

**THE SUSTAINABILITY  
OF EU INVESTMENTS IN THE  
CHINESE LIVESTOCK SECTOR  
THE ROLE OF ANIMAL WELFARE**

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Based on research carried out by Ecostorm in September 2021

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# EXECUTIVE SUMMARY

Although European investors have had a presence in China's livestock industry, to varying degrees, for decades, in recent years barriers to entry have begun to fall. The Chinese government intends to expand domestic production and reduce dependency on imports and has made it easier for foreign companies to invest. The new Chinese legislation on foreign investment (FIL) has encouraged a fresh wave of investment from European banks, finance companies and sovereign wealth funds. In 2020 the EU and China also concluded a Comprehensive Agreement on Investment (CAI), although the ratification of the Agreement is currently on hold.

## KEY FINDINGS

An analysis of available financial data shows that EU and EFTA investors own shares worth around €4.5 billion (USD5.3bn) across four of the largest Chinese meat and dairy companies: WH Group, Muyuan, Mengniu and Yili. Around 71% of this is held by 15 European investors. The largest investors have put hundreds of millions of Euros into single companies but some are developing breadth across their portfolios. For instance, UBS, Blackrock Asset Management Ireland, Deutsche Bank, Vanguard Group Ireland, and Credit Agricole hold stocks in all four companies. Our research shows that several other EU investors have also used the new Chinese investment framework to increase their shareholding:

- AVGP, the holding company of Mondrian Investment Partners, increased its ownership of WH Group by 34%. It is now the second largest shareholder of the company, with shares worth €642 million (USD758m).
- JP Morgan Asset Management Europe (Luxembourg) increased its ownership of Yili by 51% and now owns stocks worth €167 million (USD197m).
- Allianz SE increased its stake in Muyuan from just 13,000 shares to around 17 million, which are today worth €103 million (USD122m).
- BNP Paribas increased its ownership of Mengniu by more than 3,500% to 16 million shares currently worth €76 million (USD90m).

In recent years, European livestock giants like Tonnies, Germany's leading meat company,- and Danone, whose brands include Actimel, Oykos, Activia and Alpro,- have also entered the Chinese market. Tonnies, whose core

business is pork and beef processing, spent €500 million (USD590m) in 2019 on a slaughter and butchering centre in the Sichuan region, initially for two million pigs a year (rising to six million),<sup>1</sup> while Danone earned almost €1 billion (USD1.98bn) in profits from the 2021 sale of its stake in Chinese dairy company Mengniu.<sup>2</sup> Another notable entrant to the Chinese meat and dairy sector was the Norwegian sovereign wealth fund, which holds the world's biggest stock portfolio. Prior to the introduction by China of new foreign investment law, the fund held no stocks in Mengniu, Yili, Muyuan or WH Group, but 18 months later, it owned shares worth approximately €437 million (USD516m).

## A PERFECT STORM

China offers many attractive prospects for investors in animal agriculture. Its commitment to becoming self-sufficient – and if possible a surplus producer – in animal protein means there is substantial opportunity for growth. At the same time, the barriers to investment in terms of Environmental, Social and Governance (ESG) requirements are relatively low, and the country has yet to implement comprehensive regulations on farmed animal welfare.

The business opportunities may seem eye-watering, but **a perfect storm of economic, cultural and regulatory issues that accompany EU investments into the Chinese livestock sector could lead to misery for millions of animals.** China's livestock sector is growing in the direction of greater intensification and automation, and the welfare problems associated with intensive livestock are well known and increase with scale. In addition to being detrimental to animal welfare, intensive industrial farming has a very negative impact on the environment (air, water and ground pollution), biodiversity (as related land-use changes often lead to habitat loss), public health (as intensive conditions tend to favour the spread of zoonoses and antimicrobial resistance) and climate change (as animals emit greenhouse gases, and also because of the related deforestation). Intensive farming also leads to huge volumes of waste (i.e. high level of water use, animal remains, excrement, water and soil pollution).

<sup>1</sup> <https://bit.ly/3GNSSOh>

<sup>2</sup> <https://bit.ly/3221LpX>

## OUR CALLS

Without careful management and awareness of the welfare concerns associated with intensification and automation - and in the absence of further regulation in China - **EU investments risk transforming China into a living laboratory for futuristic experiments in animal husbandry, with consequences that could affect the entire planet.** To prevent EU investments from further fuelling unsustainable practices, such as intensive livestock farming, Eurogroup for Animals calls on the European Commission, the European Parliament and EU Member States to adopt the following measures:

- **EU new rules on due diligence should include animal welfare within their scope.** In the meantime, European investors should perform their due diligence and ensure that ESG criteria encompass animal welfare alongside other environmental and health concerns, and take their investment decisions based on these.
- The EU and China should continue their work on agreed terms for responsible investment,<sup>3</sup> and they should take animal welfare into account when defining responsible investments in livestock farming.
- The 2020 EU regulation on the establishment of a framework to facilitate sustainable investment,<sup>4</sup> which will take effect in phases from 1 January 2022, is a significant development in sustainable finance, creating a classification system for environmentally sustainable economic activities. To date, it has not yet addressed the case of agriculture. **Livestock farming being a significant contributor to environmental degradation and climate change, the EU should make sure that industrial farming cannot be considered as a sustainable investment under this new EU Green Taxonomy.**
- The EU and China should integrate in their Comprehensive Agreement on Investments (CAI) a mechanism to address situations where investments favoured under the agreement hinder the needed transition towards more sustainable and resilient societies.
- The EU should promote the inclusion of animal welfare in the concepts of Responsible Business Conduct (RBC) / Corporate Social Responsibility (CSR) at the international level, for instance if the OECD guidelines for Multinational Enterprises were to be reviewed.
- **The EU and China should establish a cooperation mechanism on animal welfare,** either under the working group on sustainable food systems announced at the occasion of the latest EU-China Agricultural Dialogue, or as a standalone project.
- The EU should foster a reform of the ESG principles of multilateral development banks where the EU and/or its Member States have shares, to include adequate animal welfare standards. In banks where the EU and/or its Member States represent the majority of shareholders, the EU should push for the ESG principles to include the respect of EU-equivalent animal welfare standards – as is the case with the European Bank for Reconstruction and Development (EBRD). Such standards should become a basis for the evaluation of projects within the EU and globally, both in terms of direct and intermediate funding.

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<sup>3</sup> <https://bit.ly/3DV51B5>

<sup>4</sup> <https://bit.ly/3DY7udH>

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# INTRODUCTION

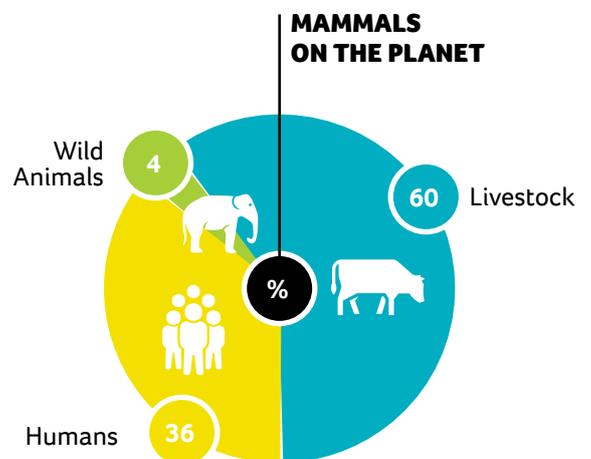


In December 2020, the President of the European Commission, Ursula von der Leyen, launched the European Green Deal, which aims to transform the EU into a “modern, resource-efficient and competitive economy, ensuring no net emissions of greenhouse gases by 2050, economic growth decoupled from resource use, and no person and no place left behind”. This ambitious plan led to the adoption of a new EU Food Strategy – “From Farm to Fork” – which set the course for an ambitious revision of the EU animal welfare legislation.

In parallel, discussions also grew around the **sustainability and resilience of global value chains**, and therefore sustainable corporate governance. Money is an important driver of societal transformation and it is important to ensure that investments flow in the right direction. The EU is thus looking at upgrading its rules in this field, by adopting among other things new rules on due diligence and on extra-financial reporting. The EU has also adopted a new regulation on sustainable finance taxonomy, but its application to the livestock sector remains uncertain.

**Intensive, high yield farming** – which prioritises feed efficiency and rapid weight gain – has become a **standard practice in livestock farming**. Since 1961, it has driven up global meat, egg and milk production by 140%. Today, as

a result, a staggering **60% of all mammals on the planet (mainly cattle and pigs) are livestock, while just 36% are human, and just 4% are wild animals.**<sup>5</sup> This sector has a massive detrimental impact not only on animals, but also on the environment, the climate and public health. Including industrial farming within the scope of sustainable activities would be contrary to the objectives of the taxonomy legislation.



<sup>5</sup> <https://bit.ly/3J0kC6b>

Throughout Asia, production and consumption of animal products has been rising sharply. **China**, which is home to the world's largest national population (1.4 billion as of 2019), far exceeds other Asian nations in terms of increased meat consumption. Since 1990, per capita growth in consumption in China has increased by 335% making it **the world's largest single market for meat**.

Spurred on by demand, China's livestock industries have undergone rapid and profound transformations in the last few decades.<sup>6</sup> Its **dairy, pork and poultry sectors** are globally significant producers dominated by **large corporate companies** with abundant capital and technology and growing fast. China has also signalled its intention to pursue even greater growth and development in this area in the coming decades, as well as a desire for greater self-sufficiency. To aid this agricultural transition, it has begun to open its doors to **foreign investment, notably coming from the EU**.

New investors may see only opportunities, with a relatively low bar to entry in terms of restrictions and regulations. But from the perspectives of animal welfare, environment, human health and economic risk there are multiple challenges to address to make sure these investment flows are sustainable.

This report analyses the investments of European companies into four of China's largest meat and dairy companies. As China has not yet developed mandatory farmed animal welfare standards and in the **absence of any sustainability or animal welfare-related rules concerning EU-China investments**, these investments are likely to further fuel activities that are detrimental not only to the animals, but also to the planet and humanity. Such an expansion of the Chinese livestock production sector brings multiple risks, for China, but also for the rest of the planet.

The report will first provide details on China's investment framework. It will then explore in some depth figures on European (EU and EFTA) investments flowing into China's meat and dairy sectors, and consider the reasons underlying the increase in such investments. It will also present figures for the investments provided by the multilateral development banks. The report will then look at the transformations of those sectors, and consider the risks of such an expansion. Finally, it will list recommendations to lower such risks.

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<sup>6</sup> <https://bit.ly/3GGhUjX>

# 1

## CHINA'S INVESTMENT FRAMEWORK



### 1.1

#### CHINA'S FOREIGN INVESTMENT LAW 2020

European – EU and EFTA<sup>7</sup> – investors have been increasingly active in Chinese animal agriculture. Those investors looking to buy stocks in Chinese meat and dairy companies are unlikely to encounter much resistance, regardless of whether the EU-China Comprehensive Agreement on Investment (see below) is ratified or not, since recent Chinese legislation has encouraged a fresh wave of investment from European banks, finance companies and sovereign wealth funds.

In January 2020, China's Foreign Investment Law (FIL) and its corresponding Implementing Regulations took effect.<sup>8</sup> The new law replaced a patchwork of older legislation and introduced broad reforms aimed at attracting international investment into the Chinese economy.

