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Food Price Inflation in East and Southeast Asia: Situation, Driving Forces, and the Outlook

Food price inflation has raised concerns about food insecurity and systemic crises in East and Southeast Asia, given the region's population size, economic significance, and role in the international food market. COVID-19 repercussions, extreme climate- and weather-induced events, anthropogenic stressors such as global economic softness and the Russia-Ukraine war, and many other uncertainties enlarged the supply-demand imbalance of food. Those factors are not likely to ease in the short term and in the meantime, potentially new food crises are simmering in East and Southeast Asia. Meanwhile, China's reopening and deepened intraregional integration have allowed the region's food price situation to be less grim than elsewhere. This article conducts a political-economic analysis in order to identify the major forces driving recent food price inflation in the region as well as to explore what proactive measures can build greater food system resilience during the post-COVID-19 recovery. This article recommends that countries refrain from imposing further export restrictions (whatever their form), and instead deepen dialogues and cooperation in order to facilitate food system resilience against the looming risks, such as El Niño.

Keywords: food price inflation, driving force, political economy, East and Southeast Asia
JEL classification: Q11

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Introduction

Achieving a sustainable recovery from the COVID-19 disruption is challenging, with levels of resilience and vulnerabilities differing across countries, sectors, and population groups. Factors including global economic recession, surging commodity prices, geopolitical tensions, and their nested repercussions continue to burden global social-economic activities and are likely not to ease in the short term. Given such a context, global economic growth is forecasted to decelerate in 2023 and to revive to a 0.3-percent-lower pace in 2024 as compared to the 3.4 percent growth witnessed in 2022. At the regional level, the socio-economic development situation for East and Southeast Asia looks relatively robust when contrasted with other world regions. Most countries in the region started to enjoy revivals in 2022 and are expected to increase their rate of growth by a further 1.6 percent to 5.1 percent in 2023, catalysed by China's reopening (IMF, 2023). However, price inflation, short-term interventions intended to rein in the price surge, imbalances that have become more apparent during the post-COVID-19 recovery, and the war in Ukraine can still weigh down the rebound of developing East and Southeast Asia.

Since 2022, steep price inflation has edged its way up to becoming one of the foremost concerns amongst all the mid- and long-term risks globally. For East and Southeast Asia, one of the world's most densely populated regions, the price inflation of food has increasingly generated concerns about food insecurity and systemic crises (Jones and Nti, 2022). Food price inflation (or simply food inflation) is commonly indicated by the price change of a basket of food commodities using Consumer Price Index (CPI). It normally occurs when food supply cannot meet demand, or when the cost of food production and distribution increases due to factors such as weather conditions, input costs, currency exchange rates, etc. According to documented experiences, the increase and volatility of food prices affect the purchasing power of consumers, particularly the low-income and the poor relying on agriculture, and can generate wider economic impacts through the dynamics of multi-level agri-food systems and the forces within (food insecurity, weakened human capital accumulation, added fiscal burden on subsidies, etc.) (Dessus *et al.,* 2008; Fujii, 2013).

As recent price inflation became a critical concern for policymaking and under the lens of political economists, knowledge of the price inflation of food has developed progressively. East and Southeast Asia attract particular attention due to the region's share of the global population and economy, as well as its substantial role in the international food market. However, there remains a research gap when it comes to in-depth and comprehensive knowledge about sources and solutions to the region's food price inflation. This article provides a political-economic analysis of the major forces driving the recent food inflation in East and Southeast Asia. By reviewing key policy reactions across East and Southeast Asian countries, it also contributes to the exploration of proactive measures for cultivating food system resilience in the region's economies. Finally, it paints a broader picture of the post-COVID-19 "new normality".

The remainder of this article is organised into four sections. The next section outlines the background to the recent cereal price change. The third section delineates the major driving forces of the price change, based on a political economy perspective. The fourth section highlights vulnerabilities, major policy interventions, and the way forward for the region. The last section concludes with the key policy implications and the limitations of this article.

Recent Food Price Inflation in East and Southeast Asia

Global commodity price inflation peaked in 2022 as the record high in the recent two decades, generally raised concerns about a perfect storm with social-economic disruptions by the COVID-19 pandemic and the war in Ukraine, etc. Compared to the rest of the globe, East and Southeast Asia retained a lower inflation rate on average (Figure 1). However, pictures across the subregions and the countries largely differ. Whereas East Asia had a 2.3 percent inflation rate in 2022, the rate for the south-eastern subregion increased by 3 percent from 2021 and hit 5 percent. Price inflation in most Southeast Asian countries more than doubled. Laos and Myanmar both experienced a surge in commodity prices and their price inflation rates sextupled and quadrupled respectively. The inflation rate for Mongolia had been stubborn at around 7 percent even before the pandemic and reached 15.2 percent in 2022.

Amid low economic growth and high price inflation, the global agricultural Commodity Price Index ramped up in 2022, in line with price hikes affecting fertiliser, fuel (energy) and food (Figure 2). Food prices have fluctuated around a record-high level since 2021, and then picked up. Although global food prices retreated in late 2022, the possibility of further food price change demands continued vigilance. Domestic food price inflation has turned out to be rather stubborn. While global fertiliser and energy price indices tilted downwards in the first quarter of 2023, the year-on-year domestic food price inflation rate surged again and averaged nearly 20 percent. Amongst all the regions, East Asia and the Pacific witnessed the lowest rate of domestic food price inflation – 11 percent (Baffes and Mercer-Blackman, 2023).

