

An invitation to subscribe to

"Covid-19: Global Crisis Analysis"

The Black Swan Event of a Generation

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1. Introduction



Covid-19' massive short term disruption... and long term economic impact

Covid-19 started in Wuhan on 10th December 2019, but didn't make global consciousness until mid-January 2020. The Chinese lock-down hit the front pages across the world on the 23rd January (just 60 days ago) as 10 cities were shut down, just as China's vast population set about its annual migration for the Chinese New Year holiday. The disruption and fear has now become global, touching every aspect of business and social life:

- The initial phase saw Covid-19 rip through China; by the 27th January only one province hadn't reported a case. The Chinese government acted quickly following the initial lock-downs, extending the New Year holiday, banning movements, and keeping people isolated. This led to considerable disruption to both manufacturing and the food supply chain...
- China is winning the war, at the very least this phase of it. The country is returning to some normality two months on from the lock-down. But what has been the cost to the food industry, and what price will be paid over the coming months?
- Whilst cases had been appearing around the world throughout late January and early February, no serious development happened....
 - But in late February that markedly changed firstly with South Korea, and then it became apparent that there was a developing situation in the EU... a crisis that has now enveloped most of the EU, at a level arguably beyond that seen in China.
- The rest of the world is quickly following suit, with severe breakdowns in North America, and SE Asia now appearing to be hit by a second wave.

The food industries of the world are facing challenges of an unimaginable scale only three months ago.

- There are lessons to be learned, challenges to be shared, and a process of trying to understand how the global industry and markets are reacting.
- At a professional level we are all facing similar challenges. Industry must go through a series of steps:
 - Breakdown \rightarrow Handling the direct impact \rightarrow Rebuilding in a fragile consumer market
- In this crisis analysis Gira will put the first markers down, look for the early lessons and build a base of insight for us all to move forward from.
- What does it mean for your business today?





Provide scenarios for meat & dairy in this new and evolving crisis

The objective of this report is to provide clear insight into the impact of the evolving Covid-19 situation, both its roots in China and its step change into a Global crisis, on the meat and dairy supply chains and the key components of it. Its focus is to make you better informed, aiding informed decision making at a time when most in the industry are focused only on the immediate challenge...

The focus is to allow those working in the global food supply chain to better understand the impact that Covid-19 is having on their businesses today; to learn from the experiences of markets already further down the road, and to help plan the inevitable rebuilding process that will eventually follow. There will be specific focused chapters on the 2 key business sectors of Meat and Dairy.

In order to achieve this, the report lays out:

- China Details the Covid-19 impact on meat and dairy production, supply chains and demand in China and crucially how has it evolved over the last 3 months.
 - The consumer reaction from the downturn in foodservice to the development of e-commerce.
 - The impact at farm and producer level staffing issues, supply chain challenges, demand shifts.
 - Trade disruptions, backlogs and reefer challenges, and how are these being resolved as the market normalises.
 - Most importantly, what lessons, both good and bad are there for the rest of the world?
- The evolving situation in the world outside of China; how are the meat and dairy industries standing up to the challenges now? Similarities and differences? Where are the different markets in the process...
 - Special focus on the EU, and the US; covering foodservice impact, price direction, and demand hit.
 - Profiles on Brazil (meat export focus), New Zealand (dairy export focus), and Japan (demand focus).
 - Lessons from the markets: can a time line be established, and to what extent can we start to read ahead?
- Implications for the year ahead; given a recovery process, how will the global industry react through 2020 and 2021.
 - Lessons from China. What can we see in a market already in the recovery phase, examining the different impact points and how these might influence the process over the next 12 months.
 - Adjustments will be made to our recent GDC and GMC forecasts for data in 2020 and 2021 across the key markets covered for the headline figures to provide a base case scenario.
 - Given the fluidity of the situation, scenario analysis will be conducted to provide alternative development paths with downside and upside cases modelled.
 - Logistics challenges, reefer availability challenges, backlogs in ports, full cold stores and staff shortages.