The reforms take steps toward levelling the playing field between domestic and “foreign-invested enterprise” – which are businesses that are partly or wholly owned by entities outside China. All types of foreign investors are now subject to the same company law as their domestic counterparts. Foreign and domestic businesses are now

<sup>7</sup> European Free Trade Association : Switzerland, Iceland, Norway and Liechtenstein

<sup>8</sup> <https://bit.ly/3IHENpf>

considered equals by the FIL in several significant respects, such as accessing government funds, securing land supply, obtaining tax breaks, and bidding for government contracts.<sup>9</sup>

The FIL also relaxes financial restrictions on foreign invested enterprises. For example, foreign-invested enterprises may now raise funds through public offerings of equity and debt securities. Investors can also freely transfer the proceeds of their investments into foreign currency and move them out of China.

Changes to company regulation have also been made.<sup>10</sup> Local authorities are now mandated by the central government to honour policy promises they make, and to fulfil contracts they enter into with foreign companies. Meanwhile, the law prohibits government authorities from forcing companies to transfer their technologies. Instead, they are required to protect the trade secrets of foreign-owned companies which they learn while performing their duties.

## 1.2 ENCOURAGED AND PROHIBITED INVESTMENTS

Two further policy instruments stipulate where foreign investment is encouraged (the 'Encouraged Industries Catalogue') and where it remains prohibited (the Special Administrative Measures for Foreign Investment – also known as the 'Negative List').<sup>11</sup> Both instruments are updated regularly, and the overall objective of the Chinese government is to open up more areas for investment over time. The total number of restrictions on the Negative List fell from 63 in 2017 to 33 in 2020.<sup>12</sup>

Restrictions on investments into the Chinese agricultural sector were relaxed in 2019, when the Chinese government removed most agricultural activities from the Negative List, and placed "modern agriculture" in the Encouraged Industries Catalogue. A few specific restrictions remain on investments into fishing, cultivating genetically modified crops and livestock, and the production of wheat and corn.

<sup>9</sup> <https://bit.ly/3EZrXjO>

<sup>10</sup> <https://bit.ly/3dPWsN7>

<sup>11</sup> <https://bit.ly/3ISxGdM>

<sup>12</sup> <https://bit.ly/33xStDf>; <https://bit.ly/3ypPxUq>

## 1.3 THE EU-CHINA COMPREHENSIVE AGREEMENT ON INVESTMENT

On 30 December 2020, after seven years of negotiation,<sup>13</sup> Brussels and Beijing announced an agreement "in principle" for a Comprehensive Agreement on Investment (CAI) between China and the European Union.<sup>14</sup> According to the President of the European Commission, Ursula von der Leyen, the CAI is "an important landmark" in the EU's relationship with China.

The deal, she said, would "rebalance our economic relationship with China." It would enable EU businesses to "grow and create jobs while providing unprecedented access to the Chinese market for European investors". Importantly it would also "commit China to ambitious principles on sustainability, transparency, and non-discrimination" – a big win for Europe's "values-based trade agenda".<sup>15</sup> Yet, by May 2021, the European Parliament had voted 599 to 30 (with 58 abstentions) in favour of freezing the ratification of the CAI.<sup>16</sup> The resolution signalled the European Parliament's intent, but was not a vote on the CAI's ratification, which was expected to be held later in 2021. That process, while not dead, is now on indefinite hold.<sup>17</sup>

As the texts were published, it became clear that there was room for improvement regarding the CAI's labour and environmental provisions.<sup>18</sup> These "investment and sustainable development" provisions are unlikely to help avoid the negative impact of certain investments. Yet, in this chapter of the CAI, the EU and China "recognise the importance of reviewing, monitoring and assessing the impact of the implementation of this Agreement on sustainable development". They also agree to promote RBC and CSR, and to implement the international agreements they are a party to.<sup>19</sup> The chapter also includes a non-derogation clause, and an ambiguous non-regression clause. Yet, it also states that "the Parties recognise that with respect to the enforcement of environmental laws, a Party is in compliance with [the non-derogation clause] if a course of action or inaction results from a good faith decision regarding the allocation of resources in accordance with its priorities for enforcement of its environmental

<sup>13</sup> <https://bit.ly/320bk90>

<sup>14</sup> <https://bit.ly/3IQvymq>

<sup>15</sup> <https://bit.ly/3m4C8fp>

<sup>16</sup> <https://reut.rs/3oVbtUp>

<sup>17</sup> <https://bit.ly/3ynhlDw>

<sup>18</sup> <https://bit.ly/3DXlVyK>. See also: <https://bit.ly/3DSORlq>. See also: <https://bit.ly/3dNu5PN>.

<sup>19</sup> <https://bit.ly/3IQvymq>

laws.” This addition, as well as the ambiguous wording of the non-regression clause – which states merely that the Parties consider it inappropriate to weaken environmental law to attract investment, rather than that they commit not to do so – renders those two provisions quite difficult to apply in case of dispute.

While the CAI may help boost trade and investment in the long term, it is not a precondition to do so. Even without the CAI, The cumulative EU foreign direct investment (FDI) flows from the EU to China over the last 20 years have reached more than €140 billion.<sup>20</sup> In addition, most individual EU member states – apart from Ireland – already have bilateral investment agreements with China that include similar commitments than those made in the CAI, apart from those related to sustainable development.

In the unlikely event that the CAI is ratified, it may well have little to no material impact on EU investment into China’s agricultural sector.<sup>21</sup> This is because the CAI makes very few new market access provisions but instead formalises the existing level of market access. The CAI also aims to ensure a level playing field between domestic and foreign companies, and that there is no forced transfer of technologies. These issues, however, were addressed in China’s recent Foreign Investment Law (FIL). In general, thanks to the FIL, it has never been easier for international capital to invest in Chinese animal agriculture. As the next section shows, major European investors already own stocks in China’s largest meat and dairy companies.

Yet, the weakness of the provisions on “investment and sustainable development” is a missed opportunity to address the detrimental impact foreign investment can have on sustainable development, including animal welfare, in the absence of proper regulatory framework in the countries concerned.

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<sup>20</sup> <https://bit.ly/3oQl7HQ>

<sup>21</sup> <https://bit.ly/31UzOZy>. See also <https://bit.ly/33tzcmh>. See also <https://bit.ly/30s2e4A>.

# 2

## EUROPEAN FINANCE IN CHINESE MEAT AND DAIRY



Eurogroup for Animals commissioned Ecostorm with the analysis of a range of public financial records – from company and investor reports to data provided via the Wall Street Journal and Financial Times – to study the European investments in four major meat and dairy companies that operate principally in China.

The analysis shows that EU and EFTA investors own shares worth around €4.5 billion (USD5.3bn) across four of the largest Chinese meat and dairy companies in China: Mengniu, Yili, WH Group, and Muyuan. Around 71% of this is held by 15 investors (see Table 1). The scale of investment in these four companies (see profiles page 11) suggests that European investors have developed an appetite for the Chinese meat and dairy sector.

The largest investors have put hundreds of millions of Euros into single companies, while some others are developing breadth across their portfolios. For instance,

UBS, Blackrock Asset Management Ireland, Deutsche Bank, Vanguard Group Ireland, and Credit Agricole hold stocks in all four companies.

Some of these investors have parent companies domiciled outside Europe, such as those of JP Morgan Asset Management Europe and First Sentier Investment, which are headquartered in the USA and UK, respectively.

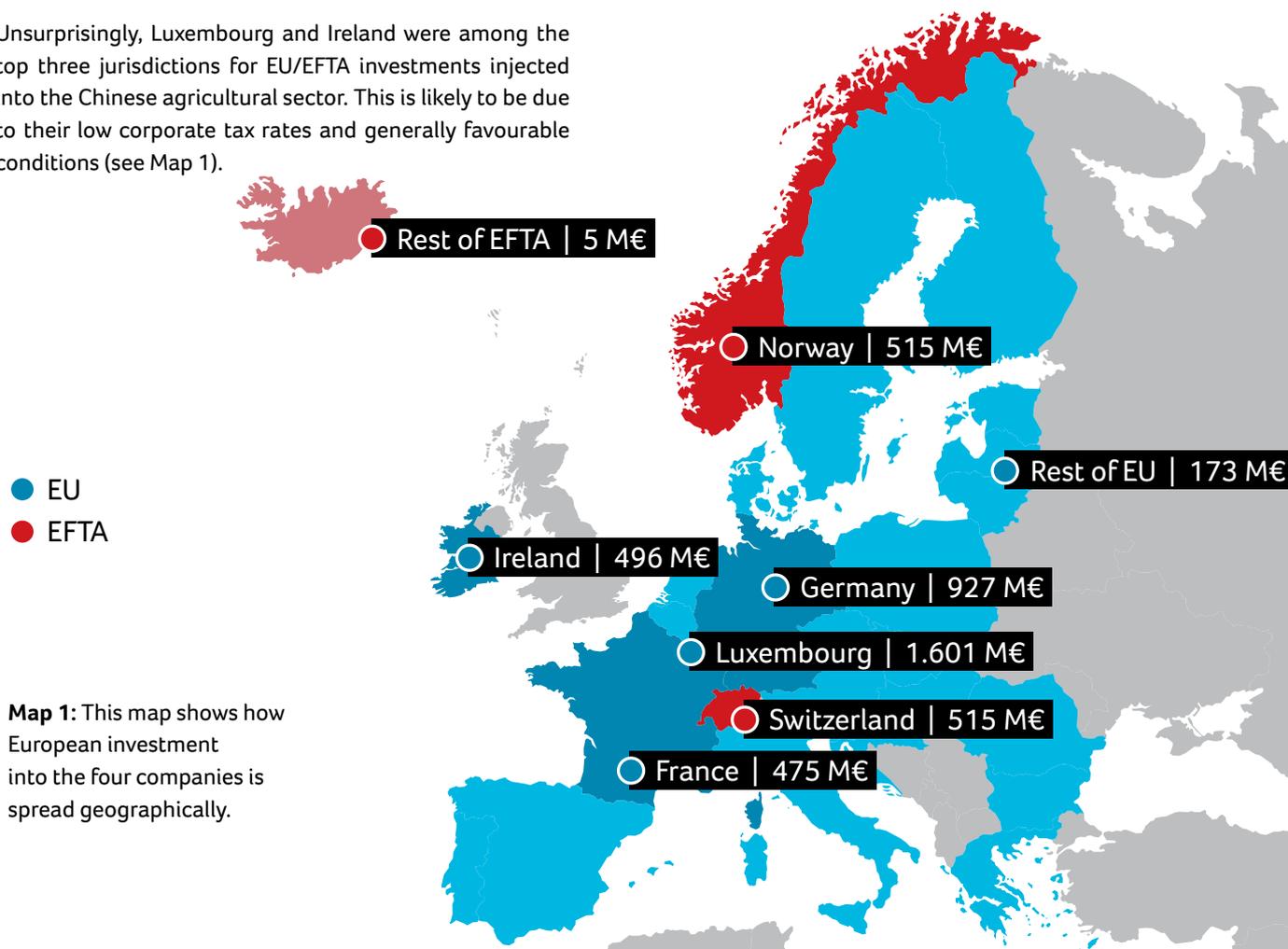
It is likely that the true scale of EU investment exceeds the figures reported here, as compiling these figures on a comprehensive basis is a complex task. For example, European investors may own intermediary companies located outside the EU/EFTA that we have not identified. We also note that investment levels are subject to rapid change. However, we are confident these figures were accurate as of September 2021.