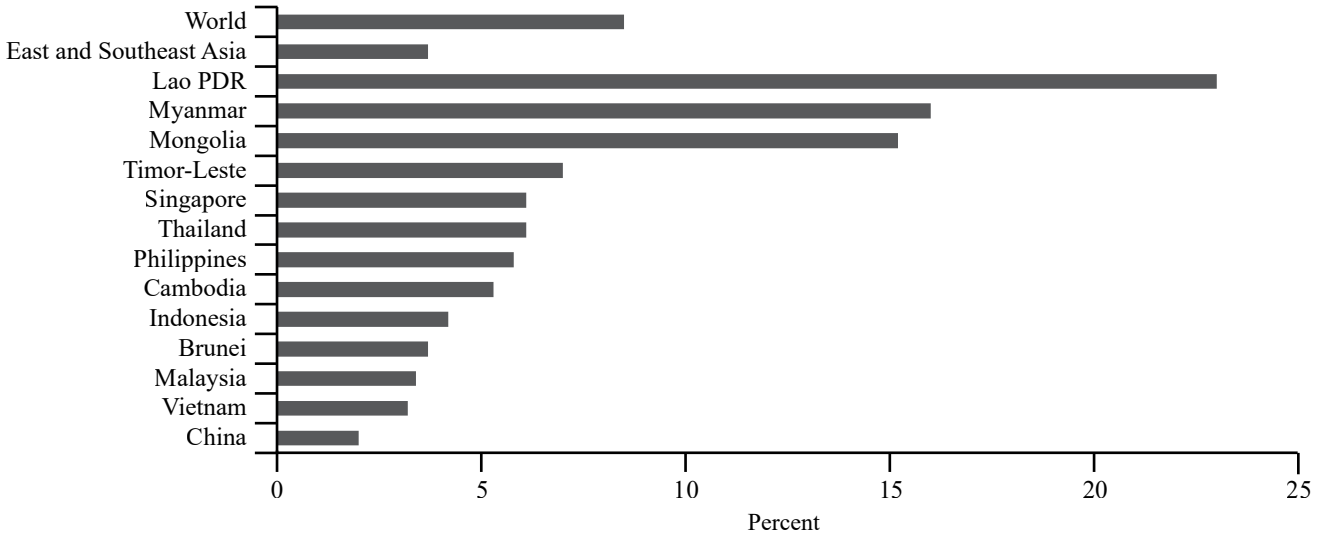

Figure 1: Price Inflation Worldwide and in East and Southeast Asia, 2022.
Source: Own composition based on ADB (2023) and IMF (2023) data

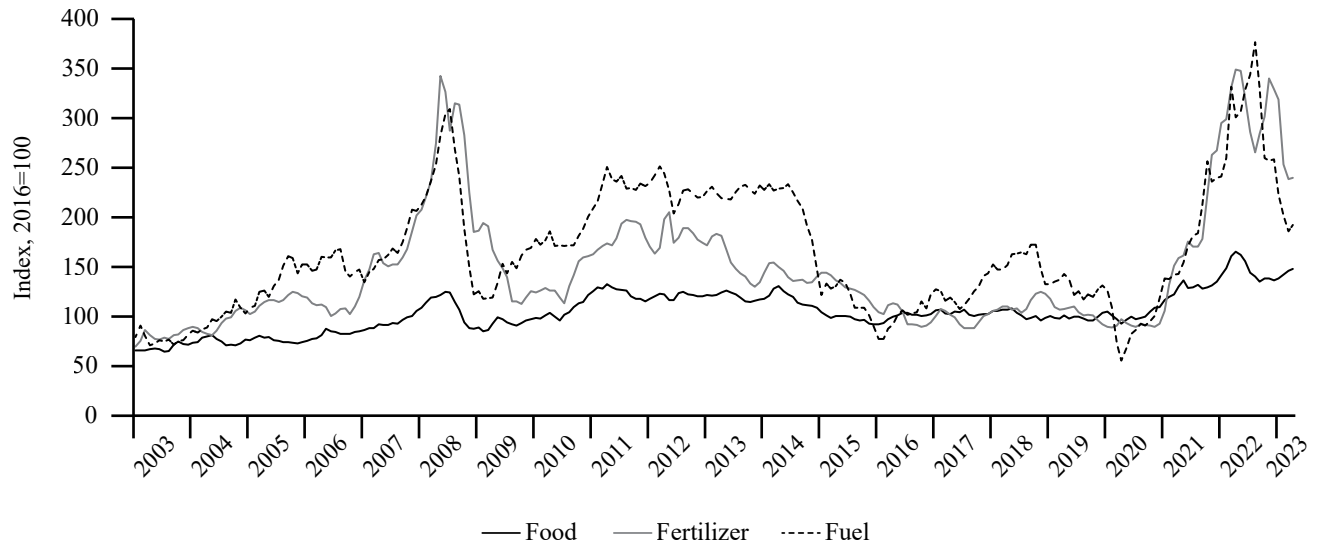

Figure 2: Commodity Price Index, January 2003 – April 2023.
Source: Own composition based on IMF (2023) data

