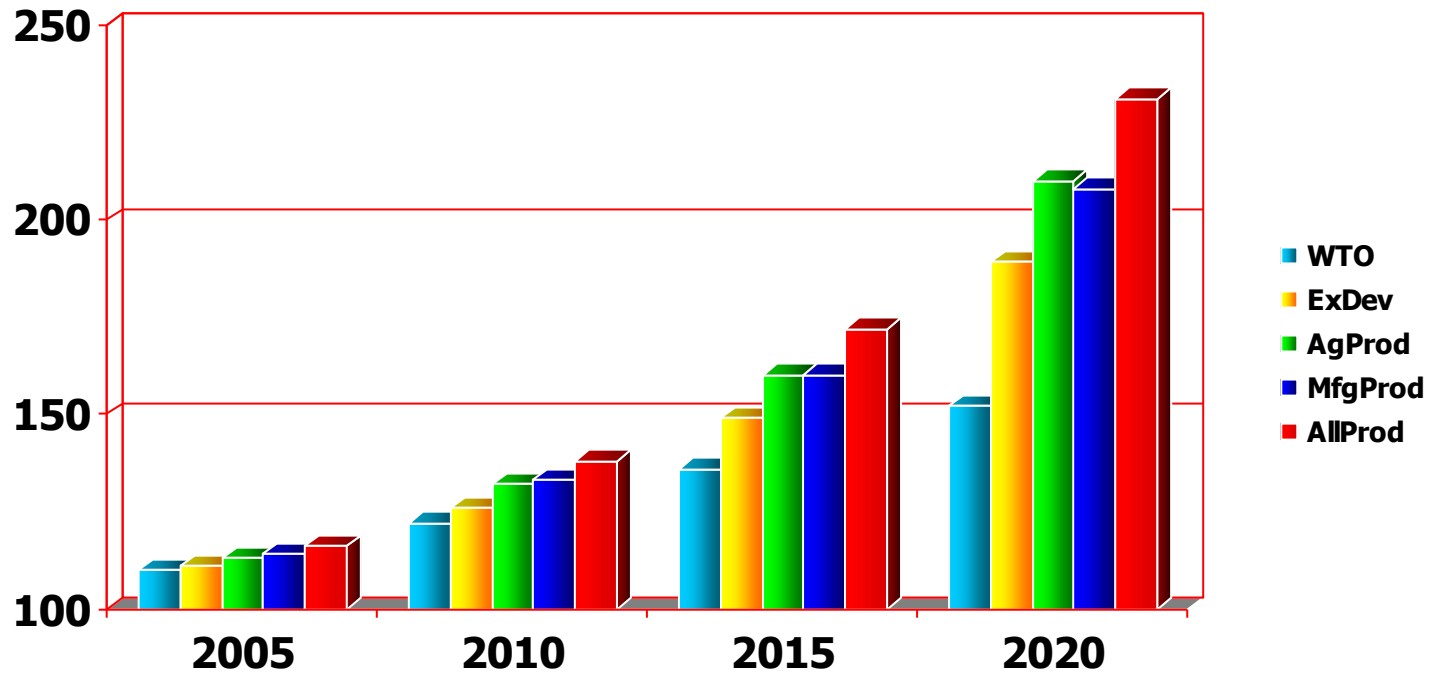
In addition to the baseline, five scenarios are examined here:

- *WTO*. Vietnam implements its current offer.
- *ExDev* (Export Development). Vietnam maintains its existing ASEAN trade share of exports to China, but with accelerated Chinese import demand as in Figure 3.2. Includes WTO.
- *AgProd* (Agricultural Productivity). ExDev with 3 percent annual factor productivity growth in agriculture.
- *MfgProd* (Manufacturing Productivity). ExDev with 3 percent annual factor productivity growth in manufacturing.
- *AllProd* (All Productivity). ExDev with 3 percent annual factor productivity growth in both agriculture and manufacturing.

As illustrated in Figures 3.1 and 3.2, the ExDev scenario (accelerated Chinese agricultural import demand and more exports to China) represents an appreciable increase over the WTO only scenario in both long-term GDP growth and household income. These results indicate that greater trade interdependence with China could have positive income effects across a range of