**Table 1:** Fifteen EU and EFTA investors in four Chinese meat and dairy companies

Investor	Jurisdiction	Mengniu	Muyuan	WH Group	Yili	Total
		(€ million)				
AVGP LIMITED	Germany			642		642
Fidelity Investments/Luxembourg	Luxembourg	514		30	36	579
Government Pension Fund Global	Norway	202	29	89	117	437
Comgest SA	France				280	280
Schroder Investment Management	Luxembourg	271		2		273
Allianz SE	Germany	77	103	2		181
UBS AG	Switzerland	86	3	21	65	175
JPMorgan Asset Management Europe S	Luxembourg				167	167
BlackRock Asset Management Ireland	Ireland	73	20	24	17	134
Deutsche Bank AG	Germany	29	18	10	28	85
BNP Paribas SA	France	76		1	5	82
T Rowe Price Luxembourg Management	Luxembourg	72				72
Vanguard Group Ireland Ltd	Ireland	33	4	19	4	60
Credit Agricole Group	France	38	3	2	12	55
Franklin Templeton International S	Luxembourg	53				53
<b>Total</b>		<b>1525</b>	<b>180</b>	<b>841</b>	<b>731</b>	<b>3277</b>

## 2.1 WHERE DO THESE EUROPEAN INVESTMENTS COME FROM?

Unsurprisingly, Luxembourg and Ireland were among the top three jurisdictions for EU/EFTA investments injected into the Chinese agricultural sector. This is likely to be due to their low corporate tax rates and generally favourable conditions (see Map 1).



**Map 1:** This map shows how European investment into the four companies is spread geographically.

**Table 2:** Revenue of the four Chinese meat and dairy companies over last five years\*

Company	Currency	2016	2017	2018	2019	2020	2016-2020 Growth (%)
WH Group	HKD	167,157	174,395	177,168	188,852	198,468	19
	EUR	19,285	18,904	19,276	21,680	21,672	
Mengniu	HKD	62,837	69,365	81,700	89,613	85,440	36
	EUR	7,250	7,519	8,889	10,288	9,330	
Yili	CNY	60,189	67,547	79,022	89,646	96,339	60
	EUR	8,113	8,504	9,901	11,699	11,686	
Muyuan	CNY	5,600	10,026	13,366	20,194	56,226	904
	EUR	755	1,262	1,675	2,635	6,820	

\*All figures in millions / Rates in Euros are provided as indicative (the conversion was made with rates on 31 July of that year).

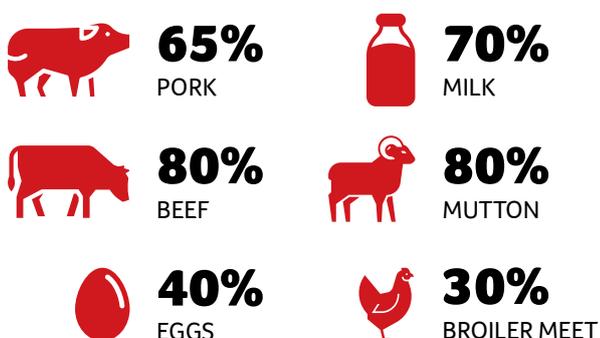
## 2.2 WHY ARE EU INVESTORS TURNING TO CHINA?

### Growth and profit perspectives

China offers many attractive prospects for investors in animal agriculture. Unlike more mature markets, where industrial farming is already highly developed and concentrated, large intensive animal production facilities account for less than 1% of Chinese farms with livestock. However, China's commitment to becoming self-sufficient – and if possible a surplus producer – in animal protein means there is substantial opportunity for growth.

These industrial farms reportedly produce 65% of all pork, 70% of all milk, 80% of all beef, 80% of all mutton, 40% of all eggs, and 30% of all broiler meat in the country.

**Figure 1:** Share of pork, beef, eggs, milk, mutton and broiler meat produced by industrial farms in China



As noted in the previous section, even without an EU-China investment agreement in place, the recent legislative changes in China imply that there are low barriers to investment. In addition, Environmental, Social and Governance (ESG) requirements are currently non-existent. China is only at the early stages of developing animal welfare standards,<sup>22</sup> and, as intensive farms at the moment only represent 1% of the sector, investors do not face the difficulty of having to rebuild or upgrade older production systems and/or embedded farming technology. They can simply build new infrastructures. The rapid abandonment of rural and extensive livestock farming for more intensive options presents an almost blank slate for development.

Investing in established businesses gives EU investors a foothold into this vast potential. A quick look at the balance sheets of established Chinese meat and dairy companies reveals why EU investors are drawn to animal agriculture in China and the promise of quick growth (see Table 3). In 2016, for example, Muyuan was an insignificant player. Yet, due to the supply shortage caused by a devastating outbreak of African Swine Fever (ASF), pigmeat prices boomed and the company has increased its revenues by 904% in just five years. Dairy companies Yili and Mengniu have also reported strong growth over the past five years – with revenue increasing by 60% and 36%, respectively.

Growth over the next five years could be even stronger and the huge economic opportunities offered by these companies, and their listing on international stock exchanges, are likely to entice many more EU and EFTA investors in the coming years.

<sup>22</sup> See more details in Eurogroup for Animals, [What could the European Union and China achieve for Animals?](#), 2020.

## CHINA'S BIG PLAYERS

**Muyuan** Formed in 1992, Muyuan is now one of China's largest livestock companies and generates almost all of its revenue from pig breeding. In addition to breeding, Muyuan also has a feed processing arm, and operates a fully integrated vertical supply chain through the parent company and 180 fully owned subsidiaries.

**WH Group** The largest pig meat company in the world, WH Group has leading positions in China, the US and key markets in Europe. Formerly Shuanghui International, a privately owned meat and food processing company, in 2013 WH acquired Smithfield Foods, the world's largest pig meat processor. It is, in addition, involved in packaged meats, fresh pig meat products and the slaughtering and sale of poultry and other related services.

**Mengniu** One of China's largest dairy companies, Mengniu is principally engaged in the manufacture and distribution of dairy products in China. Most of the company's revenue comes from liquid milk products (such as milk beverages and yogurt), with ice cream, milk formula and other products (such as cheese) making up the rest of its business.

**Yili** Another of China's largest dairy companies, Yili's product line includes liquid milk, milk powder, cold drinks, yogurt, health drinks, and cheese across 20 subsidiary brands. It distributes its products mainly within domestic markets but has a growing international presence.

## Putting the 'tech' in agritech

China's long-standing focus on technological innovation also brings with it attractive options for incorporating technology into farm settings, providing investors with living laboratories that can produce 'proof of concept' technology, which can then be scaled and implemented elsewhere.

Through its "Digital Agriculture and Rural Area Development Plan 2019-2025",<sup>23</sup> China has signalled its intention to implement a raft of ambitious agritech projects, including agricultural robots to increase the productivity and efficiency of fishing, Artificial Intelligence (AI) to monitor crop yields and improve livestock care and quality, and incorporating drones and satellites to better leverage data and decision making across the entire supply chain.<sup>24</sup>

<sup>23</sup> <https://bit.ly/33uK7Mz>. See also <https://bit.ly/3s4WZ6f>.

<sup>24</sup> <https://bit.ly/3m2Jjv7>

As one of the largest economies in the world, China offers companies operating in the software, hardware, robotics, biotech and Internet of Things (IoT) sectors a chance to explore a huge market where demand for agritech is growing. European companies are already exploiting these opportunities.

## Market response to the Foreign Investment Law (FIL) 2020

European investors have simply responded to the enactment of the FIL in China, taking advantage of this new legislation by increasing their holdings in Chinese meat and dairy companies. A notable entrant to the Chinese meat and dairy sector was the Norwegian sovereign wealth fund, which holds the world's biggest stock portfolio. Prior to the FIL, the fund held no stocks in Mengniu, Yili, Muyuan or the WH Group, but 18 months later, it owned shares in these companies worth approximately €437 million (USD 516m).

Our research shows that several other EU investors have also used the new investment framework to increase their shareholdings. For example:

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## CASE STUDY: DRIVERS BEHIND TECHNOLOGICAL DEVELOPMENT - THE CASE OF SMART AHC

In 2020, European chemical companies Evonik and BASF invested in a relatively young Chinese technology startup, SmartAHC, which had developed livestock monitoring devices and software that make use of artificial intelligence (AI) and the Internet of Things (IoT). Both firms justified the investment, in part, as a desire to help farmers with early detection and control of African Swine Fever (ASF) and other diseases.<sup>25</sup>

Both BASF and Evonik also produce animal feed and feed additives. By investing in creating their own technology to monitor health and feed requirements, they can cut out middlemen and drive sales directly to their businesses. Evonik's website,<sup>26</sup> for example, describes the merits of high-tech Precision Livestock Farming (PLF) in poultry farming: "Evonik Precision Livestock Farming enables the transformation of data from the entire value chain into valuable information that – with help from Evonik experts – leads to new knowledge about livestock farming. This knowledge facilitates facts-based decision-making, which results in precise actions that make use of Evonik's proven feed supplement and gut

health portfolio." BASF Venture Capital's website<sup>27</sup> goes further: "An important aspect of our investment decisions is the connection of the BASF Group's strategic and operative interests with the technical and commercial development objectives of young companies." Elsewhere BASF has noted the new tech could allow farmers to "change the feed mix to their animals, i.e., by adding or reducing the amount of any of the additives produced by BASF."<sup>28</sup>

While such practice does not automatically imply a negative impact for animals, it shows that improving animal health and welfare are not the only drivers behind the development of these technologies. Considering that some feeds and additives might have negative repercussions on animals,<sup>29</sup> it is important to ensure animal welfare and health are at the centre of any decision made regarding feed.

While investment in farm tech is dwarfed by direct investment in livestock operations – typically, the investment size is between \$1 million and \$5 million (€1.2m to €5.9m), it brings with it the promise of sustained future profits through an integrated business model that ties farmers into their tech as well as their feed.

<sup>25</sup> <https://bit.ly/3EUqxqV>

<sup>26</sup> <https://sciencing.evonik.com/plf/>

<sup>27</sup> <https://on.basf.com/3IZH8C4>

<sup>28</sup> Feed Navigator *op cit.*

<sup>29</sup> Shields, S., & Orme-Evans, G. (2015). [The Impacts of Climate Change Mitigation Strategies on Animal Welfare](#). *Animals*, 5(2), 361-394.

## 2.3

### BEYOND THE PRIVATE SECTOR: THE ROLE OF MULTILATERAL DEVELOPMENT BANKS

International Financial Institutions (IFI) and Export Credit Agencies (ECA) provide loans and funding for projects all over the world, including livestock-related ones. In that sense, they are an important vehicle that can help in driving higher animal welfare standards around the globe.

The expansion of China's animal agriculture sector has been supported by western development agencies over the past decade to the tune of around €0.87 billion (USD1 billion). Most of the funding was provided by the International Finance Corporation (IFC), the lending arm of the World Bank. The European Commission is one of the IFC's largest donors and EU Member States hold about one third of the Corporation's shares.<sup>30</sup>

The IFC has provided around €320m (USD370m) in loans and equity finance to five of China's major pig producing companies including Muyuan and Guangxi Yangxiang – both of which operate multi-storey, bio-secure, intensive pig breeding facilities. The IFC has also supported companies in the poultry, beef, dairy, feed and aquaculture sectors with loans and equity deals worth around €235m (USD270m).<sup>31</sup>

The Asian Development Bank, whose members include 13 EU Member States as well as Norway and Switzerland, has also financed projects in China's pork and dairy sectors. In 2016, it loaned a Mengniu subsidiary – Inner Mongolia Saikexing Breeding and Biotechnology Group – USD125m, and provided another USD95m to Jiangsu Lihua Animal Husbandry Stock Company.