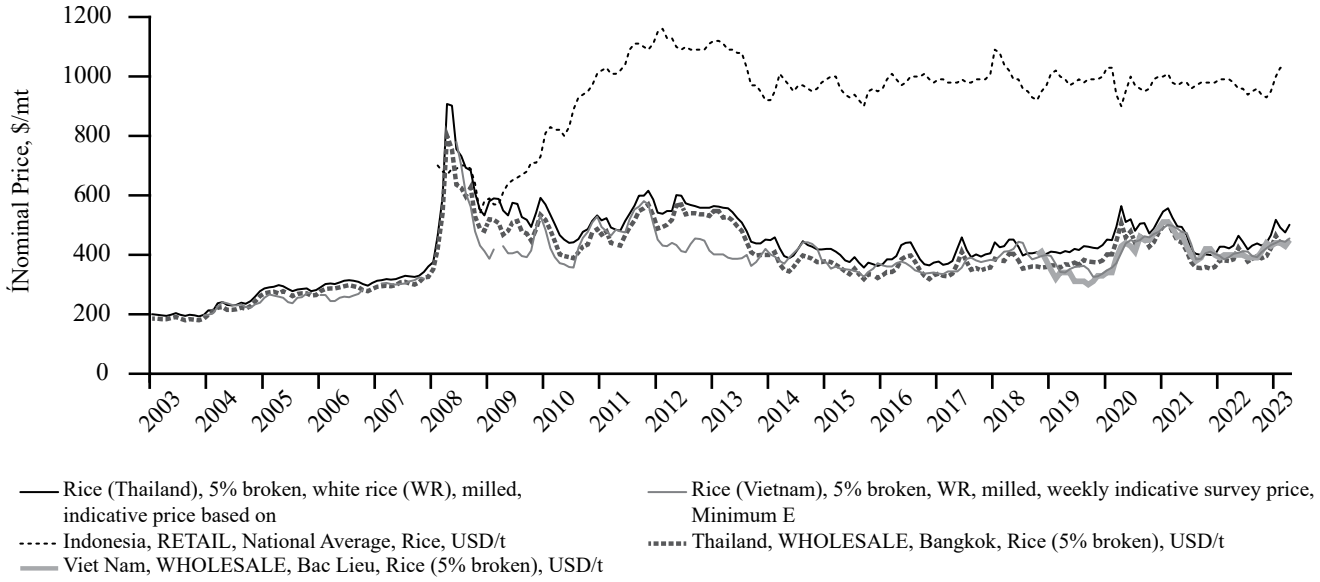

Figure 3: Export Price and Domestic Price of Rice, January 2003 – April 2023.
Source: Own composition based on FAO (2023), Bloomberg, US Department of Agriculture and World Bank (2023) data.

Among all food categories, cereals are closely engaged in food security and sovereignty concerns. While food price inflation situations vary largely across countries, global maize and wheat prices were 17 percent and 38 percent lower respectively on a year-on-year basis in the first quarter of 2023. However, the price of rice was 15 percent higher (WorldBank, 2023a). In East and Southeast Asia, rice is the most important staple in terms of production, consumption, and trade. Vietnam and Thailand are the pre-eminent rice exporting countries in the region and are among the top three globally. China, the Philippines, and Japan are the region's major rice importers, and China is the leading rice producer and consumer in the world. According to IRRI (2018), rice provides half of the calorie intake for residents in Southeast Asian countries.

Figure 3 shows the price trend of rice over the recent two decades. Export prices of rice from Thailand and Vietnam have both rebounded by around a quarter since 2022 but the extent of this remains modest when compared to the strong recovery that followed the global financial crisis in 2008. Meanwhile, food price inflation has continued to edge upwards in the region's food importing countries. In China, where year-on-year food price inflation rate averaged around 6 percent in 2022, food inflation headed upwards in early 2023 after the roll-back in late 2022 (ADB, 2023). For rice, the retail price in Indonesia has risen again sharply since the first quarter of 2023.

Driving Forces of Food Price Inflation in East and Southeast Asia

Major forces driving global food price inflation have dented the fast development of East and Southeast Asian countries, and further negative effects still seem possible in future. If we consider that the region supports about 30 percent of the global population and contributes over a quarter of world GDP (World Bank, 2022d), it is vitally important to delineate the driving factors of food price inflation in order to indicate the way that must be taken towards resilience and sustainability.

Imbalance of Food Supply and Demand by COVID-19

Rapid urbanisation and structural change in the region's developing economies have been driving up both the demand for, and the prices of, agri-food products. The COVID-19 pandemic resulted in recurrent disruptions of global supply chains, which have taken their toll on food price inflation via imbalances between supply and demand that have arisen due to, for example, trade protectionism measures and adverse market sentiment.

Agri-food production in East and Southeast Asia has long relied on intensified input usage, including labour, chemical fertilisers, pesticides, herbicides, and financial inputs. An especially intensive input pattern of synthetic Nitrogen fertiliser use prevails in China and the Southeast Asian subregion. The region's fertilisation rate is amongst the highest globally (Menegat *et al.,* 2022). Recurrent lockdowns that coincided with delays and disruptions in transportation, logistics networks and exports that can all be attributed to COVID-19, made it challenging to procure agricultural inputs like seeds, fertilisers, and pesticides during the pandemic period. China is a major fertiliser exporter to Southeast Asia. Reduced production of fertilisers as well as their export from China during the pandemic upset the supply of chemical fertilisers to major agricultural producing countries in the Southeast Asian subregion. Given the limited availability and high prices of agricultural inputs such as fertilisers, energy and fuel, cereal planting areas and yields in countries such as Myanmar were estimated at below-average levels in 2022 (FAO, 2022a). Less-than-average plantings in

some countries and higher production costs in general can be assumed eventually to translate into increased cereal prices for consumers.

Other than the production costs *per se*, the pandemic-induced disruptions have also burdened the limited finances of agri-food producers, especially smallholder farmers. As many working-age adults in the region's developing countries have migrated out to non-farm sectors, cities and abroad for better-paying jobs, remittances have for a while been an important source of finance for agribusinesses. However, lockdown conditions and travel restrictions within and across countries reduced the overall quantity of remittances, including those made to rural households. While the remittance inflows were relatively robust in the Philippines and Vietnam, countries including Laos, Cambodia, Indonesia and Myanmar witnessed a greater than 10 per cent drop after the pandemic shocks (ADB, 2022b). In the rural areas, where access to credit had in any case been limited before the pandemic, the disruptions of livelihoods (including farming activities, migrant jobs, etc.) further reduced the scant deposits of rural households. This may have served to discourage farmers from quickly adopting new technologies and good agricultural practices during the post-COVID-19 recovery, thereby dampening the sustainable growth of agricultural production in the pandemic's aftermath.

