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# GIRA Outlook 2024

*Relatively weak global meat demand outlook*

The prognosis for the 2023 global meat market was negative, with rampant cost inflation in almost all supply sectors facing a consumer Cost-of-Living crisis in full flow. However, in reality, the **meat market performed better than expected**, as inflation eased in most markets and as feed costs fell. In many countries, and in the poultry sector especially, producer profitability was restored, because consumer demand held up (albeit with downtrading) and there was production caution in anticipation of such a troubled supply and demand environment. There were **five dominant market characteristics which persist through into 2024:**

- **Cost of Living crisis was less bad than feared (but it persists):** in most markets food inflation and general inflation was severe, and has resulted in widespread downtrading …. but it started to decline more quickly than expected and it has not been the massive negative, on foodservice especially, as was feared. However, the effect of pressurised consumer discretionary income persists over a longer time period, especially amongst the more vulnerable: e.g. 25% of Filipinos can't afford meat … especially at the inflated prices for local fresh pork due to the ASF impact on their domestic production.
- **China disappoints:** its economic recovery from the zero-Covid policy has been tepid. Low economic growth, high unemployment and falling property prices combine to depress domestic consumer confidence. This is further aggravated by declining political relations with western nations with whom trade, both inward and outward, is suppressed. Chinese pork production has surged further, which has undermined both domestic pork prices and its import demand.
- **Grain costs started high, but fell through the year**, aided by big Brazilian production and later in the year by better than expected US and European harvests. Grain costs fell sharply from the record mid-2022 levels which followed the Russian invasion of Ukraine, and are still trending down. However, most other production costs remain high, and well above pre-pandemic levels: labour availability is still tight and labour costs are still increasing.
- **Market disequilibria of varied types,** but always with important implications:
  - *Ukraine is a distressed-seller* of grains, oilseed and poultry arising from the constrained access to export logistics due to the war. These commodities are extremely cheap within Ukraine, and in many of the markets to which they still have access: e.g. to Spain and Turkey. The flow of Ukrainian grain westward into neighbouring EU countries has undermined their grain markets and caused a backlash from local producers. Meantime Russia trades at discounted export prices for wheat, gas and oil, with those countries for which mutual trade bans are not becoming entrenched. India, Turkey, Egypt and China are all major trading partners with Russia … at discounted prices, and of course its domestic meat production industry has the benefit of low cost feedgrains.
  - *US, Canadian and European cattle and beef prices are at record levels*, whilst *Australian and South American prices have fallen* sharply. That reflects the tight supply in North America as persistent drought

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in cow calf country has taken its toll on feeder cattle supply, whilst a re-stocked Australian herd faced declining pastoral conditions, and packers exploited the abundant offer of slaughter cattle to force down cattle prices …. whilst Australian retail meat prices remained at high levels, attracting significant media attention. Widespread rainfall through late 2023 and early 2024, and amended forecasts indicating a La Nina weather pattern rather than El Nino have reversed the short term pastoral outlook and allowed ranchers to hold livestock.

- *European pig prices peaked* at record levels in mid-2023 whilst the *US and much of the rest of the world faced low producer prices* and mounting losses. The European price surge was due to the deep cuts to slaughterings in reaction to 18 months of dramatic farm losses preceding 1Q23, made worse by the outlook at that time of surging costs, weak demand and a vicious combination of rising environmental restrictions and hostile socio-politics.

Markets do not remain out of equilibrium for long, and as the graphs show, southern hemisphere cattle prices are recovering from their trough as northern hemisphere prices have slipped. Meanwhile European pig prices have fallen from their peak as the rate of production decline is stemmed: in part aided by lower feeding costs.

- **Threatening disease situation**, with HPAI and ASF both spreading around the world, with unpredictable, but generally dire consequences. Some countries, such as China, Thailand and Belarus report few or even no 2023 incidence of ASF, which is not credible … and make it hard for anyone to fathom the extent to which ASF undermines current and future production. Meantime some others, such as Sweden, recognise an outlier outbreak and immediately act to contain its spread extremely effectively. HPAI is expected to hit some commercial poultry flocks in Brazil during 1H24.