EU Member States have also provided finance directly to Chinese companies through their development banks. Denmark's Investeringssonden for Udviklingslande (IFU) holds equity in, and has made loans to, two pig rearing projects (Lianyungang Scandinavian Farms Pig Industries and Dan Yu Pig Breeding China). The IFU expects its total investment in the projects will be worth USD143m. According to Compassion in World Farming, the former company has implemented some animal welfare standards, including the group housing of sows throughout pregnancy, and refraining from tail docking and teeth clipping.<sup>32</sup>

The ESG standards of international lenders leave much to be desired. In 2013, a report drafted by Humane Society International shed light on the absence of animal welfare criteria for most of these institutions. The report had some impact but the situation has not fully improved. Even if some institutions have now included certain criteria on welfare, the implementation is often lacking. As of today, the European Bank for Reconstruction and Development (EBRD) is the only one that imposes binding EU-equivalent animal welfare standards in the projects it finances. The others (such as the members of the World Bank Group or the network of ECAs) refer to the International Finance Corporation (IFC), which in turn refers to the standards recommended by the OIE, which are in most cases lower than EU standards. At national level, ESG standards can also be lacking. The IFU, for instance, recently exited another pig farm – Heilongjiang Asia-Europe – which was built in 2017 with capacity for slaughtering 200,000 hogs a year. It was given the IFU's highest ESG score of "A", yet the "modern" farm suffered a devastating outbreak of Asian Swine Fever in 2019 which, because of its size, led to the culling of 73,000 pigs on site.<sup>33</sup>

<sup>30</sup> <https://bit.ly/3pRZshL>

<sup>31</sup> <https://reut.rs/3GEXmIM>; <https://reut.rs/3oTdL6d>

<sup>32</sup> <https://bit.ly/3GMbNuJ>

<sup>33</sup> <https://reut.rs/33xVI2Z>

# 3

## CHINA'S LIVESTOCK TRANSITION



### 3.1

#### CHINA'S GROWING LIVESTOCK SECTOR

Spurred on by demand (see box), China's livestock industries have undergone rapid and profound transformations in the last few decades.<sup>34</sup> Its dairy, pig meat and poultry sectors are significant producers at the global level. They are dominated by large corporate companies, with abundant capital and technology and thus growing fast.

Livestock rearing in China was typically done in backyards or on small-scale farms until a technology-driven and profit-oriented industrial model was introduced in the 20th Century. In 2004, the Chinese government declared that intensive animal agriculture was “the path that must be taken”. China has signalled its intention to pursue even

greater growth and development in this area, as well as a desire for greater self-sufficiency. Large-scale, ‘modern’ intensive practices have been encouraged, and both the pig meat and dairy sectors have experienced rapid transformation.<sup>35</sup>

The number of dairy farms in China has dropped by 75% in just over a decade – between 2007 and 2018. Yet, in that same period, the number of cows living on farms of more than 1,000 cows increased from around 250,000 to 3.4 million.<sup>36</sup>

<sup>34</sup> <https://bit.ly/3GGhUjX>

<sup>35</sup> <https://bit.ly/3m3x6jA>

<sup>36</sup> <https://pwc.to/3dRxYD6>

Meanwhile, the scale of pig farming in China is without precedent. The largest companies, Muyuan and Wens Foodstuff, reportedly own more sows (breeding pigs) than some of the EU's largest pig meat producing nations, such as Germany, Denmark and France.<sup>37</sup>

## 3.2

### SCALE ALSO BRINGS PROBLEMS.

#### MEAT PRODUCTION AND CONSUMPTION IN CHINA

Throughout Asia, production and consumption of animal products is rising sharply. China, which is home to the world's largest national population (1.4 billion as of 2019), far exceeds other Asian nations in terms of meat consumption. Since 1990, per capita consumption in China has grown by 335%, making it the world's largest single market for meat. In China, meat is synonymous with prosperity and owes its symbolic status to the fact that it was a scarce commodity for the generations who lived through the Great Leap Forward and the Cultural Revolution.<sup>38</sup>

China produces 42% of the world's pig meat, which is more than the production of the entire EU bloc and triple the output of the US. It is the second largest producer of chicken meat in the world after the US and the third largest dairy producer,<sup>39</sup> after India and the US. It is also the largest egg producer in the world with its citizens consuming around one billion eggs per day.<sup>40</sup> China also ranks third in the world for beef production.<sup>41</sup> While beef is not a traditional meat in China, consumption has increased since 2018 when the African Swine Fever (ASF) epidemic devastated the country's pig population.<sup>42</sup>

#### Absence of animal welfare mandatory standards

China has not developed any specific legislation on animal welfare yet, but it does have regulations on animal protection within a range of different laws. The lack of specific animal welfare legislation in China can be linked with China's economic development, and in some quarters a fear that economic growth could be slowed down by the improvement of standards.<sup>43</sup> 'Local protectionism' and competition among Chinese regions could also be key obstacles for the adoption and implementation of any animal welfare legislation at regional level, with more relaxed regulations acting as incentives for businesses to invest in the region, at the cost of animal welfare.<sup>44</sup>

A decade ago, China did attempt to draft an animal welfare law. This process was led by Chinese scholars and foreign NGOs, such as the UK's Royal Society for the Prevention of Cruelty to Animals (RSPCA), but the process was dropped. In some instances, it was considered that the animal husbandry law (2006 and 2015) addressed animal welfare through its references to animals' living conditions. However, that law – while being based on World Organisation for Animal Health (OIE) standards<sup>45</sup> indirectly impacting animal welfare by requiring adequate feed, water, and space throughout journeys<sup>46</sup> – only states that authorities shall 'offer guidance to the producers and business operators of stockbreeding to improve the conditions and environment for the breeding, rearing, and transport of livestock and poultry'.<sup>47</sup> There is no explicit reference to the welfare of animals. Another set of national rules was published in 2008 regarding slaughter, but these are limited to the pigmeat industry and do not address welfare at the time of slaughter.<sup>48</sup>

In 2014, the first animal welfare standard was adopted by the Chinese Association for Standardisation (CAS), focusing on pig welfare.<sup>49</sup> CAS, a body recognised by the Chinese government, has since adopted other standards around animal welfare, but, while this is welcome progress, there is no legal obligation for producers to follow such standards.

With no welfare standards underpinning livestock-related sectors, the growth of such sectors is likely to increase risks for millions of animals, and subsequently for the planet and the people (see section 4).

<sup>37</sup> <https://bit.ly/3DOGD3L>. See also <http://genesus.com/global-mega-producers>.

<sup>38</sup> <https://bit.ly/3DTCZ8Z>

<sup>39</sup> <https://bit.ly/31XwEMn>

<sup>40</sup> <https://reut.rs/3yqnfn>

<sup>41</sup> <https://bit.ly/32OATGU>

<sup>42</sup> <https://bit.ly/3dNbjbl>

<sup>43</sup> <https://bit.ly/3pVTMmP>

<sup>44</sup> *Ibid.*

<sup>45</sup> Interview with researcher based in China.

<sup>46</sup> <https://bit.ly/3oRnuKd>

<sup>47</sup> <https://bit.ly/30uEVHq>

<sup>48</sup> <https://bit.ly/3dPeP52>

<sup>49</sup> Farm Animal Welfare Requirements for Pigs (CAS 235-2014) <https://bit.ly/3dRKDpU>

## Change is on the horizon

The establishment in China of the International Cooperation Committee for Animal Welfare (ICCAW)<sup>50</sup> – a government-backed non-profit organisation dedicated to ‘promoting animal welfare concepts, implementing animal welfare-friendly farming systems and improving the quality and safety of livestock products’ – in 2013 has brought more focus to animal welfare-related issues. ICCAW is engaged in drafting animal welfare standards with the Chinese Association for Standardisation (CAS) and acts as a conduit between international animal welfare non-government organisations, the Chinese livestock community and the central government.

Over the past years, China’s political leadership has also shown more openness to discussing animal welfare issues. In 2017, Yu Kangzhen, the Chinese Vice Minister for Agriculture, attended the ‘World Conference on Animal Welfare’ organised by ICCAW, the Food and Agriculture Organisation of the United Nations (FAO) and the UK’s Royal Society for the Prevention of Cruelty to Animals (RSPCA) and Compassion in World Farming (CIWF). In his opening remarks, he stated that ‘promoting animal welfare has become not only an important choice for the green development of agriculture and a significant measure to ensure food safety and healthy consumption, but even more so an important embodiment of human caring in modern society’. He then laid out a series of commitments that unequivocally placed the promotion of animal welfare at the heart of China’s agricultural development. Most significantly, Mr Yu indicated, in the strongest terms yet heard from senior Chinese officials, a commitment to introducing animal welfare legislation.<sup>51</sup> Animal welfare draft bills are now submitted every year in China, confirming that the country is willing to achieve legislative progress on animal welfare as well.<sup>52</sup>

In addition, it is important to note that even though no specific regulation exists yet, Chinese consumer and academic interest in animal welfare is well documented, at least in Chinese language publications.

Forexample, a 2020 study<sup>53</sup> hypothesised that the perceived lack of Chinese interest in animal welfare could be partly due to a lack of externally accessible accurate information about the country and the English language bias in scientific study. It identified 854 academic publications citing pig or chicken welfare in China published between

2008 and 2018. Much of this was aimed at improving conditions and health for pigs in particular (as higher value animals), as well as chickens.

The study also highlighted areas of good practice. As an illustration, the Chinese subsidiary of CP International, one of the largest global food production companies, has implemented improved welfare policy and practices in response to increasing consumer concern for animals. Other Chinese livestock companies such as Guangdong Dexion, Yili, Shandong Tuhe Food Co. Ltd and BenLai Group, have also incorporated welfare into their operations to varying degrees.

## 3.3

### TRANSITION IN THE PIG MEAT INDUSTRY: FROM ASF TO “PIG HOTELS“

#### An industry devastated by African Swine Fever

The risks to welfare are most graphically illustrated by an outbreak of African Swine Fever (ASF) that emerged in 2018 in Eastern European wild boar populations, and tore through China, decimating the largest hog herd in the world.

Animals infected by the virus initially suffer high fever, loss of appetite and diarrhoea. Later, their skin turns red due to internal haemorrhaging and they bleed to death within a week. It is a brutal, painful death comparable to the way the Ebola virus kills humans. There is no cure or vaccine for ASF and disease control requires the culling of whole herds that may have been exposed.

The Chinese government has stated that 40% of its hog herd was culled within a year of the 2018 outbreak – but this is considered a conservative estimate due to underreporting. Other reports have put the figure at 50% or higher, which suggests that between 150 and 200 million pigs<sup>54</sup> may have succumbed to the virus or been culled. In 2021 another partial outbreak of ASF occurred in northern China. Henan, the third biggest breeding province, lost 25% of its sows in the first quarter of the year.<sup>55</sup> With new outbreaks also detected in the southwestern province of Sichuan and elsewhere, the situation in the rest of China remains uncertain.<sup>56</sup>

<sup>50</sup> <https://bit.ly/31ZUSpt>

<sup>51</sup> <https://bit.ly/3yoGRxu>

<sup>52</sup> <https://bit.ly/3yw7ZL5>

<sup>53</sup> <https://bit.ly/3pUAqP5>

<sup>54</sup> <https://reut.rs/3F1q9He>

<sup>55</sup> <https://reut.rs/3oRnYQC>

<sup>56</sup> <https://reut.rs/31Offq1>



📷 Muyuan Foods multi-storey pig farm in Neixiang county, Henan province, China. © Reuters

The outbreak is perhaps the worst animal epidemic in world history. The untreatable virus is now spreading across the world with new cases reported in South Korea,<sup>57</sup> the Dominican Republic<sup>58</sup> and Bulgaria<sup>59</sup> in July/August 2021. This epidemic has profoundly reshaped both Chinese and global pig meat markets. To meet the shortfall in pig meat supply caused by mass culls, the Chinese government turned to imports from the EU, the US and Brazil – at record prices. Restoring the domestic hog herd and preventing another outbreak are major priorities.