Export restrictions, bans, and the imposition of other controls (including higher freight charges and sanitisation measures at ports and warehouses) on basic food items by major producers naturally have implications throughout food supply chains. If we take rice as an example, India, Thailand, and Vietnam are the leading exporters worldwide. Rice export prices were depressed before the COVID-19 outbreak, but after the onset of the pandemic soon acquired a buoyant rising momentum due to expanding market demand. Given the pandemic shock and many other perceived risks, factors that reflect market sentiments (such as consumers' panic food-buying behaviour and importers' stockpiling to supplement domestic production) contributed to this turnaround. On the supply side, in September 2022, India banned broken rice exports and imposed higher taxes on several other varieties of rice exports to stabilise domestic prices (Jacob, 2022). As a subsequent reverberation, Thailand and Vietnam reportedly met to agree on a rice-export cartel plan, which might serve to ramp up their export prices by a fifth (Muramatsu and Onishi, 2022). On the demand side, despite the existence of such a cartel plan being in doubt, the actual protectionism and uncertainty that have been witnessed have triggered market panic across East and Southeast Asia.

Thus, COVID-19 challenged both the availability and the affordability of food products (including rice, cooking oil, canned goods, etc.), and this was especially so for countries highly dependent on food imports. Many of the member states of the Association of Southeast Asian Nations (ASEAN) are net importers of fuel and food (rice, wheat, soybean, and maize). Being the front importers of main staple in the Southeastern subregion, Indonesia, the Philippines, and Malaysia were estimated to be the most vulnerable to the embargoes and price changes. As indicated by Figure 3, the retail price of rice in Indonesia soared back to a high level after the pandemic outbreak and remained elevated in the first quarter of 2023. For the largest importer of various food commodities, China, the effects of both domestic lockdowns and international food price inflation both passed through to the fluctuation of its food prices and raised concerns about risks considered more broadly (e.g. rice imports in the first quarter of 2020 increased by 60 percent). Nevertheless, the impact mechanisms have been complicated. Greater demand for domestic agri-food products facilitated the expansion of planting areas of cereals and so forth, the provision of which cushioned demand growth and price inflation regarding key foods.

As the COVID-19 waves subsided and the lockdown measures were lifted, and very much in tandem with China's reopening and pro-growth policy stances, the pandemic-related supply chain suspensions abated. This backdrop has been reflected in the sober food price trends in the second half of 2022. However, crises emanating from extreme climate and weather events and global market conditions are increasingly affecting food markets in East and Southeast Asia, bringing more uncertainty to food prices.

Extreme Weather Events and looming El Niño

Most of the social-economic activities of East and Southeast Asia have occupied coastal areas and river basins, while many governments of the developing areas have lacked the capacity to respond to natural hazards. Food systems of the region, whether these have been irrigated, rainfed or dependent on some other set of practices, have been rather sensitive to abnormal patterns of precipitation and temperature as well as other extreme climate- and weather-induced events (e.g., droughts, floods, typhoons, and sea level rise). By disturbing all stages of agri-food value chains (e.g., the growth, harvesting, and storage of crops, as well as livestock rearing, together with the storage and transport of animal products), weather shocks can have an impact on the cost and supply of nearly all agricultural products, and thus also their prices.

The embeddedness of East and Southeast Asian economies into regional and global value chains continues to deepen via trade and cooperation. It serves an important role in meeting the region's transformative dietary demands and keeping prices within affordability, in such a way as to underpin food security. However, the cascading impacts of climate change on the supply of the region's bulk food products (e.g., cereals, palm oil, and sugarcane) can obstruct trade flows, and further impair global food prices. If we take staple foods as an example, on the importing side, countries in the Southeast subregion are warned that they can expect to encounter rice yield gaps between the yield potential and the average outputs, which is about 48 percent of the potential at the subregional mean. Indonesia and the Philippines will likely endure further dependence on regional trade by 2040 (World Bank, 2022c). On the exporting side, a mere percent year-over-year growth in temperature is projected to increase the rate of producer food price inflation by some 0.5 percent in Thailand and Vietnam (Oxford Economics, 2022a). If we consider the wider picture, Southeast Asia has been a major food supplier for East Asia, Central Asia, and Africa. The food system risks of the subregion can function as a magnifier of global food crises regarding availability, price inflation, and even food sovereignty for some economies.

Among the world's most affected by long-term climate risks, Myanmar, the Philippines, and Thailand have persisted in the top tier over the past two decades. Vietnam and Cambodia have ranked afterwards but remain highly affected. China and Japan have sustained middle-range scores, yet have born the highest climate-risk-induced economic losses (Eckstein *et al.,* 2021). In 2022, China's agricultural production was challenged by a combination of record-breaking heatwaves, severe drought, and heavy rainfall. While domestic reserves and output served as a buffer to some extent, these problems still contributed to overall market sentiment concerning food price inflation. According to IPCC (2022), the direct negative impacts of the extreme events on agri-food systems will far outweigh the expected growth in crop yields as global warming exceeds 1.5°C above pre-industrial levels. The outcomes, which will be disproportionately felt across food value chains and countries in the region, may lead to higher fluctuations in food prices and more complicated price transmissions.

El Niño has about an 80 percent likelihood to eventuate during the second half of 2023 (WMO, 2023). It exacerbates global warming and makes extreme weather events assume both a higher intensity and a longer duration, factors which can serve to complicate global food demand and supply. For example, continuous temperature growth fosters thermal effects that reduce soil fertility and food yields, and it also increases producer costs by challenging energy supply and water resource management. Globally, El Niño events will affect more than 25 percent of cropland, with slight increases in soybean yields and losses in maize, rice, and wheat yields at the global mean (WorldBank, 2023b). Besides grains, El Niño events usually coincide with a bullish price trend for palm oil, one of the key exports of Southeast Asia. So far as developing East and Southeast Asia are concerned, China is forecasted to experience floods in the south and droughts in the north, while countries in Southeast Asia are likely to encounter higher incidences of temperature spikes and droughts (WMO, 2023)/EndNote>.

