

# HOG FARMING IN CHINA – STRUCTURAL CHANGE AND ITS IMPACT ON COMMERCIAL FEED DEMAND

Jurgen Hijink  
Hijdeporc consultancy

Presentation for the

 agri benchmark WebConference 2021



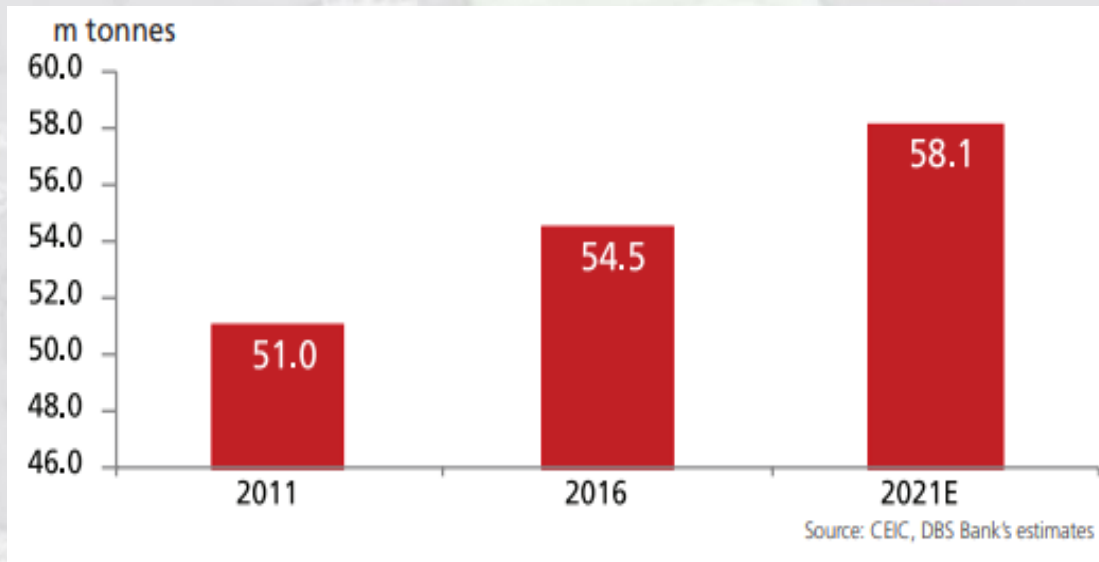
# EAST MEATS WEST



A drone image shows newly built multi-storey pig farm in Neixiang county. (Muyuan Foods Co via Reuters photo)