With the global meat demand outlook still suppressed by low economic growth conditions and inflation (albeit declining), and with such political uncertainty in the Middle East, Russia and China, it is not surprising that the byword in the industry is still of **cautious production growth for 2024**.

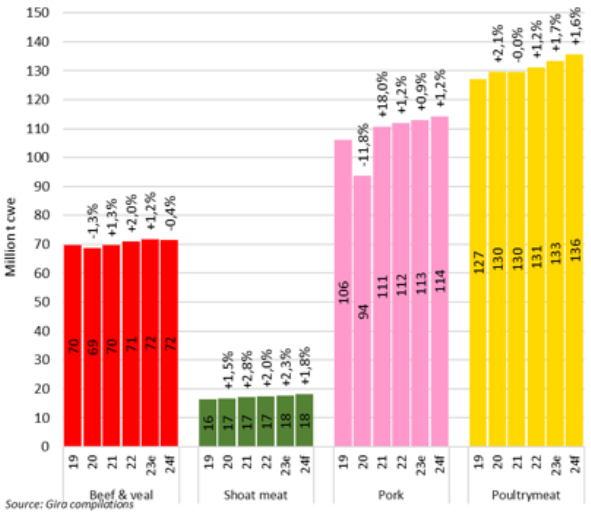
Beef supply remains tight, with global production forecast to fall in 2024, mainly due to North American (and European) declines not being offset by southern hemisphere growth. Sheepmeat will trend upward, with Asian growth making most of the gain. Pork supply will rise by less than 1%, as continued Asian recovery from ASF is offset by production cutbacks forced by widespread producer loss-making and rising environmental constraints. Poultry production growth will be greater at 1-2% … but that is lower than historic growth rates, reflecting these cautionary times, and the continued threat of HPAI.

**International trade in meat will also face another lacklustre year**, as China and the other important Asian markets continue to wallow with relatively weak domestic demand, which can't sustain the strong import market conditions that existed in the decade pre-Covid.

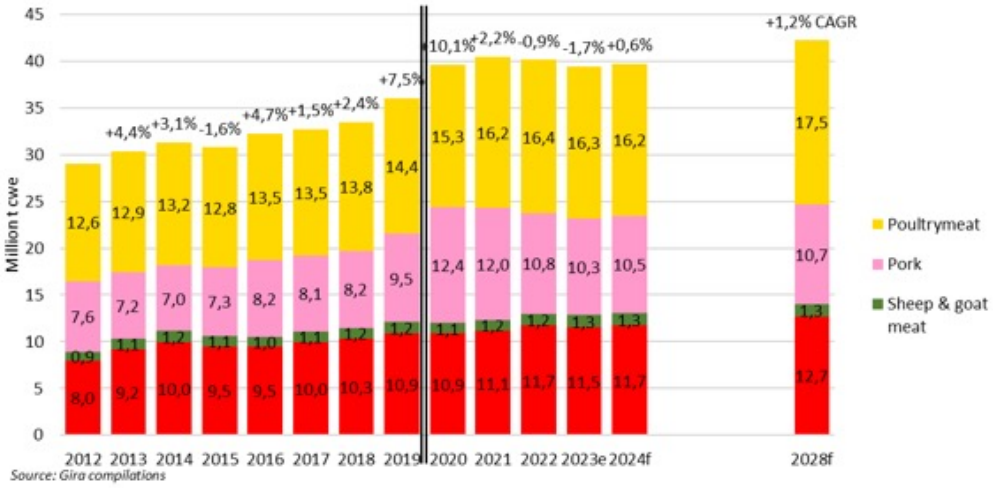
## Cattle Producer Price Comparisons
## Pig Producer Price Comparisons




## Global Meat Production by Species 2019-2024f



## International Trade Volume in Meat, by Species 2012-2024f, 2028f





Summarised from the Gira Meat Club, January 2024 edition.