At the country level, the rice output of Thailand is estimated to decline by 4 to 6 percent under a moderate El Niño impact; but the gap may far exceed the lower bounds of expectation once severe droughts have slashed output (KasikornResearchCenter, 2023). As such, farmers in Thailand have been advised to cultivate just one crop in 2023 and to opt for less water-intensive crops (Nguyen and Ng, 2023). On the demand side, for example, importing more rice has been considered by Indonesia as a possible way to offset El Niño and the fact that it has insufficient reserves (Mentari, 2023). The impact of El Niño on the region's rice supply is a latent driving force of a new round of food price inflation (Mamun and Glauber, 2023).

Extended extreme climate- and weather-induced events can further challenge many other food-system dimensions (e.g., human health, eco-environmental systems, rural infrastructure, etc.), all of which add further uncertainty to the picture concerning food availability and affordability. While improving productivity is fundamental to stabilising the food supply, change in land use and the overuse of agrichemicals and water are substantially compromising environmental resilience in developing East and Southeast Asia (Chen and Zhan, 2022). Meanwhile, knowledge of and resolutions on farmers' health status while enduring extreme events such as heatwaves remain scant (IPCC, 2022). In addition, the region's economies have generally pledged to reach carbon neutrality and/or net zero by 2050 (Zhou *et al.,* 2023). Although there may yet be positive spillovers that serve to stabilise food prices, a successful transition to net zero may give rise to substantial additional cost pressures – mainly concerning energy and labour – to agricultural producers, which may also eventually be passed on to consumers (OxfordEconomics, 2022a).

Political and Economic Factors at Multiple Levels

In addition to extreme climate- and weather-induced events, external stressors such as global economic softness and the Russia-Ukraine war exacerbated the supply-demand imbalance of food during the pandemic. Those anthropogenic factors are not likely to ease in the short term and potentially new food crises continue to simmer during the post-pandemic recovery in East and Southeast Asia. Simultaneously, as a group of political and economic characteristics (e.g. China's reopening and deepened intraregional integration) facilitated food system resilience in East and Southeast Asia, the region's food inflation situation was less grim against global food price trends (Chen *et al.,* 2023).

The war in Ukraine was the foremost factor accounting for food price inflation reaching record highs during the pandemic. On the one hand, Russia and Ukraine have been major global suppliers of wheat, barley, and sunflower oil. The war directly imperils the global grain supply, the threat to which triggered the price surge of wheat to record highs in 2022. Given the relatively tranquil price of rice, the price inflation of wheat may progressively intensify the demand for rice as a substitute, which can lead to the depletion of rice stocks and then lead to higher rice prices, especially across Asia. As the growth in rice consumption outpaced that of production, what used to be a surplus of production over demand has turned into a gap since 2018. Whereas abundant rice reserves in China buttressed over 60 percent of global rice stocks, national rice stocks were low elsewhere and have shrunk further since the pandemic outbreak (including in China). The world's largest rice exporters (India, Thailand, and Vietnam) have all witnessed a slip in domestic rice reserves since 2021. In particular, the 2023 rice stock level of Vietnam is projected to be around 20 percent lower than in 2022 (IGC, 2023). For the net rice importers, rice stocks in Indonesia and the Philippines lingered at a low level (as shown in Figure 4). The symptoms are expected to expose those import-reliant countries to higher dependency on the global market, incurring additional uncertainties regarding food availability and affordability across East and Southeast Asia and beyond.

On the other hand, the outbreak of the Russia-Ukraine war interfered with the trade in energy (fuel) and fertiliser (and its raw ingredients). The upsurge in fertiliser prices (e.g. nitrogen and phosphates) that was induced by the war in Ukraine coincided with downgraded fertiliser production in the EU, as well as a contraction in Chinese fertiliser production and export – all of which stoked up agricultural produc-

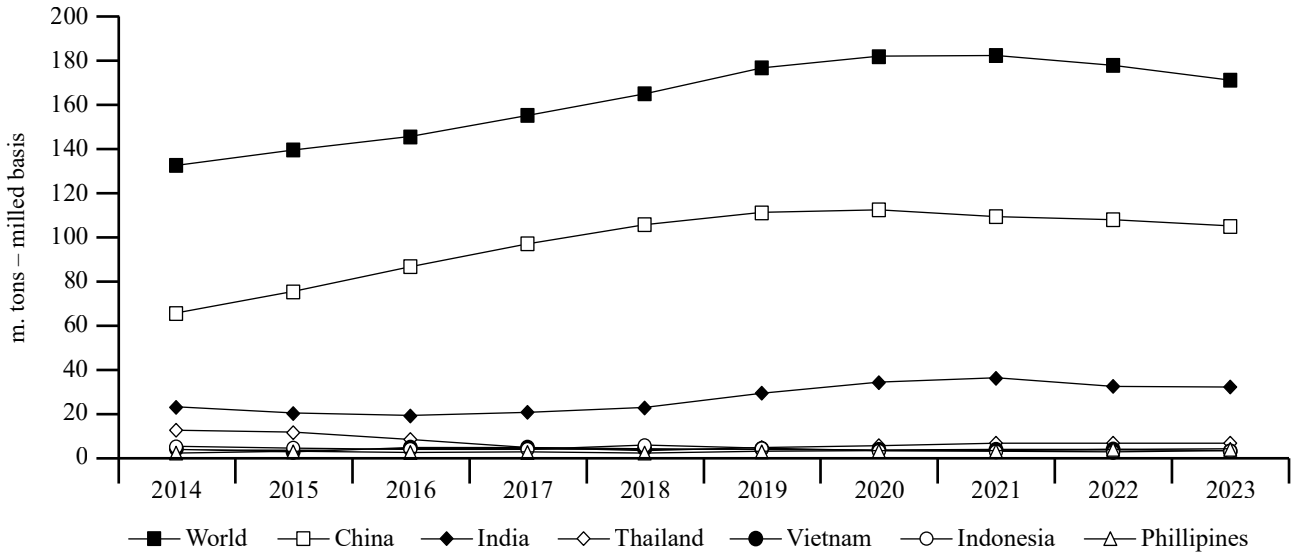

Figure 4. Rice Stocks, 2014-2023.
Source: IGC (2023) data

tion costs and thus also food prices (Jones and Nti, 2022). Cereal production across Southeast Asia was especially negatively affected in 2022 (FAO, 2022a). However, the supply of fertiliser has begun to increase since the renewal of the Black Sea Grain Initiative. Since global fertiliser prices subsided sharply in the first quarter of 2023 from their previously perilous level, improved fertiliser availability is expected progressively to boost agricultural production and to tame food price inflation in Southeast Asian countries as compared with last year.