# EVOLUTION CHINESE PORK CONSUMPTION

Total Chinese Pork Consumption



Chinese per Capita Pork Consumption

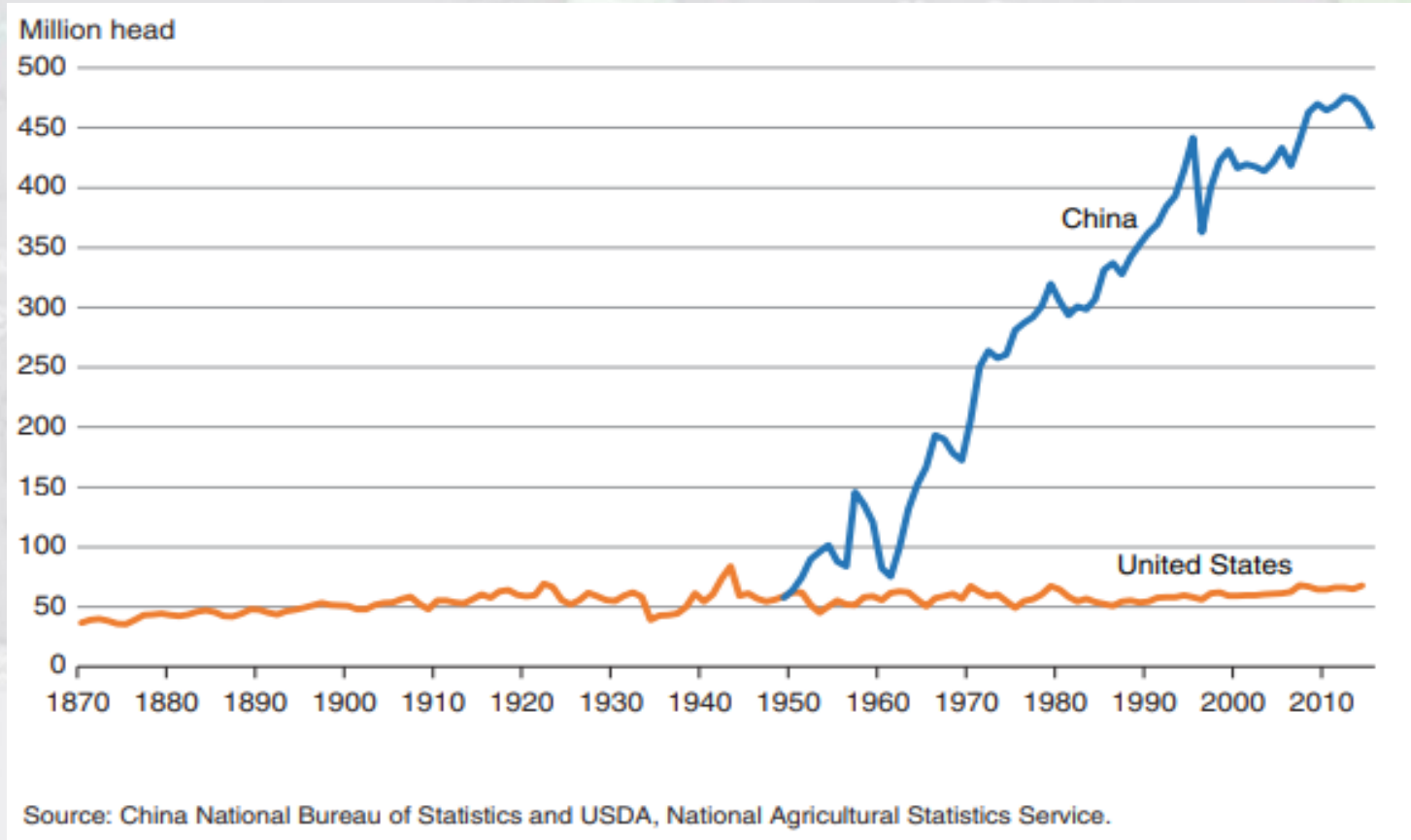


1. Total consumption goes up by app. 1 million t p.a.
2. Per capital increase is a main driver
3. For comparison: Current Dutch figure is app. 33 kg/head