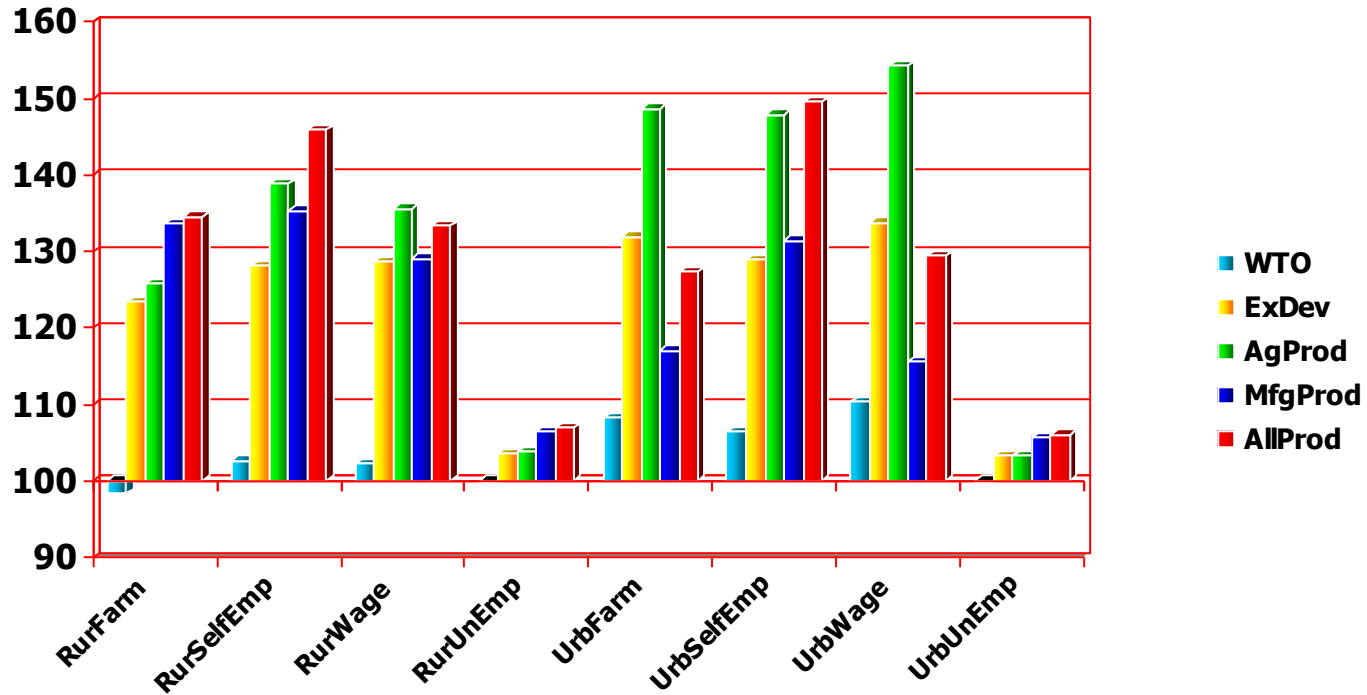
economic classes in Vietnam, as well as on Vietnam's aggregate economic growth. As both figures show, however, export development could be significantly enhanced by productivity growth.

Figure 3.1: Vietnam's GDP Growth to 2020 under the Five Scenarios



Values are normalized to Baseline2000=100

Figure 3.2: Household Income Effects for Vietnam under the Five Scenarios



Values are normalized to Baseline2000=100

CONCLUSIONS

The implications of China's continued economic growth for East Asian countries will ultimately depend on how governments, farmers, and businesses respond to new opportunities and challenges that accompany China's transition from an export-driven to a consumer-driven economy. Although China will continue to be a formidable competitor in manufactured exports for the foreseeable future, as a resource constrained country its domestic food production will be challenged to meet domestic demand over the longer term. Even under relatively conservative assumptions about China's real growth and optimistic ones about its productivity, changing demand patterns in China are likely to induce significant food import dependence within this decade.

For Vietnam's agricultural sector, China's growing food consumption presents new, extensive export opportunities. Alternatively, more efficient and higher quality agricultural production in post-WTO China will pose competitive challenges for Vietnam's agricultural producers, particularly in the country's more temperate north. For Vietnamese policymakers, farmers, scientists, and managers, meeting these opportunities and challenges will require continued, region-specific investments and improvements in agricultural production and research, market institutions, and physical infrastructure. In addition, on either a bilateral or regional basis Vietnam could greatly enhance the benefits of its trade with China through direct negotiation on issues of shared concern and institutionalized cooperation.

More broadly, this report outlines five overarching conclusions:

- A combination of land scarcity, the world's largest population, and growing food consumption could make China the world's largest food importer by 2010.

- Vietnam could capture a significant share of China's growing food imports, particularly with falling shipping costs as transboundary transport links connecting the two countries are improved.
- With its changing consumer preferences, maintaining and expanding market share for agricultural products in China will require Vietnamese agri-businesses to better understand the Chinese market, cut costs, and improve the quality of their products.
- Higher productivity in agriculture will ultimately determine the extent of gains from trade. Additionally, without productivity growth, new demand for agricultural products from China will simply divert trade and domestic resources, creating food inflation and reducing growth elsewhere.
- In addition to reforms in agriculture, bilateral or regional institutions that monitor and facilitate trade could play an important role in stabilizing the volatility in price and trade volumes that has characterized Vietnam's trade with China to date.

This report also contributes to the basis of evidence on China's looming agricultural import dependence with estimates from a dynamic global CGE model. The results presented here also mandate ongoing research to examine the components of Vietnam's adjustment process more closely and identify policies that can capture both the absolute and relative benefits of liberalization while offsetting adverse effects. At the same time, further methodological work would be desirable to appraise the robustness of the projections presented here and examine a wider universe of policy regimes.

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