Today the global meat and dairy industries are struggling to understand the scale of the issue and its implications across all sectors of their supply chains. All the answers are not there yet and the situation will continue to evolve. To help clarify the situation Gira wants to:

- Provided a reference point at an uncertain time.
- Link the various implications and issues back to the root cause.
- Carry out a strategic assessment of the future impact.

Experienced core team focused on the crisis impact: now and in the short term

The work on this Gira 'Crisis-Impact' report will be carried out in three interconnected tasks.

- 1. Focused desk research on key developments, in the context of Gira's existing insight and data from the Gira Meat Club, Gira Asia Meat Club and the Gira Dairy Club, updated with the latest data to provide an accurate description of what has happened since the onset of the Covid-19 crisis.
 - Significant update of Gira's view of the current situation in China, based on the latest numbers, and Gira's understanding of the forces at play in the market. Production disruption, staff shortages, supply chain chaos, and the recovery process...
 - Updated trade insight, based on available data.

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- Update of the situation across the key global markets; how is industry responding to a challenge that nobody had contingency plan for.
- 2. Selective interview program with key industry players.
 - Companies across the global supply chain, from processors, traders, retailers... and those with insight to the government.
 - What is really going on in China, beyond the data.
 - What challenges is the global industry facing, and how are they reacting.
 - The international field; producers, industry associations, exporters and investors. What is the global response going to be?
 - How are companies planning for a post Covid-19 market?
 - How badly damaged is consumer spending going to be?
- 3. Scenario analysis: the 'think tank' using Gira's decades of experience, and the insight and numbers gleaned in steps 1 and 2, what scenarios are really plausible.
 - Revised 2020f. Selective scenarios. The impact on China, the EU and US on both meat and dairy. Gira will form a view of how the world might look in the aftermath of this catastrophe. We will look to lay out the markers that will help you navigate the world that is to come.

Meat and dairy combined? - Whilst it is understood that very few of Gira's client base are heavily involved in both the meat and dairy sectors, the challenges faced by these industries share many parallels, which are relevant to each other. So we intend to combine resources of our team and international contacts to provide an informative and tightly written report that will provide a solid sounding board based on what we know of the situation at the time of writing...

Gira will utilise a small core team of experienced consultants to focus on this dynamic and fast changing situation. They will call on selective assistance from our global network, to gather the most up-to-date insight on selected issues and from selected contacts.

The Deliverable:

The main report will be delivered in English in a searchable PDF format. It will be between 50-60 pages in length.

It will be accompanied by 2 webinars:

- 1. Report release webinar, 2-hours in length. Time to discuss and explain the key findings with Gira's leading team.
- 2. A review webinar will be released a month later to examine how the situation is developing and how it is varying form the hypotheses in the report.
- The subscription also includes a 1 hour direct call with a member of our key team, allowing you to discuss the impact on your business in private.



Focused report, with webinar on release and a follow-up webinar

Executive Summary

2 pages of the key factors for operators throughout the value chain, and investors. Strategic implications of this unfolding crisis

Current Covid-19 Situation and Key Assumptions

What impact is it having on the food industry today + Key macro-economic assumptions

The Chinese Situation and Outlook – the first country out of the initial phase of Covid-19

How bad is it really in China today, and how is the recovery process working. What is happening on the ground, detailing:

- The situation in the supply chain today, and the impact of Covid-19 on the market over the last three months.
- Extent of the Chinese production impact: price reaction, the demand shift within food. The immediate implications.
- The Chinese Covid-19 time line, and how demand is shifting + Lessons to be learned from China.