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A general equilibrium trade model suggests that the war in Ukraine has increased the price of global agricultural products by 10 to 30 percent and lessened the purchasing power of 52 countries (areas) by 15 to 25 percent on average (Feng *et al.,* 2023). However, at the regional level it has had modest direct impacts on food systems in East and Southeast Asia if compared with elsewhere (e.g. Africa and Central Asia). Associated economic sanctions imposed by Japan, Singapore, and the major developed economies elsewhere had limited economic reverberations from most of the region, but spillover effects have been gathering (e.g., price fluctuations of both oil and gas). Deepened intraregional trade and value chain embeddedness, overall stable rice yields and inventories, and relatively limited wheat consumption in the Southeastern subregion were key factors enabling East and Southeast Asia to blunt the effect of costs arising from the war in Ukraine. However, given that the conflict between Russia and Ukraine has not yet found a solution, risks in agricultural product supplies persist across the region.

Beyond such geopolitical tensions, global economic softness represents another backdrop to food price inflation. Over the recent decade, aggressive and ultra-loose monetary policy further propped up by expansionary fiscal stimulus in many developed countries had not escorted economies to sustainable and buoyant growth, but instead has generated rather high inflation pressures globally since the pandemic outbreak. As the Federal Reserve increased interest rates to curb domestic inflation, the picture has worsened for many developing countries, especially those relying on importing food and fuel (e.g., Cambodia, Mongolia, the Philippines, and Thailand). During the pandemic, a group of East and Southeast Asia countries implemented loose monetary policies, which contributed further to local currency devaluation, declines in real income, and rising food import bills. Meanwhile, given the presence of large primary deficits and extended debt vulnerabilities during the pandemic, weak currencies exacerbated the risks of a debt crisis occurring in many East and Southeast Asian developing economies (e.g., Mongolia and Laos). If we take into consideration China's structural slowdown in economic growth and the unbalanced sectoral revival of ASEAN member states from COVID-19, the macroeconomic pressures appear rather stubborn and imply that there will be more challenges affecting access to food (WorldBank, 2022a).

In addition, as the trend towards financialisation has coincided with the development of biomass energy, different markets (e.g., grain, currency, financial futures, and energy) have become progressively more interconnected. However, the financialisation of both the grain market and the energy market has increased the volatility of global food prices to

some extent. Meanwhile, greater control on the part of international grain merchants over grain spot and futures markets has contributed to driving up global food price inflation and has reduced confidence in global food markets since the pandemic. Countries that are highly dependent on an international food supply are likely to be exposed to higher market uncertainties. Nevertheless, from a long-run perspective, the primary driving forces of food prices remain the fundamentals of supply and demand.

Vulnerabilities, Measures and the Way Forward

Food System Vulnerabilities

Food systems are a cornerstone for the sustainable development and resilient recovery of most East and Southeast Asian countries. On the one hand, the sectoral contribution of agriculture to domestic value-added remains at around ten percent or better, although the share of agriculture in the region's developing economy has declined in relative terms during the structural transformation (WorldBank, 2022d). Both the driving forces behind, and the consequences of, food price inflation have extensive implications for the welfare of agri-food producers, who are mainly smallholder farmers in East and Southeast Asia. Facing increasing production costs and consumer prices, farmers may switch from staple food crop production to cash cropping (or even quit farming) for the sake of a higher surplus. As food production in East and Southeast Asia plays an important role in sustaining global food security (e.g., by delivering half of the planet's rice yields, as well as a portion of maize, wheat, rubber and oil palm), changes in the region's food production system can destabilise the domestic supply of many strategic agri-food products and adversely affect global food security (Thanichanon *et al.,* 2018).

On the other hand, many countries in the region rely on imports to meet domestic food demands. Among developed nations in the eastern subregion, Japan imported (especially meat products, corn and wheat) about 62 percent of its food on a calorie basis in 2021 (JapanNews, 2022). Inflationary food prices throughout the international market and the devaluation of the yen have intensified pressures on the food imports of Japan. In the case of developing economies in East and Southeast Asia, rapid urbanisation and structural transformation have been reshaping food demands, but the extent of a nation's dependency on international food markets differs between countries. For example, as wheat consumption is expected to grow due to demographic and dietary changes, Indonesia and the Philippines are likely to increase wheat imports for both food and feed use. However, while China's wheat consumption is projected to rise, the level of imports may stay steady due to bountiful domestic crop harvests and competitive corn prices (USDA, 2023). Nevertheless, rising food prices can expose the vulnerabilities of the region's agri-food systems to international uncertainties (such as protectionism) during their efforts to secure food accessibility.

On the consumption side, the share of consumer expenditure on food is at or beyond 20 percent for most developing economies in the region. Myanmar (56.6%), Laos (50.6%), and Cambodia (42.7%) feature the highest Engel's coefficient in the region. For Vietnam and Myanmar, the average expenditure on food is not sufficient to sustain the cost of a healthy diet (USDA, 2023). Meanwhile, although the region's 2022 Global Hunger Index scored low, many nations in the southeast subregion saw their progress against child stunting (for example, Timor-Leste, Laos and Indonesia) and wasting (Indonesia, Malaysia and Cambodia) stagnate (von Grebmer *et al.,* 2022). In 2022, Myanmar, Cambodia, and the Philippines suffered from the highest rate of insufficient food consumption among ASEAN member states. No country in either subregion is on schedule to meet its targets for curbing anaemia in women of reproductive age and adult obesity (DevelopmentInitiatives, 2021). Given that the cost of a healthy diet in all East and Southeast Asian economies has already tilted upward, the price surge affecting food (especially staples) and energy can be expected to further magnify the welfare losses for vulnerable groups.