### The rise of the biosecure mega-model

As a result, an emerging model of intensive animal agriculture is rapidly growing dominant: the fully integrated, biosecure, highly-automated mega farm. This new-look industry is competing for the market share vacated by millions of bankrupt small-scale and backyard operations that were once the backbone of the sector.

Bloomberg reports that the Chinese government approved 20,000 farms with a combined capacity to rear 150 million pigs in the first half of 2020 alone.<sup>60</sup>

As an illustration, since the ASF outbreak, Muyuan has built mega farms at an unprecedented speed and scale. In 2020, the company spent more than €5 billion (USD 5.9bn) on new facilities – more than the annual revenues of Vion, the largest meat company in the Netherlands. Muyuan claims it has secured resources to produce 80 million pigs a year<sup>61</sup> – more than the combined national outputs of Spain, Germany and France – Europe’s three largest pig producers.<sup>62</sup>

Muyuan Foodstuff is leading the field in intensive hog production with the construction of a new farm that will eventually house 84,000 sows. This facility alone will produce 2.1 million pigs a year for slaughter, making it by far the largest hog farm in the world – around ten times the size of an average US mega farm. The new facility,

<sup>57</sup> <https://bit.ly/3ynxgaa>

<sup>58</sup> <https://bit.ly/3m34QNW>

<sup>59</sup> <https://reut.rs/3IMIQog>

<sup>60</sup> <https://bloom.bg/3DVBHdo>

<sup>61</sup> <https://reut.rs/3oSz5c3>

<sup>62</sup> <https://bit.ly/3IMRxLg>

built across 21 six-storey buildings, looks more like a 1960s Soviet housing estate than a farm. According to Muyuan's CEO, the billionaire Qin Jun, the farm "has an experimental element" that will use "fewer people and more technology". This includes thermal imaging cameras, 'intelligent' feeding systems and manure-cleaning robots.

New Hope Group, another Chinese meat and feed company about one-quarter the size of Muyuan, is also following the new biosecure mega model. It has recently completed the construction of three five-storey buildings on a 140,000 square metre site in Beijing that will produce 120,000 pigs a year.<sup>63</sup> The new farm is equipped with automatic feeding, disinfection and air filtration systems, but it can still be smelled from a kilometre away – a noxious reminder of the living creatures at the heart of this digital system. New Hope Group's EU investors include Deutsche Bank, Credit Agricole Group and Swedbank – as well as UBS in Switzerland and Norway's sovereign wealth fund.

As the intensive farming of pigs goes digital, China's tech giants – including smartphone maker Huawei,<sup>64</sup> e-commerce site Alibaba, and the internet gaming company Netease – have repurposed their products for the pig market.<sup>65</sup> The companies use AI-assisted technologies – such as face and voice recognition and real-time biometric data – to 'optimise' hog farming while reducing human contact.

### 3.4 TRANSITION IN THE DAIRY INDUSTRY: EMBRACING AUTOMATION

In 2020, Chinese dairy farmers collectively produced 34 million tonnes of raw milk. Yet, this only satisfied around 70% of China's booming consumer demand. In a bid for greater self-sufficiency, the Chinese government has announced a production target of 45 million tonnes of raw milk a year by 2025, but increasing national milk production by a third in five years is a major challenge – even for a dairy sector that is accustomed to industrial transformation.

The number of dairy farms in China has dropped by 75% in just over a decade – between 2007 and 2018. Yet, in that same period, the number of cows living on farms of more than 1,000 cows increased from around 250,000 to 3.4 million. Milk output over this time has remained relatively constant, at just over 30 million tonnes a year. Rising

consumer demand has been met by a growth in imports, which currently supply markets with around 15 million tonnes (of raw milk equivalent) each year.<sup>66</sup>

A new wave of intensive dairy farm construction, aimed at boosting domestic production, is now under way. In 2020, planning for more than 200 dairy farms was approved – 60% of which will hold more than 10,000 cows.<sup>67</sup> In the past, China was not considered a major dairy producing country, but now two of the 10 biggest dairy companies in the world – Yili and Mengniu – are Chinese.<sup>68</sup>

The trend toward massive, integrated, automated operations is clear. Both Mengniu and Yili announced new 100,000 cow capacity projects in 2020.

- Yili started work in 2020 on a €537 million (USD643m) facility in Inner Mongolia, which can hold up to 100,000 cows.<sup>69</sup> This appears to be part of a bigger plan, reported in state media, to build "20 large-scale demonstration ranches and an intelligent factory for high-end organic dairy products" at a cost of €3.92 billion (USD4.6bn).<sup>70</sup>
- In 2020, Mengniu also broke ground on an 867-hectare "high-end milk production complex, capable of raising 100,000 cows" (see box) that will cost an estimated €523 million (USD618m).<sup>71</sup>

This intensive and integrated model of breeding, milking and processing on one site is set to be increasingly replicated across China, according to state media.<sup>72</sup> In addition, much like the country's hog sector, dairy farming is also rapidly going digital and limiting human interactions in a bid to maintain hygiene.

<sup>63</sup> <https://bit.ly/3oSzbAr>

<sup>64</sup> <https://bbc.in/3mpcbYr>

<sup>65</sup> <https://bit.ly/3DRrGOo>

<sup>66</sup> <https://pwc.to/3GILOMt>

<sup>67</sup> <https://reut.rs/3s5wEVM>

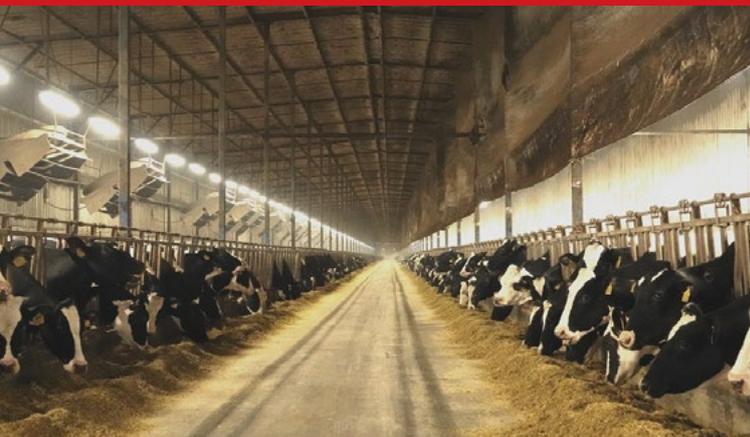
<sup>68</sup> <https://bit.ly/3yoljX2>

<sup>69</sup> <https://bit.ly/31O4bjn>

<sup>70</sup> <https://bit.ly/3dRBv4l>

<sup>71</sup> <https://bit.ly/3ILtMmP>

<sup>72</sup> <https://bit.ly/3yt7m58>



## MENGNUI 'S MEGA DAIRY

Two projects run by Mengniu demonstrate the scale of new dairy enterprises.

At Shengmu Dairy, which is controlled by Mengniu,<sup>73</sup> the farm's control room houses 36 CCTV screens. From here, staff observe the continuously rotating milking machine as a handful of workers attach automatic suction teats to udders. The machine releases the suction when it detects that the cow udders are empty. The farm is reportedly built to accommodate up to 100,000 cows although it is unclear how many are actually reared on site.<sup>74</sup>

Another dairy farm in Anhui Province, run by the Mengniu subsidiary China Modern Dairy, holds 38,000 cows in intensive conditions. Lactating cows are kept in pens – without room to turn around – in eight barns that hold 2,880 cows each. They are fed alfalfa which is grown on an adjacent 6,667 hectare site – while their calves are reared outdoors in small cages.

The cows are milked three times a day by attachment to one of eight rotating milking machines that can hold 80 cows each – thus milking 640 cows at any one time. In this way, more than 20,000 cows are milked every day. The fresh milk – around 650 tonnes a day – is then processed and packaged on site in less than two hours.

This growth has been driven by its part-ownership by COFCO, the Chinese state-owned meat and dairy company, which gives Mengniu political and economic clout and allows the government to shape the dairy industry.

## 3.5 AND THE EUROPEAN COMPANIES IN ALL THIS?

Mengniu's revenues have increased by 130% over the last decade and the company is now the ninth largest in the world by revenue.<sup>75</sup> Its growth has benefitted from the investment and strategic support of European dairy giants Arla and Danone. In 2012, Arla (whose brands include Apetina, Lurpak and Castello) and COFCO created a joint venture called COFCO Dairy Investments (CDI), which acquired a significant stake in Mengniu.

Under the agreement, Arla and COFCO also created the China-Denmark Milk Technology and Co-operation Centre, "to provide expertise on milk quality, traceability and controlled milk production on farms". This gave Mengniu much-needed expertise to implement modern industrial dairy methods at scale in China.<sup>76</sup>

One year later, Danone also entered strategic cooperation agreements with COFCO and bought a stake in Mengniu, which it expanded in 2014, to 9.8% of the company.<sup>77</sup>

These investments have paid off handsomely for both European parties. Arla's 2020 annual report states that its CDI shareholdings, indirectly worth around 5.3% of Mengniu, have a fair market value of more than €1.024 billion (USD1.21bn) – three times the €343 million (USD405m) it paid for its stake in 2012.<sup>78</sup> In May 2021, Danone sold its shares in CDI for €1.6 billion (USD1.9bn), netting a profit of around €740 million (USD874m) on its initial investments.<sup>79</sup>

The quid pro quo – of industry expertise for market access – has clearly worked for the Chinese government too, which has developed Mengniu into a globally significant transnational dairy company. Now, Mengniu will consolidate its position in the domestic market by building and operating mega farms of unprecedented scale.

Although this report focuses on China's domestic market, it is worth noting that demand for meat and dairy is increasing throughout SouthEast Asia and China's ambitious Belt and Road infrastructure-building project, if completed, will create new intra-Asian trade routes that could open up new and lucrative markets throughout Asia for Chinese dairy (and other agricultural) products. EU investors are, without doubt, watching developments.

<sup>73</sup> <https://bit.ly/3lOzELF>. See also: <https://bit.ly/3dRNgrM>.

<sup>74</sup> <https://bit.ly/3dPy91P>

<sup>75</sup> <https://bit.ly/3dRC2Dn>. See also: <https://bit.ly/323y5c3>.