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# How much benefit from a transformed food system?

*What is the scale of the fully costed economic burden of food and agriculture, and what might be the value of net benefits of a transformed food system?*

A recent report of the Food System Economics Commission tries to provide answers by estimating the environmental and health costs to society. ***The Economics of the Food System Transformation*** report (https://foodsystemeconomics.org/) was prepared by several economists, scientists, and influencers, funded by the Wellcome Trust, IKEA Foundation, Quadrature Climate Foundation, Norwegian Climate and Forest Initiative (NICFI), and The Rockefeller Foundation.

The overall global figure of costs of current food systems is estimated to be astronomically high, and it is argued that it is far larger than the market value that food systems contribute to global prosperity. While existing food systems feed a world population that has doubled since the 1970s, the unaccounted *costs* of the burdens they place on people and the planet are currently estimated at 15 trillion USD a year, equivalent to 12 percent of global GDP in 2020.

The aim of the report is to demonstrate that a transformed food system would incur lower costs and generate greater benefits both for the planet and society. The *net benefits* of such a transformation are estimated to be worth 5 to 10 trillion USD a year, equivalent to between 4 and 8 percent of global GDP in 2020. In addition, combined with transitions taking place outside the food sector, notably moving to low-emission energy, food system transformation can ensure that global warming stays well below 1.5 degrees centigrade at the end of this century.

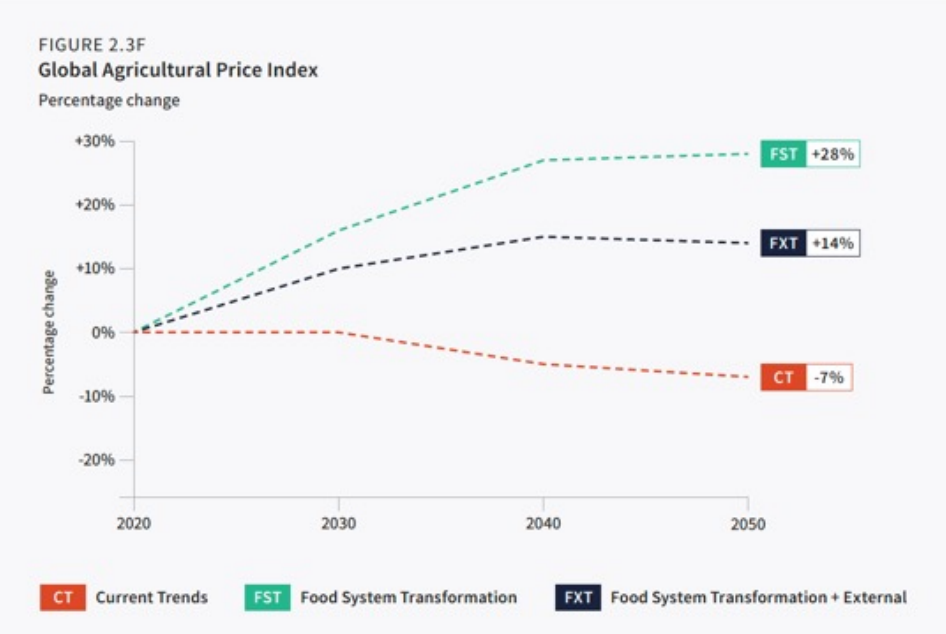
These unaccounted costs comprise:

- *Health costs* estimated at 11 trillion USD, measured as negative effects on labour productivity. They are due to the prevalence of non-communicable diseases, including diabetes, hypertension, and cancer which can be attributed to food. A large share of this burden is borne by people living with obesity, estimated at 770 million people and the productivity costs of undernutrition, affecting 735 million people, in a world population of 8 billion.
- *Environmental costs* estimated at 3 trillion USD a year reflect the negative impacts of current agricultural land use and food production practices. These practices are responsible for a third of global greenhouse gas emissions, including emissions arising from deforestation, and result in the net loss of over 6 million hectares of natural forest each year. Environmental costs also include the costs of biodiversity loss and environmental damage arising from nitrogen surplus, which leaches into waterways and pollutes the air.
- *Structural poverty costs* of food systems are due to the burden of food prices and the low incomes of many who work in food production. The incidence of poverty tends to be higher in agriculture than in the other segments of food systems.