The adverse effects of food price inflation on the region's social-economic development and the progress toward Sustainable Development Goals (SDGs) are large and likely to carry long-term implications. For example, given limited and uncertain access to the social safety net and nutrition security, the poor living in rural areas and informal employment and migrant workers in cities fared worse in many developing countries of East and Southeast Asia (FAO, 2022b). Although poverty alleviation in some developing countries in the region has been brought back on track since 2022 after a hiccup, the recovery remains fragile as low-income and vulnerable households face increasing food and energy prices. Latent inequality traps (for example, those affecting nutrition and health) during recovery can dent the human capital accumulation of those on a low income and the vulnerable, with long-term implications for both social mobility and economic development (Deaton, 2003).

Key Measures

In response to recent food system crises (COVID-19, the war in Ukraine, extreme weather events, global economic softness, etc.) and their nested repercussions for food demand and supply, governments in East and Southeast Asia have all prescribed measures to mitigate the adverse impacts and pursue development.

On the consumption side, most nations provided rescue packages and targeted measures to secure food accessibility and affordability for the poor and most vulnerable during the pandemic, including in-kind food distribution, cash transfer programmes, and widened social protection schemes. To meet the shortfalls of domestic food consumption and offset consumer price inflation, governments have generally considered increasing food imports (e.g., rice and meat) and seeking alternative sources of imports. In the private sector, E-commerce had already developed in major regional economies before the pandemic and has since demonstrated its proactive use in organising food distribution. Meanwhile,

the innovative use of fintech has facilitated the recovery of small- and medium-sized enterprises (SMEs) in ASEAN member states like Indonesia, where SMEs account for a large share of the economy (ADB, 2022a). Finally, and dealing with a much broader context than simply the food sector, China has drafted a financial stability law to deal with systemic risks (WorldBank, 2022b).

Besides, many policies and budgets were deployed on the production side, in such a way as to stabilise domestic food supplies and tame food price inflation. To protect and support agri-food producers, East and Southeast Asian governments carried out subsidies and distribution of input, price support through procurement and regulation, and other policies targeting broad-based rural development and urban-rural linkages. In particular, many have implemented programmes to stimulate local food production and short value chains (Elbehri *et al.,* 2022). For example, Malaysia has set up RM1 billion via the Bank Negara Malaysia Agrofood Financing Scheme to raise self-sufficiency levels, encouraging local food production and improving productivity with digital technologies and credits incentives for agribusinesses (Basyir, 2022). Given its robust food production, Vietnam also maintained a relatively low food price inflation rate. Nevertheless, the government has remained vigilant with regard to global inflation and has been improving food safety standards and trade policies (Elbehri *et al.,* 2022).

Governments in the region have often increased agricultural production support, and even introduced export restrictions, food price controls and food self-sufficiency programs, to tame domestic price pressures in food (grain, especially rice) and fuel under the crisis backdrop. However, many short-term measures (e.g., public policy support through price fixation and trade barriers) have distorted the market. Meanwhile, the loosening of environmental regulations and the staple-biased form taken by production support during the pandemic contradicted the previously established trend of green production and dietary diversification. Further price surges and inflation regarding agri-food commodities are likely to ramp up the budgetary costs of government subsidies and price controls, limiting the scope of future policy support in agriculture (WorldBank, 2022c). Given that the abilities (due to their fiscal positions) of different governments to sustain fiscal buffers may vary, supply conditions for the agri-food sector in the Philippines, Thailand, and Malaysia may be more at risk from tightening support (OxfordEconomics, 2022b).

As for the cascading impacts of climate change, regional economies have strived to protect ecosystems and decarbonise the food supply chain (Mosnier *et al.,* 2022). To balance agriculture productivity within the bounds of climate, many countries supported technologies and practices of climate-smart agriculture (CSA), including capacity building, climate-resilient crops and planting calendar adjustment systems, efficient machinery, etc. In the case of the China Weather Index Insurance Project, digital insurance has shown that it has the potential to stabilise the income of small-scale farmers in the event of a natural disaster (GlobalIndexInsuranceFacility, 2021). A cross-country review of experiences that involves scaling out location-specific CSA models in ASEAN recommends that the best approach involves starting out with knowledge sharing, then mainstreaming tested interventions as government policies, and finally sustaining efficiency with proper market strategies (Barbon *et al.,* 2021).

The Way Forward

Different approaches have been taken to the post-COVID-19 recovery across global economies. Central banks of the major developed countries and even some emerging markets have raised interest rates significantly in 2022 (and beyond) in an effort to curb inflation. In line with rising interest rates and tightening financial conditions, most economies are expected to experience slower growth in 2023. In contrast, China enjoyed a fast economic rebound after the optimisation of its pandemic controls. The pro-growth stances of its macroeconomic policies have had significant impacts on its economic recovery. Although institutions differ on China's performance outlook, its GDP growth rate is expected to be around 5.9 percent in 2023 (Gu, 2023). The reopening and solid economic growth in the economic powerhouses of East and Southeast Asia are now galvanising the prospects for the region through trade, tourism, and other positive spillovers to the rest of developing Asia.

Simultaneously, the consumer price index of the United States persisted at a relatively high level in the first quarter of 2023, which means the Federal Reserve remains under pressure. Higher debt and interest rates in the United States and Europe can intensify the risks to preserving financial stability, expanding adverse effects on energy and food markets. The indeterminacies of geopolitical conflicts can in the meantime trigger repeated supply chain disruptions and food price spikes that will reinforce pressures on global inflation and monetary tightening. The looming El Niño and elevated economic protectionism will represent persistent challenges in the next few years.