<sup>76</sup> <https://on.ft.com/3dSFYZv>

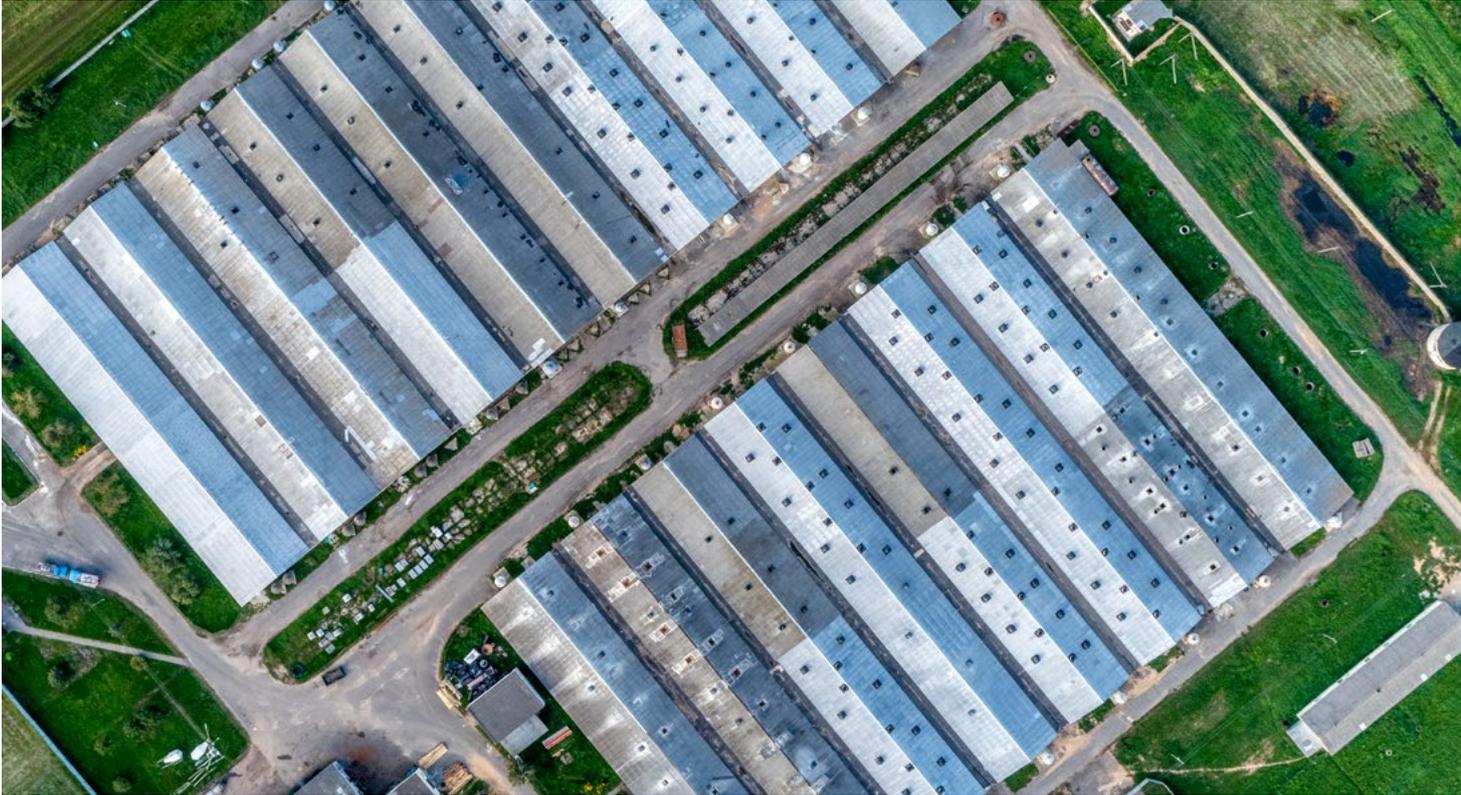
<sup>77</sup> <https://on.ft.com/3dR34uE>

<sup>78</sup> <https://bit.ly/3DVDHCq>

<sup>79</sup> <https://on.ft.com/3dLTLwa>

# 4

## RISKS OF THE NEW MODEL



The courting of investment – both foreign and domestic – in China’s livestock sector is part of a larger and longer-term agricultural transition plan which focuses on high output, high value agricultural products and the technology which both drives and monitors that output. During this period of transition, the priorities for China’s overall agricultural output may shift, but we can expect a continued emphasis on animal products.

As indicated above, the current lack of legislation on farmed animal welfare in China, as well as the low level of sustainability-related barriers faced by foreign investments when entering the Chinese market, imply that increasing investments into the Chinese livestock sector will be connected to inherent animal welfare, environmental, human health and corporate risks.

### 4.1

#### ANIMAL WELFARE RISKS

Farm animals can suffer from sickness and discomfort in both indoor and outdoor systems.<sup>80</sup> There are, however, specific welfare concerns for animals that are housed full-time indoors, in high densities, on a large scale and with controlled and manufactured diets. In these intensive systems, animals are primarily ‘production units’ and, given the wider economic pressures of producing cheap meat, economic interests may take priority over welfare.

Overcrowding is arguably the most important issue in animal welfare, because it leads to many other problems including rapid spread of infectious disease, routine

<sup>80</sup> <https://bit.ly/3DSXzX8>

antibiotic use – and therefore surge in antimicrobial resistance – stress, aggressive behaviour, and associated painful medical procedures and other interventions.<sup>81</sup>

These intensive systems are widely used in China. According to Professor Peter Li, an expert on animal welfare in China, “many Western farming practices (such as gestation crates, castration, tail docking and ear-clipping of pigs, beak-trimming and battery cages for hens, castration and early weaning of calves, and forced feeding of ducks and geese for foie-gras production) are being adopted and utilised with increasing frequency.”<sup>82</sup>

Alongside overcrowding, other aspects of intensive farming can lead to welfare concerns:

- Selective breeding e.g. for rapid weight gain in broiler chickens or higher milk yield in dairy cows. A result of this practice can, however, be genetic deformities, musculoskeletal injuries in poultry, metabolic diseases in dairy cows and overall reduced immunity.
- Unnatural diets that increase growth and productivity but have animal health consequences.
- Weaning the animals too early, which can compromise immunity in pigs and cattle.
- Lack of enrichment, meaning that animals cannot display their natural behaviour, leading to boredom and aggression.
- The farrowing arrangements for sows.
- Stress and injuries associated with animal transportation.
- Handling of animals prior to slaughter and the effectiveness of the stunning methods.



## ANIMALS AS PART OF THE 'INTERNET OF THINGS'

The prevailing system views animals as production units. Aspirations for a new high-tech precision livestock system, where animals are monitored by high-tech collars and tags and drones, risks branding farmed animals into data units as well, turning them into inanimate objects in the Internet of Things.

Increasing automation – for example remote sensors in sheds to monitor light and temperature, intelligent ventilation control in livestock buildings and strategically-placed cameras to track gait and lameness and monitor animal behaviour,<sup>83</sup> as well as wearable tech for animals, separates producers and consumers further from the reality of animals as sentient beings.

Since the data retrieved will, as highlighted in Section 2, increasingly be controlled by companies that also sell feed and feed supplements, decisions about care are essentially left to the corporate body – which has other, vested interests – rather than the producer.

Precision livestock farming (PLF) sells itself on the back of noble welfare goals. Some types of PLF such as precision feeding,<sup>84</sup> may even, eventually, prove helpful to welfare. Yet such farms, which can be run by a minimal staff of technicians rather than farmers, further reduce the pool of farmer knowledge and experience in good animal husbandry necessary to ensure consistently high welfare. Technology does not need not be at odds with high welfare goals, but the over-focus on technology, as opposed to the animals themselves, dictates to a large extent where investment flows and vital investment in healthier farms may lose out as a result.

<sup>81</sup> <https://bit.ly/3IQEYyi>

<sup>82</sup> <https://bit.ly/30ooFrg>

<sup>83</sup> <https://bit.ly/3ETV8Vf>

<sup>84</sup> <https://bit.ly/3ILtMTL>

## 4.2

### HUMAN HEALTH RISKS

Poor animal welfare often leads to poor animal health, and thus to increased risks to public health, as the situation negatively affects food safety, fosters antimicrobial resistance and contributes to the spread of zoonoses.<sup>85</sup>

#### Food Safety

Because they increase not only the proximity of animals, thereby facilitating transmission, but also chronic stress levels which directly affect the animals' immune systems, intensive production systems are the ideal breeding ground for the evolution of pathogens.<sup>86</sup>

Several bacteria hosted by farmed animals, such as *E. coli*, *Salmonella* and *Campylobacter*, are amongst the main causes of food-borne zoonotic illness in humans, with almost 350,000 confirmed cases recorded in the European Union in 2018.<sup>87</sup> *Campylobacter* is considered by the World Health Organisation (WHO) to be the most common cause of human gastroenteritis,<sup>88</sup> and the European Food Safety Authority (EFSA) has declared it the most important food-borne pathogen.<sup>89</sup> EFSA studies also reveal that the primary source of human campylobacteriosis, accounting for 80% of EU cases, is poultry meat.<sup>90</sup> Chicken meat production most often relies on fast-growing breeds, leading to animals living most of their life in pain due to their overweight. Achieving lower levels of stress through higher animal welfare, as well as using slower-growing breeds, could balance environmental stressors and therefore animal health consequences, leading to reduced risks of developing future food-borne diseases.

<sup>85</sup> Read more on this in Eurogroup for Animals, [What could the European Union and China achieve for Animals?](#), 2020.

<sup>86</sup> <https://bit.ly/3s5pZur>

<sup>87</sup> <https://bit.ly/3oSEMXD>

<sup>88</sup> <https://bit.ly/3IOxbRO>

<sup>89</sup> European Food Safety Authority (EFSA). (2017). The European Union summary report on trends and sources of zoonoses, zoonotic agents and food-borne outbreaks in 2016. *EFSA Journal*, 15, 5077.

<sup>90</sup> EFSA Panel on Biological Hazards (2011) Scientific Opinion on *Campylobacter* in broiler meat production: control options and performance objectives and/or targets at different stages of the food chain. *EFSA Journal*, 9(4): 2105.

### Antimicrobial Resistance

The WHO defines antimicrobial resistance (AMR) as what happens when microorganisms such as bacteria, fungi, viruses, and parasites change over time and no longer respond to antimicrobial drugs (such as antibiotics, antivirals, antifungals, and antiparasitics), making it harder to treat infections, and increasing the risk of disease spread, illness and death.<sup>91</sup> It stresses that antibiotic resistance is 'one of the biggest threats to global health, food security, and development today'.<sup>92</sup>

The economic costs of not mitigating AMR are immense, as in the long term, it will lead to the proliferation of diseases that might have been preventable. AMR is said to be responsible for an estimated 33,000 deaths per year in the European Union,<sup>93</sup> and around 700,000 worldwide. An AMR review commissioned by the UK Government in 2016 even forecasts ten million AMR-related deaths per year in 2050.<sup>94</sup> It is estimated that AMR costs the European Union roughly €1.5 billion per year in healthcare costs and productivity losses.<sup>95</sup>

In September 2016, the United Nations General Assembly recognised that overuse of antimicrobials in livestock production, which are then released into soils and waterways, is the primary cause of the surge in antimicrobial resistance.<sup>96</sup> This phenomenon is not due to small-scale productions, but to the spread of intensive farming systems, in which antimicrobial products are routinely and increasingly used to counterbalance poor animal welfare practices. In their Global Action on AMR, the FAO, WHO and OIE indicated animal welfare as a key consideration in efforts to limit the emergence of antimicrobial resistance.<sup>97</sup> In 2017, the EFSA and the European Medicine Agency (EMA) echoed this position,<sup>98</sup> stating that 'measures must be implemented that improve animal health and welfare and thereby reduce the need for antimicrobials in the first place'.

<sup>91</sup> <https://bit.ly/3EVVY46>

<sup>92</sup> <https://bit.ly/2LFGV4m>

<sup>93</sup> DG SANTE website on Antimicrobial resistance - <https://bit.ly/3dNwQjR>.

<sup>94</sup> <https://bit.ly/3EUqCLb>

<sup>95</sup> DG SANTE website on Antimicrobial resistance - <https://bit.ly/3dNwQjR>.

<sup>96</sup> <https://bit.ly/3FB8jv9>

<sup>97</sup> <https://bit.ly/3DNYW9v>

<sup>98</sup> EMA (European Medicines Agency) and EFSA (European Food Safety Authority), 2017. EMA and EFSA Joint Scientific Opinion on measures to reduce the need to use antimicrobial agents in animal husbandry in the European Union, and the resulting impacts on food safety (RONAFA). [EMA/CVMP/570771/2015]. *EFSA Journal* 2017;15(1):4666, 245 pp. doi 102903/j.efsa.2017.4666. [Online]

Although official statistics are missing, China is thought to be the largest consumers of antibiotics in the world,<sup>99</sup> and although some reports suggest this has been declining,<sup>100</sup> an increase in intensive livestock facilities could see usage increase. Some forecasters say overall antibiotic use in chicken and pigs in Asia will increase antibiotic usage 129% and 124% respectively by 2030.<sup>101</sup>

## Zoonoses

The next – and potentially worse – pandemic could easily emerge from intensive livestock farms. Farmed animals from the same genetic strains kept by the billions (trillions, if we consider fish in aquaculture) are reservoirs and pathways for diseases that can be dangerous, if not devastating, for humans and wild animals.