The report models three scenarios to 2050: a business-as-usual continuation of current trends (CT); food system transformation (FST); and FST plus external changes, including green energy (FXT).

With the continuation of CT to 2050 food insecurity and undernutrition would leave 640 million people, including 121 million children, underweight in 2050, particularly in India, Southeast Asia, and Sub-Saharan Africa; and the global adoption of diets high in fats, sugar, salt, and ultra-processed foods would increase the number of obese people worldwide by 70 percent to an estimated 1.5 billion in 2050, or 15 percent of the expected global population. Per capita food waste would increase by 16 percent.

On the other hand, FST reflects all countries gradually adopting by 2050 a healthy reference diet as defined by the EAT-Lancet Commission (2019). This diet includes what are judged a healthy minimum food intake level for fruits, vegetables, soybeans and other legumes, and nuts, and a healthy maximum food intake level for sugar and vegetable oils, as well as red meat, poultry, eggs, and milk products. However, within these limits, country-specific dietary patterns can be quite diverse. FST reduces diet-related mortality from 12 million deaths per year attributable to poor diets in 2020 to 7.7 million in 2050 by decreasing rates of diseases such as of cardiovascular conditions and cancers. Compared to CT, 174 million lives are saved by the reduction in diet-related chronic diseases under FST. When accounting for the impacts of changing diets on both consumption and (indirectly) on land use, changing diets accounts for 70 percent of the benefits of transforming food systems. Under FST, agricultural commodity prices increase by almost 30 percent by 2050, which would likely significantly increase the prices consumers pay for food, compared to a fall of around 7 percent under




CT (see Figure above). Food price rises will be somewhat offset by rising incomes and changing consumption patterns.

At a global level, the costs of the food system transformation are estimated at only 0.2–0.4 percent of global GDP, affordable compared to the global benefits, but implementing the FST pathway worldwide will require investments and transfers averaging 500 billion USD each year between now and 2050, in particular those from richer to poorer countries.

What does the report say about livestock-sourced food? Overall, the conclusions are overwhelmingly unfavourable. It relies heavily on the EAT-Lancet reports and the UN Food Systems Summit in 2021 that "highlighted the need for comprehensive and sustainable pathways, rooted in scientific evidence, research, and principles, to guide a sustainable transformation of food systems ». The report argues that "there is strong consensus on the recommended direction of change in diets", which is contestable (as has been pointed out by IMS). The global increase in meat consumption under CT is judged incompatible with both the 1.5°C climate target and the land targets agreed in the 2023 meeting of the Convention on Biodiversity.

While over- and under-consumption of animal-sourced foods now occur across high-, medium- and low-income regions, on average, high- and middle-income regions under FST would need to reduce their per capita intake of animal-sourced food by 68 percent and 62 percent respectively from 2020 to 2050, and increase their intake of fruits, nuts, vegetables, and legumes. In total, low-income regions would see a 33 percent aggregate decline in the intake of animal-sourced foods under FST even though their intake by currently undernourished groups in those regions should increase to improve health. Under FST the shift away from animal-sourced foods generates a 50 percent drop in global livestock production, reducing employment in that sector.

The report recognizes two important contributors to realising net benefits arising from livestock production: livestock intensification, especially in low-income countries, which enhances feed-to-product conversion efficiency; and (more generally) greater trade integration, along with diversification of trade routes, to improve connections between regions with food surpluses and deficits. This interconnection strengthens food system resilience to shocks, helping to prevent loss of lives during extreme weather events and crop failures.