Impact in Key Global Markets:

Short report on the EU and US markets, with profiles on Brazil (meat focus), New Zealand (dairy focus), and Japan

- The *immediate* short-term demand impact with a particular focus on sales channel migration; longer term impacts through the remainder of 2020 and 2021 stemming from changes in demand and income will be modelled.
- The early stage situation in the supply chain, current challenges. Examining the impact on production, prices and trade.
- Potential corporate challenges and opportunities in the coming 18 months will be explored

The relevant Chapter for your business focus:	 Meat: Implications for the Livestock and meat sector The specific supply chain challenges, and demand reactions for the meat industry: Can we learn from China's progress? Different reactions in the key markets? The Foodservice hole? Impact of demand shifts on price in different markets and meats? 	
Each client gets only the chapter relevant to their sector, keeping the focus on what you need to know now.	 Dairy: Implications for dairy processors The specific supply chain challenges, and demand reactions for the dairy industry: Can we learn form China's progress? Oversupply of raw milk and the consequences. What next? Impact of demand shifts on price in different markets and different commodities? Supply imbalances, and changes to production through the crisis, and the impact longer term. 	



Example Pages

ASF EU

Detail packed pages, in an easily digestible format

NAND DIE 0 20 IS

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Asian ASF Crisis Study 2019

4th October 2019

contact@girafood.com





The "family farm" gets bigger

- As farms consolidate, the definition of a "family farm" is expanding. Some "family farms" now run as many as 16,000 hd, the largest 25,000 hd.
- In Sept 2019 MARA pledged to support development of family farms to fight ASF, defining family farms as farms that provide large-scale, standardized and intensive agricultural production and management
- MARA said it will support (but not necessarily finance directly) the construction of chilled storage and other infrastructure to boost family farms
- The government is planning to formulate preferential fiscal and tax policies to boost family farms, and also boost training and agricultural extension services
- · These farms are usually managed by one family, but consolidate land contributed by neighbours and extended family members, many of whom have moved to urban areas for employment but retain a share in the operation.

ASF Crisis Study 2019

4. Other Asian Markets ASF will accelera 5. The Global Trade Response for 2019 6. The Global Trade Reaction Beyond 2019

1. Executive Summary

The Chinese Situation and Outlook

2. ASF Situation

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Second thoughts about risk

- The largest farm category 10,000 head and up is also the fastest growing. Huge new farms supporting 25,000 sows have been built, and more are under
- But some in the industry say that with ASF now endemic, the big units have become too risky and it is better to raise pigs in smaller facilities, or at least compartmentalize the facilities
- Many family farms in the 500-9.999 categories have become contract growers for the big breeding and production companies like Wens and New Hope

The backvard farm fades away

- Small farmers cannot afford good biosecurity and cannot provide the standard pig that the slaughter industry now demands
- They also lack the financial strength to survive price volatility

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Most cases are in Eastern Europe, but Belgium proves big jumps are possible

ASF entered the EU via Lithuania in January 2014 from Russia. It has since spread to 10 countries, mainly in Eastern EU.

- Cases of ASF are very slowly spreading west, with wild boars being the major vector. The majority of EU cases are wild boar, which roam freely across most of the EU. Cases on farms have been limited to Eastern EU countries (so far), and are largely on
- smaller farms with weaker biosecurity. There have been cases on large farms, usually linked to lapses in biosecurity: normally people or vehicles bringing ASF on farm. EU countries with ASE 18th September 2019
- · Belgium, Lithuania, Latvia, Estonia, Poland, Slovakia, Bulgaria, Romania, and Hungary
- Key impact so far on the EU commercial pig industry: Direct impact from significant financial losses on farm due to mortality and empty
- farms following infection in in eastern Europe. Secondary impact from trade bans, which are financially more sever. 2 types:
- Regional trade ban imposed on a region with either wild or domestic case of ASF. Can't export pork to any market. National trade ban - more severe, no export from the infected country to select export
 - markets which do not recognise OIE regionalisation.
- Little or no impact on local demand for park in infected countries, where it is understood to be a pig specific problem.
- Limited success in eliminating ASF in Europe:
- · Very limited, large farms are normally successfully cleaned with rigour and time. Wild boar are more problematic! Czech Republic has become clean after concerted and systematic culling of wild boar... Belgium is making progress with a similar program.