A recent study found that ‘since 1940, agricultural drivers were associated with >25% of all – and >50% of zoonotic – infectious diseases that emerged in humans, proportions that will likely increase as agriculture expands and intensifies’.<sup>102</sup> The impacts of such diseases are far-reaching: in 2010, the World Bank estimated the direct economic cost of zoonotic diseases over the past decade to be USD20 billion, with further indirect losses estimated at over USD200 billion.<sup>103</sup>

Intensively farmed poultry and pigs are most notable for Highly Pathogenic Avian Influenza (HPAI) and Swine Influenza, the recurrence of which is due to human interaction with animals whose immune system is compromised. This is of particular concern as pigs and poultry are the most widely farmed species in the European Union<sup>104</sup> and China.

Pigs can be infected with both avian and human influenza strains and may provide a ‘mixing’ vessel, allowing novel combinations to emerge. This is called a reassortment. In this way, pigs may act as an intermediate host in the introduction of novel influenza subtypes into the human population. The virus can then transmit from person to person, potentially leading to a pandemic.<sup>105</sup>

Multiple reassortment events in pigs gave rise to the H1N1 swine flu pandemic that emerged in 2009 in Mexico. At the time, the US Center for Disease Control and Prevention (CDC) reported that the H1N1 virus had killed between 151,00 and 575,000 people worldwide, 80% of whom were under the age of 65.<sup>106</sup> In a joint statement, the WHO, the FAO and the OIE warned about ‘the circulation of A(H1N1) subtype influenza viruses in the swine population in China with evidence of zoonotic potential [that] has alerted the world to the pandemic risk associated with swine influenza viruses’. According to Keith Sumption, Chief Veterinary Officer of the FAO, the virus ‘showed characteristics associated with increased ability for zoonotic transmission – the potential ability to infect humans’.<sup>107</sup>

Scientists are also warning that certain coronaviruses circulating among pigs could, in the future, be transmitted to people.<sup>108</sup> Transport of live pigs over long distances facilitates the mixing of swine influenza viruses that can lead to multiple reassortments and give rise to new outbreaks. Transport is also an incredibly stressful event for animals due to the multiple stressors it involves, such as gut clearing, noise and vibrations, and also cramped conditions. The latter is of particular concern given the increased opportunity for pathogens to spread in such small spaces.

It is often argued by the poultry sector that avian influenza is mainly spread by wild birds. However, the viruses carried by wild birds are usually of low pathogenicity<sup>109</sup> and evolve into a more dangerous form of avian influenza,<sup>110 111</sup> only when they reach overcrowded sheds.

Once again, de-intensifying animal production, both spatially (by distancing farms) and by drastically reducing the numbers of animals, coupled with better animal welfare, will improve animal health and contribute to reducing the risk of future pandemics.

<sup>99</sup> OECD, Working Party on Agricultural Policies and Markets, [Antibiotic Use and Antibiotic Resistance in Food Producing Animals in China](#), 2019.

<sup>100</sup> <https://go.nature.com/3GJ790A>

<sup>101</sup> <https://bit.ly/3oU2B18>

<sup>102</sup> <https://go.nature.com/3ls9l4H>

<sup>103</sup> World Bank. 2010. ‘People, Pathogens and Our Planet : Volume one : towards a one health approach for controlling zoonotic diseases’.

<sup>104</sup> <https://bit.ly/3yp7Vfy>

<sup>105</sup> <https://bit.ly/3sapP5n>

<sup>106</sup> <https://bit.ly/3DSZXx4>

<sup>107</sup> <https://bit.ly/3IYYHw6>

<sup>108</sup> <https://bit.ly/3m4vEgK>

<sup>109</sup> <https://bit.ly/3pSF4gh>

<sup>110</sup> <https://bit.ly/3s5sX23>

<sup>111</sup> Nickbakhsh, S. et al., 2016, Modelling the impact of co-circulating low pathogenic avian influenza viruses on epidemics of highly pathogenic avian influenza in poultry, *Epidemics*, 17:27-34.



## 4.3 ENVIRONMENTAL RISKS

Although large industrial livestock landless operations are justified as being ‘land sparing’ they are still highly resource intensive and bring environmental risks.

In addition to being very detrimental to animal welfare, intensive industrial farming has a very negative impact on the environment and on climate.<sup>112</sup> It is a leading driver of land degradation, including deforestation, especially if crop-feed production required to sustain this industry is taken into account. In 2020 China imported a record 100 million tonnes of soy – two thirds of which came from Brazil bearing high deforestation risks.<sup>113</sup> <sup>114</sup> Chinese feed companies buy mostly soybeans to crush into soymeal to feed livestock (mainly pigs) and soy oil. With an increasing domestic herd, the amount of feed needed will only grow. Since China does not have the landmass to produce its

own feed, a question mark hangs over who will feed China’s livestock in the future and at what environmental cost.

These systems also contribute to water scarcity in numerous ways. Farm animals first require water for hydration, but an increasing amount of water is needed to clean enclosures and sheds on industrial units, to dispose of waste, and for cooling animals. Processing animal products also requires large volumes of water and can result in significant amounts of wastewater. Growing animal feed also involves significant amounts of water. In addition, the farm animal sector is increasingly polluting the available water. Industrial farm animal production is a major contributor to, amongst other things, eutrophication, soil acidification, ‘dead’ zones in coastal areas, degradation of coral reefs and of water supplies. Water pollution is an increasing and seemingly intractable problem in China, particularly in rural areas. The 2007 water pollution census concluded that agriculture was responsible for 44%

<sup>112</sup> <https://bit.ly/3oS9BeO>

<sup>113</sup> <https://reut.rs/3oTmYf2>

<sup>114</sup> <https://bit.ly/3dNGGm3>

more water pollution than other industrial operations.<sup>115</sup> Fecal pollution from livestock and poultry farming – an estimated 243 million tonnes of it – was the primary source of agricultural pollution.<sup>116</sup> This remains the case today.<sup>117</sup>

Poor animal welfare also negatively impacts the climate and the environment. The livestock supply chain accounts for 16.5% of global greenhouse gas (GHG) emissions.<sup>118</sup> There is evidently an issue of quantity,<sup>119</sup> but the way we raise animals also matters. According to the IPBES, “approximately 25% of the globe’s GHG emissions come from land clearing, crop production and fertilization, with animal-based food contributing 75% of that. Intensive agriculture has increased food production at the cost of regulating and non-material contributions from nature”. In addition to potentially allowing for higher animal welfare standards, grass-based and mixed-farm systems, less dependent on additional feed, also have better capacities for carbon sequestration.<sup>120</sup>

Finally, livestock production is said to be ‘the single most powerful driver of habitat loss on Earth’<sup>121</sup> and 80% of terrestrial birds and mammal species currently considered as threatened are challenged by habitat loss driven by agricultural activities.<sup>122</sup>

## 4.4

### INVESTOR RISKS IN INTENSIVE ANIMAL AGRICULTURE

Risks for the animals can quickly translate into risks for investors. Sick animals raise the cost of production; medicine use is higher and the risk of loss through premature death of animals before they reach slaughter is a constant problem. Reports of abuse on farms and contaminated meat reaching the consumer food chain present financial as well as reputational risks for investors.

It is not at all clear that these risks have been considered or addressed by the Chinese government and Chinese companies – nor by EU investors – even if food safety is usually very high on their agenda. These risks were also not given due regard during the EU-China negotiations on the CAI.

In addition, in spite of widespread agreement that agriculture and particularly livestock is a major contributor to climate change, it is still unclear how the recently agreed EU taxonomy on climate objectives, which sets criteria for economic activities in the sectors that are most relevant for achieving climate neutrality and delivering on climate change adaptation, will address the case of industrial livestock farming.<sup>123</sup>

At global level, hardly any global ESG criteria include considerations of animal welfare. Despite clear references to environmental protection, the two leading standards on responsible business conduct – ie. the United Nations Guiding Principles on Business and Human Rights (UNGPs)<sup>124</sup> and the OECD Guidelines for Multinational Enterprises (OECD Guidelines for MNEs),<sup>125</sup> do not contain an explicit mention of animal welfare,<sup>126</sup> even if a future revision of the OECD Guidelines for MNEs might change

<sup>115</sup> <https://on.china.cn/323P3XK>

<sup>116</sup> <https://bit.ly/3pX79TS>. See also <https://bit.ly/3m4knwJ>.

<sup>117</sup> <https://bit.ly/3GCJvc8>

<sup>118</sup> <https://bit.ly/3dPELxb>

<sup>119</sup> The most important greenhouse gases from animal agriculture are the potent greenhouse gases methane and nitrous oxide. Even if we succeed in eliminating fossil fuel emissions, emissions from the current global food system, heavy in animal protein, would leave the 1.5°C target out of reach and it would even make it difficult to stay below 2°C of global warming.

<sup>120</sup> Canu & Forabosco (UNEP DTU 2018), [Greenhouse gas emissions of livestock raised in a harsh environment](#), International Journal of Global Warming, 2018 Vol.15 No.4, pp.431 – 446.

<sup>121</sup> Machovina et al (2015) quoted in Greenpeace, *Less is More*, 2018, p.25

<sup>122</sup> Tilman in Greenpeace, *Less is More*, 2018, p.28.

<sup>123</sup> <https://bit.ly/3DY7udH>

<sup>124</sup> [UN Guiding Principles on Business and Human Rights](#) (2011).

<sup>125</sup> [OECD Guidelines for Multinational Enterprises](#) (2011).

<sup>126</sup> However, this lack of express mention of animal welfare in the OECD Guidelines for MNEs does not preclude the possibility for National Contact Points (NCP) to interpret the current Environment Chapter in a way that it should be extended to animal welfare. For example, climate change, which is not mentioned in the Guidelines for MNEs either, has been considered “to be part of the spirit of the Guidelines” by the Dutch NCP when it accepted a specific instance related to climate change.



this.<sup>127</sup> The only documents in the field to refer to animal welfare are the OECD/FAO Guidance for Responsible Agricultural Supply Chains<sup>128</sup> – which suggests a “model enterprise policy” providing that business should strive “to ensure that the ‘five freedoms’ for animal welfare are implemented” and ensure “high standards of management and stockmanship for animal production, that are appropriate to the scale of our operations, in accordance with or exceeding OIE’s principles”<sup>129</sup> – and the OECD Guidance for Responsible Supply Chains in the Garment and Footwear Sector<sup>130</sup> – which acknowledges that some sub-sectors, such as luxury goods, sports apparel, or work apparel, face risks related to animal welfare. The International Finance Corporation (IFC) Sustainability Framework<sup>131</sup> also touches upon

animal welfare through a “Good Practice Note Improving Animal Welfare in Livestock Operations”<sup>132</sup> relying on OIE principles.<sup>133</sup>

Despite the lack of reference to animal welfare in the RBC/CSR world, there are already many examples of companies undertaking animal welfare efforts. Logically, they are mostly firms operating in the textile and food sectors – the ones facing most sustainability risks relating to animal welfare. This trend can be explained by a growing awareness and interest among consumers, but also among investors. Indeed, animal welfare is described by observers as an “increasingly important, albeit emerging issue, for investors”.<sup>134</sup>

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<sup>127</sup> Voices have been heard in favour of such an inclusion, in particular Roel Nieuwenkamp, the former Chair of the OECD Working Party on Responsible Business Conduct, who has publicly stated that he considers animal welfare should be part of the next revision of the Guidelines for MNEs” in Roel Nieuwenkamp, “[Staying ahead of the curve on corporate responsibility: Climate change, digitalisation and animal welfare](#)” (OECD *On the level*, 28 July 2018).