The methodology involves attaching monetary values to the scenario outcomes related to health, the environment and income growth. Health costs are calculated by estimating the extent of labour productivity lost to poor diets, driven by the high incidence of obesity and the high burden of chronic health conditions. The impacts of malnutrition are not captured fully as the impacts of other health conditions linked to food, such as maternal mortality due to anaemia, are not included in these estimates.

Environmental costs are the negative effects of today's food systems on ecosystems and climate and include the costs of current agricultural land use and food production practices. Environmental costs also include the costs of biodiversity loss and environmental damage caused by nitrogen surplus. Poverty costs arise from food systems' contribution to structural poverty through the cost of food. Such costs are estimated as the income gap from the poverty line – that is the amount needed to bring all poor people to the USD 3.20 per person per day.

Efforts to account for and "internalise" these negative and positive externalities have long occupied many economists and scientists. While such efforts offer valuable information to stakeholders and policy makers, there are formidable conceptual, measurement and aggregation challenges to address. Assumptions must be made as to values when there are no market prices both for negative and positive externalities, as well as the discount rate to apply when expressing future values in present terms. In a situation where prices are adjusted (for example a tax on foods deemed unhealthy) there would be both demand and supply responses which need to be factored in. A relevant case in point is in reducing food waste: should food waste be eliminated, there would be reduced demand for production so the net effect might be relatively small. If adopting healthy diets leads to fewer earlier deaths, then the gains from more active working lives and lower medical costs need (from a macroeconomic perspective) to be weighed against the costs of extra resources used by more non-active retirees. These types of study also need, crucially, to take account of the influence of confounding factors (diet, exercise, lifestyle, smoking, etc.) to establish cause and effect, and measure externalities for *all* sectors to gauge relative importance.

The report outlines the sorts of measures that governments can take such as taxing and subsidising; regulations and controls; research and development; information, persuasion, and education to incentivise changing behaviours. The report illustrates through case studies in various countries how different measures have been effective, but the political, economic, and social challenge to achieve the scale of global change proposed in the report is formidable – not least because the changes proposed rest on highly contested assumptions as to what constitutes a healthy diet.

**Wilfrid Legg, Consultant**

**Note from the editor:** A follow-up analysis on the nutrition aspects (methodology and evidence used or conveniently omitted!) by our Human Nutrition and Health Committee will be published in a future newsletter.

# Fires in Cattle Country

*No one expects winter to be a fire season, especially on the cold prairie, but here it is.*

It may be the latter portion of winter, but wildfires are destroying thousands of acres in prime Texas cattle country. A fire in the Texas Panhandle/ High Plains region, called the Smokehouse Creek fire, that began on Monday, 26 Feb., had become, by Thursday the 29th, the largest wildfire in Texas history, consuming more than 1 million acres (400,000 hectares) by the morning of the 29th with containment at just three per cent.

The fire was described by reporters as destroying the equivalent of 150 football fields (about 200 acres, or 80 hectares) per *minute* and had already burned more acreage than all the wildfires in Texas in 2023 combined.

According to the *New York Times*, "Ranchers, some of whom battled the flames on their own with pickups transformed into makeshift fire trucks, have watched as the grasslands that their cattle rely on for food were transformed into a rolling blackened expanse. One rancher, Jeff Chisum, described walking with surviving calves past the charred remains of adult cows scattered along a road.

"'It's hard to watch,' said Mr. Chisum, whose ranch north of the town of Pampa and directly in the path of the fire ignited on Monday. Nearly all of his 30,000-acre ranch was burned. 'We're in love with the animals and the country, and whenever something like this comes through and destroys it all, it's hard to swallow.'"