Outlook:

Report contents

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- ASF spreads west at a slow rate. Expected to reach Germany without further intervention ... and to continue its onward spread through a combination of wild boar movements and human carelessness.
- Risk of Belgian 'outlier' infecting France and or Germany is still high.
- Another jump due to discarded infected meat from Eastern EU in clean market. The biggest fear in the EU is Germany getting ASF, and as a result being banned from
- exports to China. This would turn a large volume of meat back on to the intra-EU market, crashing the EU pig price. The fear of ASF spread is a major barrier to investment in pigs in the EU. © Gira 2019

ASF Crisis Study 2019

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Well developed global export strategy for Brazilian Chicken

- Strong exports to MENA and Japan Trade to the EU is primarily in breast, but has dwindled in volume, and prices ae not as strong as they once where.
- Brazils strategy for China focuses on frozen parts. Mainly feet, wing tips and legs Volumes have grown steadily in recent years, and the market has overtaken Saudi Arabia as the leading volume (although values are higher to Saudi).
- Brazil has had issues with China in recent years, with Anti Dumping tariffs being imposed on the leading Brazilian export companies to China in Feb 2019. Tariffs varied by company.
- · After a very brief period of implementation, the tariffs were lifted, and replaced with a floor price, which importers must adhere to, or face the reintroduction of tariffs.

Brazilian poultry exports boom in 2019:

- 1H2019 vs 1H2018, Brazil total export volume increased 175,000 t pw.
- · Over the same period, export volume to China increased 51,000 t pw.
- This indicates that whilst China is strong, Brazil is also making gains to other markets, notably Japan
- It is also notable that if prices rose sharply in China, then Brazil could deflect large volumes of poultry into the market from its lower value export markets, notably South Africa.

The outlook for Brazilian Chicken to China is strong over the remainder of 2019, and throughout the next 2-3 years. After this it is likely to face more controls from the Chines government as domestic production recovers.



EU ASF – Cases Jan'19 – Sept'19







China's Share in Brazilian Poultry Exports - 2018 Full Year and 2019 First Half



ASF Crisis Study 2019

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A focused, timely and inexpensive, objective update on a crucial subject

Timing

Gira's emphasis is on speed: to get an educated opinion of the situation and outlook to core clients as soon as possible. The study will be released on the 17th April 2020 following the first webinar live at 13 00 CET on the 17th April 2020 and available as a recording for 2 weeks after. The second webinar will follow 4 weeks after the first, with exact timings to be confirmed a week before it.

Subscription

The subscription to the crisis-impact programme is:

- Standard subscription costs Euros 6,000 (before any applicable taxes).
- Gira Members subscription costs Euros 4,000 (reflecting a 33% discount), this includes Gira Meat Club, Gira Asia Meat Club and Gira Dairy Club members .

We understand that this is a difficult time for all in the food supply chain, and have priced the study at a relatively minimal level for clients, but where it will help cover our core research costs. We hope you understand this position.

Payment will be requested as follows: 100% on signing of the contract.

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Some of Gira's Animal Protein & Dairy Clients



Abbott Laboratories	Dairygold	Huishan Dairy	Nutreco
ABF	Danish Crown	IFC (World Bank)	Paccor
ABP	Dantrade (Danone)	IMS	Pfiver
Agropur	DMK	INAC	Rabobank
Agrial/Eurial	DSM	Interbev	Rusagro
ALIC	DuPont	JAPFA	Rupp
Alpma	Emmi	JBS	Savushkin
Arla Foods	Elanco	Kemin	Sealed Air
Aviagen	EU Commission	Kerry	Smithfield
Bell	Eucolait	Lactalis	Sodiaal
BordBia	Eurial	Laïta	TetraPak
BRF	Fedegan	Land O'Lakes	TVI
Bunge	Ferrero	Mondelez	Tyson
Canada Pork	FIT	Meggle	Unilever
Cargill	Fonterra	Minerva	USDEC
Chr Hansen	Friesland Campina	MLA	USMEF
CNIEL	GEA	Mueller	Valio
Cobb	Glanbia	Multivac	Vion
CP Foods	HK Scan	National Pork Board (US)	VLAM
Coveris	Hilton Food Group	Nestlé	Yili

In addition to a number of retailers, caterers, banks and Investment Funds



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