# PUT CHINESE DEVELOPMENT INTO PERSPECTIVE

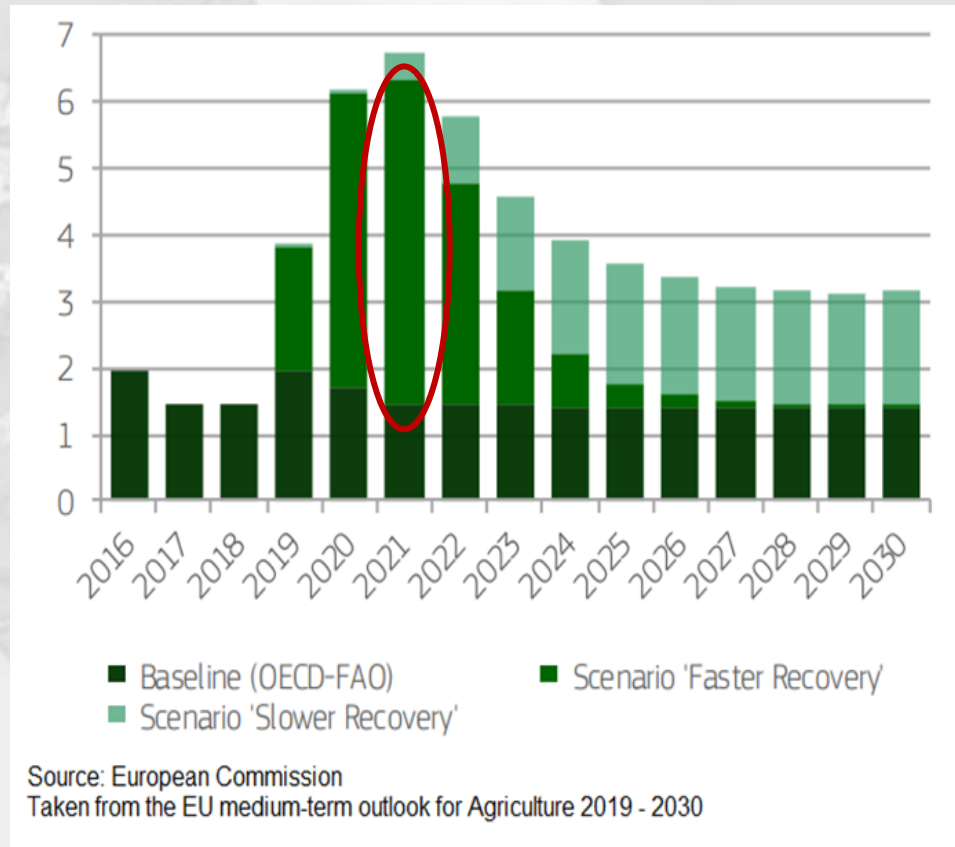
Evolution Pig Herd USA vs. China



**Enormous growth of Chinese pig production since 1950**

# CHINA AIMS FOR SELF-SUFFICIENCY IN PORK PRODUCTION

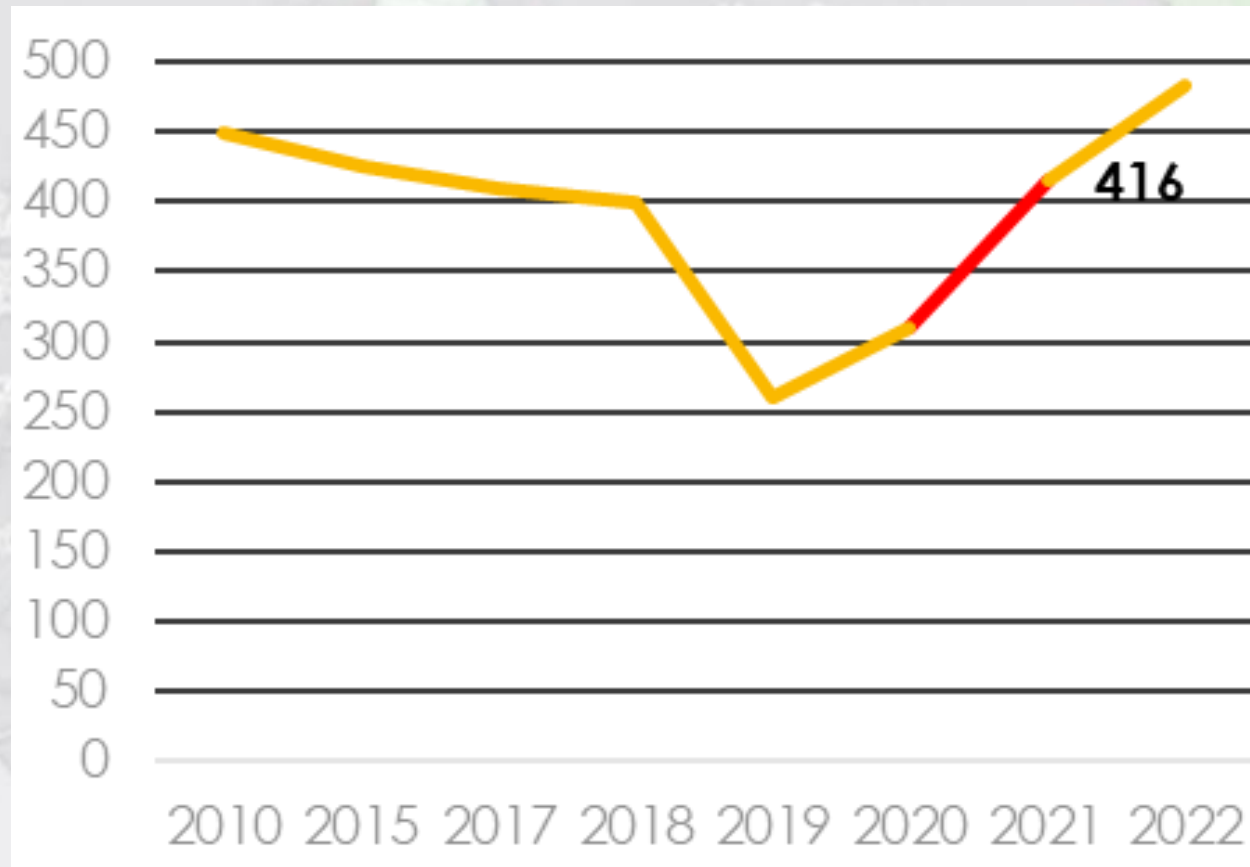
Chinese Pig meat Imports (million t)