As reported by *Progressive Farmer*, "Texas Gov. Greg

Abbott issued a disaster declaration for 60 counties in his state as widespread wildfires destroyed homes and structures and led to a mix of mandatory and voluntary evacuation orders for several towns on Tuesday. The wildfires also have spread into Oklahoma. Various highways have been closed in areas affected by fires, and county emergency officials worked into the night to advise of evacuation routes, emergency shelters or even telling people to shelter in place. In some communities, such as in Canadian, Texas, hospital patients as well as people from residential care facilities had to be evacuated."

## What's the Cause?

Huge wildfires have, unfortunately, become commonplace in the western U.S., with entire towns sometimes becoming engulfed in flames. The causes driving these increasingly large conflagrations range from periods of sustained drought to mismanagement of forests to the general threat of climate change, which is altering atmospheric conditions and millennia-old weather patterns.

Range fires such as what are burning today in Texas and the High Plains also have a long history, but gigantic range fires in the winter months is something new. Moving tens of thousands of head of livestock, not to mention people, out of harm's way in changeable winter weather is a huge challenge. Across the region, outdoor rodeo and event arenas have been opened to keep livestock, horses, and pets safe from fire, but so far the need is far greater than the supply. As of 29 Feb., approximately 5,000 head of cattle had been killed in the Smokehouse Creek fire alone.

Adding to the worries is the fact that about 86 per cent of Texas cattle production is concentrated in the Panhandle region, according to the news network CNN. Texas Agriculture Commissioner Sid Miller said on the 29th that the state does not know exactly how many cattle have died, but "the number is going to be very large. We've lost probably tens of thousands of head of livestock, cattle mainly." This loss comes on top of the fact that the national cattle herd is at its lowest level in more than seven decades as of Jan. 1, after drought reduced the amount of pastureland available for grazing.

A county extension agent in the Panhandle's Hemphill County, Andy Holloway, called the livestock losses "a terrible tragedy." "We've lost a lot of acres, a lot of cattle, and a lot of homes. So far, we have not heard of any human deaths. But property loss, including cattle, is massive," Holloway told *Farm Progress*. He estimated that by the time the Smokehouse Creek first is finally under control, "thousands of cattle will be lost to this massive wildfire."

While livestock producers have been at the mercy of weather and natural disasters since time immemorial, the inexorable impact of climate change is causing producers to re-think age-old patterns and to adapt to often unprecedented conditions.

## New Approaches – and Better Beef?

Regenerative grazing is one such new approach. "Regenerative grazing is grazing in a manner that allows us to be able to tap into the four ecosystem processes: to repair, rebuild, revitalize and restore ecosystem function," described Dr. Allen Williams, a sixth-generation family farmer, for *The Cattle Site*. "It starts with life beneath the soil and then translates to life above. I'm thinking about how I am feeding the microbes underneath my feet because they are critically important to me and my success as a farmer or rancher. Then, I'm thinking about my plants: am I grazing in a way that's going to benefit my plants and in a way that is going to allow them to be able to recover more rapidly from the grazing impact to have optimum nutrient cycling and facilitate the water cycle through those plants while maximizing photosynthetic capture?"

There are claims that pastures that have been managed regeneratively not only result in cattle that produce more nutrient-dense beef, but that these pastures sequester far more carbon than other livestock-supporting grasslands, thus potentially becoming an important factor in controlling carbon emissions that contribute to climate change. These claims are the subject of dispute, however.

Jason Rowntree, a researcher at Michigan State University, told the *New York Times* in 2022 that while regenerative grazing "creates a cascade of good things," his and others' research has shown the amount of carbon sequestered can vary greatly by region, affected in large part by the amount of rainfall and soil nitrogen available. "Based on the amounts of these where you are, the ability to build carbon can change dramatically," he said. "It needs to be considered in a localized context."

But "localized context" is precisely what cattle producers in the Texas Panhandle are dealing with right now to an extraordinary degree. As flames surge across cattle lands, the question for meat producers in western U.S. states is, What has to change to prevent these disasters in the future and thus protect the industry?

**Steve Bjerklie, Contributing Editor, *Meat & Poultry* Magazine; correspondent, *The Economist***