The global inflation rate is projected to be moderated in 2024, which may lift burdens for food prices. For East and Southeast Asian economies, whereas the inflation rate in such as Brunei, China and Thailand remain steady and low, pictures for the high-inflation countries largely differ. As shown in Figure 5, Laos is expected to further lessen the inflation rate and roll back to around 5 percent in 2024. However, the 2024 inflation levels of Mongolia (8.7 percent) and Myanmar (8.2 percent) are still likely to be haunted by high risks, even though the inflation rates for both nations have entered a continuous decline since 2022 (ADB, 2023). The governments of the high-inflation economies in East and Southeast Asia should remain rather vigilant in respect of the concurrent crises such as food price inflation, debt and the looming El Niño.

Conclusions

Food price inflation has been a global concern since 2022, particularly in densely populated regions like East and Southeast Asia. Rising food prices have raised concerns about food insecurity and systemic crises, affecting

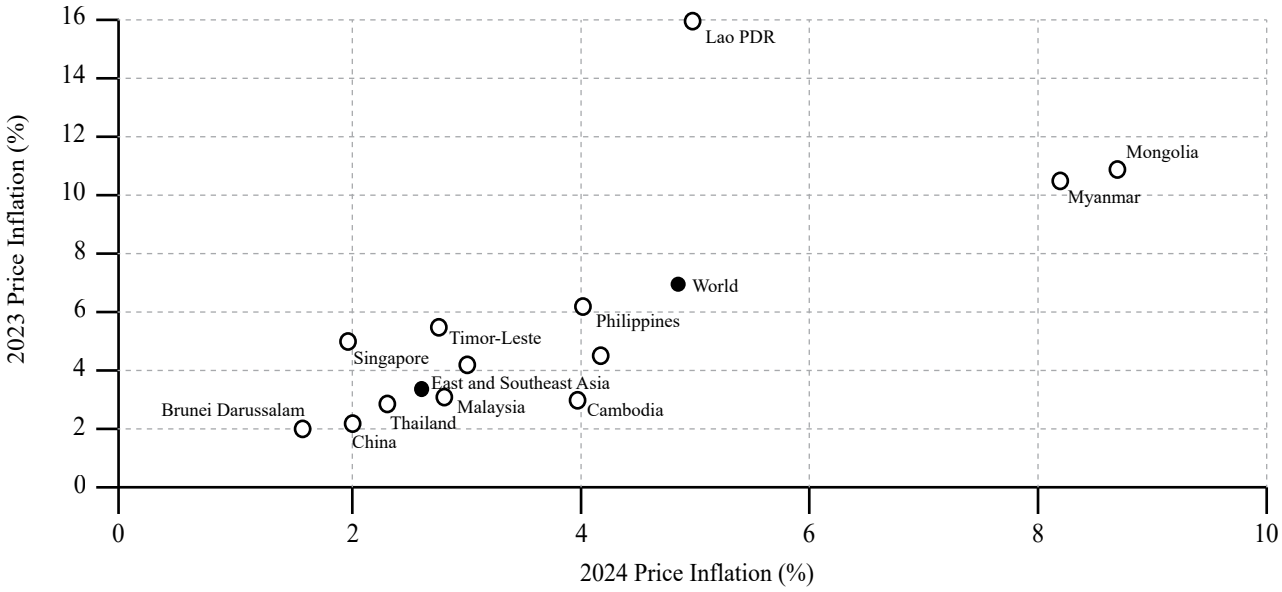

Figure 5: Forecasts Price Inflation Worldwide and in East and Southeast Asia, 2023-2024.
Source: ADB and IMF (2023) data.

consumers' purchasing power, especially the low-income and poor populations reliant on agriculture. Global economic recession, extreme weather events, geopolitical tensions, and their intertwined effects have been driving up food price inflation in East and Southeast Asia. Those forces have posed significant challenges to achieving a sustainable recovery.

The point has increasingly been emphasised that building resilience is essential for the fast recovery and sustainable development of food systems in the post-COVID-19 world (IFPRI, 2023; IMF, 2023). Policies should devote more to improving the responding mechanisms to food system crises and strengthening international cooperation. It is vital to assemble early-warning systems, prevention measures and targeted solutions in anticipation of food system crises, instead of responding only when situations arise and relying on short-term stimuli. Concerted efforts and innovative approaches (technologies) supported by authorities, private sectors and civil societies are in demand to bring SDGs within reach by 2030. So far, the relatively proactive food price trends in East and Southeast Asia can shed some light on elsewhere. First, countries should refrain from imposing additional export restrictions (whatever their form), which can worsen the picture of food price inflation and dampen food and nutrition security. Blockages in supply chains tend to be rather detrimental to the import-reliant countries and a population already left behind. Second, dialogues and cooperation can facilitate food system resilience when the region faces added burdens. For example, the Regional Comprehensive Economic Partnership (RCEP), institutionalised in 2022, is expected to propel regional integration and to allow ASEAN member states and its East Asian partners to better manage a complex array of food system crises and cultivate a resilient and sustainable future through the multilateral trading system.

While research on global food price inflation has progressed, there has remained a gap in terms of providing comprehensive knowledge about the sources and solutions specific to East and Southeast Asia. This article addresses the gap by conducting a political-economic analysis of the major forces driving recent food price inflation in the region. By reviewing targeted reactions across countries in East and Southeast Asia, the article also contributes to exploring proactive measures to enhance food system resilience during the post-COVID-19 "new normality". However, the mechanisms which drive food price inflation are complicated and cannot comprehensively be discussed in a single article. Future research could do more to compare the driving forces and positive measures implemented during multiple food price inflation crises. In this way, and building on the extended empirical evidence, countries in East and Southeast Asia as well as the rest of the world can be better prepared for future uncertainties.

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