<sup>128</sup> OECD/FAO (2016), [OECD-FAO Guidance for Responsible Agricultural Supply Chains](#), OECD Publishing, Paris.

<sup>129</sup> *ibid.* p. 28.

<sup>130</sup> OECD, [OECD Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector](#) (2017).

<sup>131</sup> See <https://bit.ly/31ZGw8F>

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<sup>132</sup> IFC, [Good Practice Note – Improving Animal Welfare in Livestock Operations](#) (2014), p. 1.

<sup>133</sup> *ibid.*, p.21.

<sup>134</sup> See <https://bit.ly/3oTk1v1>



The responsible finance network FAIRR is unique in assessing companies across nine ESG criteria including animal welfare. According to the FAIRR Initiative, animal welfare is considered a high-risk factor for the main global animal protein producers.<sup>135</sup> Their 2016 report concluded that *“the magnitude of risks generated by animal factory farming is set to increase through rising capital costs, the shifting gravity of production to developing countries with less robust regulation, the impacts of climate change and increasing social concerns over animal welfare and sustainability.”*<sup>136</sup> Animal welfare is seen not only as a potential regulatory risk, but also as an issue that can affect public sentiment and that is connected to other important dimensions such as public health.

A recent report extracted data from the Collier Fair Protein Producer Index<sup>137</sup> – which provides a means for investors to measure and address ESG risks – looked in greater depth at 28 companies in Asia, including 13 companies located in China.<sup>138</sup>

<sup>135</sup> <https://bit.ly/3s5aymb>

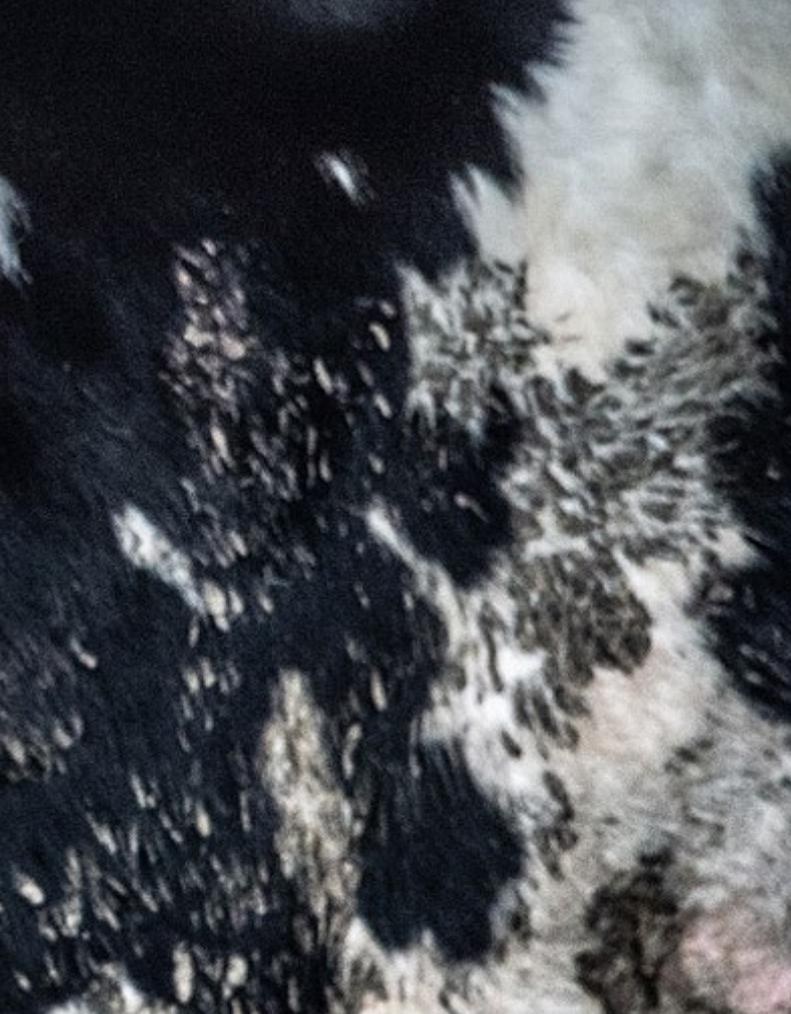
<sup>136</sup> <https://bit.ly/3oS1BMj>

<sup>137</sup> <https://bit.ly/3dM1uKG>

<sup>138</sup> <https://bit.ly/3231R0Q>

These companies represent a combined market capitalisation of USD189.75 billion (€160bn) – and yet, 26 of the 28 companies (93%), are categorised as at ‘high risk’ of ESG failures:

- **Animal Welfare** 71% have nothing to say on the importance of aquatic animal welfare.
- **Antibiotic Use** 96% are categorised as ‘high risk’ when it comes to antibiotic use, and 15 of these do not disclose any information on this at all.
- **Water management** 96% are categorised as ‘high risk’ including eight producers who provide no disclosure of how they manage water use.
- **Water pollution** 92% of companies in the Index are categorised as high risk, including seven producers which provide no disclosure on how they manage fertiliser use and manure.
- **Greenhouse Gas Emissions** 86% provide little to no disclosure on greenhouse gas emissions targets across their operations and supply chain.



- **Deforestation** 82% of companies do not disclose information on how they manage deforestation risks linked to soy.
- **Human Rights Almost** 90% of Asian Index companies do not discuss human rights due diligence processes.
- **Food Safety** 57% have at least some facilities certified by programmes recognised by the Global Food Safety Initiative (GFSI), which indicates compliance with international food safety standards.

Of the four Chinese companies highlighted in Table 1 of this report (see [page 12](#)) – Mengniu and WH Group were deemed to be better at managing risks, while Yili and Muyuan did less well.

These are, however, just four companies out of 28 and the Index indicates that even amongst the ‘best’ performers ‘best’ is a relative term since the majority of companies identified have yet to meaningfully address even the most basic sustainability risks.

## ALL RISKS ARE CONNECTED

While we tend to look at the potential risks as isolated, they are, in fact, connected. Food-borne diseases affect human health, but they also cause reputational damage to the firms involved. Previous food scandals in China have damaged the finances of multinational companies such as McDonalds and KFC,<sup>139</sup> and their suppliers.<sup>140</sup>

Likewise, forced labour practices, deforestation and pollution have the potential to damage reputations. Loss of natural resources can drive prices up making businesses less viable.

Large numbers of animals raised in small crowded spaces are a breeding ground for the kind of pathogens that can lead to pandemics.

Since 2013, there have been 570 deaths due to the H7N9 avian flu outbreak in China. A knock-on effect of this was a 46% fall in the value of the Guangzhou chicken price index between June 2016 and March 2017.<sup>141</sup>

The coronavirus pandemic has also graphically illustrated the economic risks. In 2020 the global meat sector declined in value by 5.3% a stark contrast to pre-pandemic predictions of 2.6% growth.<sup>142</sup> Pigmear saw the biggest impacts with production down by 8% and trade down by 11.2%, according to the FAO.<sup>143</sup>

Despite this, according to FAIRR, the responsible investor network, the majority of meat companies remain unprepared for future pandemics.<sup>144</sup>

In a connected world, investors increasingly have access to information to help them assess such risks and the clout to persuade the companies they fund to make improvements. Yet, awareness among investors particularly of animal welfare risks, is still a considerable barrier to sustainable, animal welfare-friendly investment.<sup>145</sup>

<sup>139</sup> <https://bit.ly/3IN2M6q>

<sup>140</sup> <https://on.ft.com/3m5z82t>

<sup>141</sup> <https://bit.ly/3dRKVNf>

<sup>142</sup> <https://bit.ly/3ETIGVC>

<sup>143</sup> <https://bit.ly/3yofP9z>

<sup>144</sup> <https://bit.ly/3dNokSf>

<sup>145</sup> <https://bit.ly/31XKfmT>

# 5

## RECOMMENDATIONS



Like fossil fuels, industrial intensive farming has now proved itself to be as harmful to animals, people and the environment. The actions of the fossil fuel divestment movement may show a way forward for those who want to see root-and-branch changes in investors' attitudes to animal welfare.<sup>146</sup>

Targeting investors has made a huge difference in the climate movement. Big players like BlackRock<sup>147</sup> have responded to public concern and activist pressure by making changes to their investment portfolios.

For these and other reasons, there still is an overall lack of ESG policies and practices, including due diligence, relevant to intensive livestock farming, amongst EU and EFTA investors.

The case study of EU investments flowing into Chinese livestock farming illustrates the high risks generated by an absence of animal welfare-related regulation around these investments. In the case of China, **incentivising higher animal welfare by imposing rules on EU investors would also be in line with consumers expectations.** A 2018 survey found that 51% of Chinese people were in favour of a law requiring farmers to treat their livestock humanely,<sup>148</sup> echoing the results of a 2011 survey<sup>149</sup> conducted by researchers at Nanjing Agricultural University, which also found strong support for new laws that would improve livestock conditions in China. In addition, 44% of respondents held negative views about Chinese animal husbandry practices. More than half expressed a willingness to pay higher prices for meat if it meant farm animals would be treated more humanely.

<sup>146</sup> <https://bit.ly/3oRIUlj>

<sup>147</sup> <https://bit.ly/3IND41s>. See also: <https://bit.ly/3DOIRRN>.

<sup>148</sup> <https://bit.ly/3yrOYSS>

<sup>149</sup> <https://bit.ly/33uHudC>

In order to address this situation, Eurogroup for Animals would suggest the following measures:

- **EU new rules on due diligence should include animal welfare within their scope.** In the meantime, European investors should perform their due diligence and ensure that ESG criteria encompasses animal welfare alongside other environmental and health concerns, and take their investment decisions based on these.
- The EU and China should continue their work on agreed terms for responsible investment,<sup>150</sup> and they should take animal welfare into account when defining responsible investments in livestock farming.
- The 2020 EU regulation on the establishment of a framework to facilitate sustainable investment,<sup>151</sup> which will take effect in phases from 1 January 2022, is a significant development in sustainable finance, creating a classification system for environmentally sustainable economic activities. To date, it has not yet addressed the case of agriculture. **Livestock farming being a significant contributor to environmental degradation and climate change, the EU should make sure that industrial farming cannot be considered as a sustainable investment under this new EU Green Taxonomy.**
- The EU and China should integrate in their Comprehensive Agreement on Investments (CAI) a mechanism to address situations where investments favoured under the agreement hinder the needed transition towards more sustainable and resilient societies.
- **The EU should promote the inclusion of animal welfare** in the concepts of Responsible Business Conduct (RBC) / Corporate Social Responsibility (CSR) at international level, for instance if the OECD guidelines for Multinational Enterprises were to be reviewed.
- The EU and China should establish a cooperation mechanism on animal welfare, either under the working group on sustainable food systems announced at the occasion of the latest EU-China Agricultural Dialogue, or as a standalone project.
- The EU should foster a reform of the ESG principles of multilateral development banks where the EU and/or its Member States have shares, to include adequate animal welfare standards. In banks where the EU and/or its Member States represent the majority of shareholders, the EU should push for the ESG principles to include the respect of EU-equivalent animal welfare standards – as is the case with the European Bank for Reconstruction and Development (EBRD). Such standards should become a basis for the evaluation of projects within the EU and globally, both in terms of direct and intermediate funding.

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<sup>150</sup> <https://bit.ly/3DV51B5>

<sup>151</sup> <https://bit.ly/3DY7udH>



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