1. ASF boosted imports (almost 4-fold)
2. Most likely, back to normal in 2026

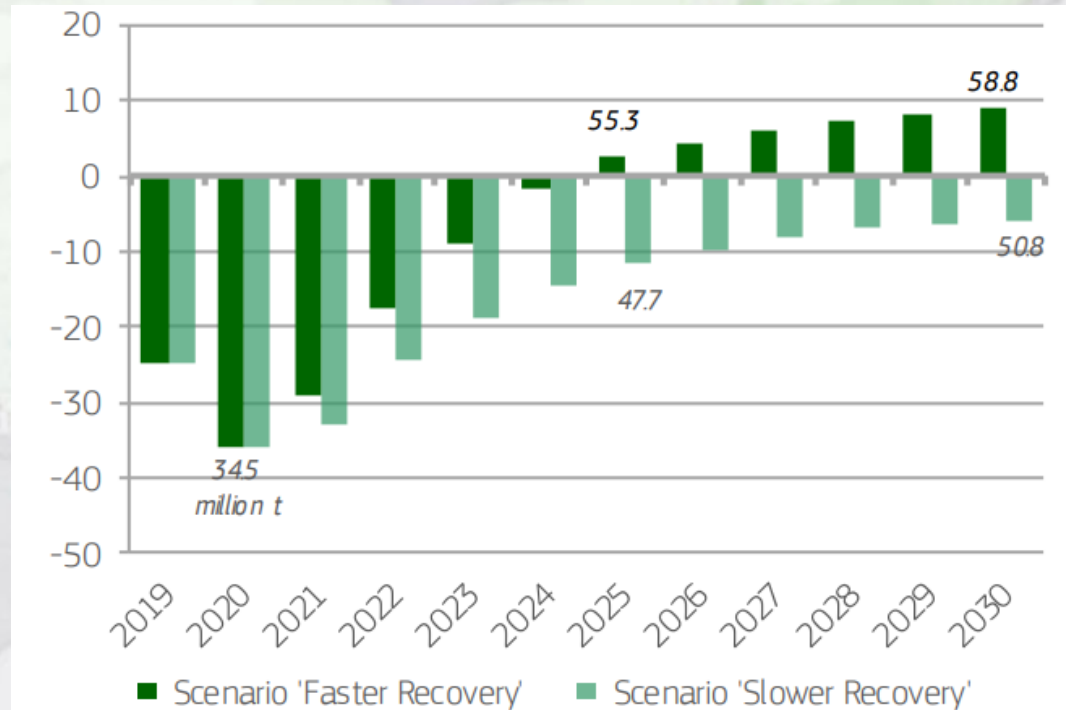
# PIG PRODUCTION RECOVERS (QUICK)

ASF Impact on Chinese Pig Herd – and Recovery...



# ASF: MASSIVE DIP CHINESE PIG PRODUCTION – BUT A QUICK RECOVERY AHEAD?

Pig Meat Production in China (% vs. 2018)



2018: 54 million t pig meat

Source: European Commission  
Taken from the EU medium-term outlook for Agriculture 2019 - 2030



# EXAMPLE: HOW CHINA RAMPS UP PORK PRODUCTION

- Establishment took 7 (!! ) month (in 2017)
- 3 times 1000 sow unit's,
- 1 time 500 sow unit.
- 90.000 piglets annually.
- Investment of 25 million Euro.

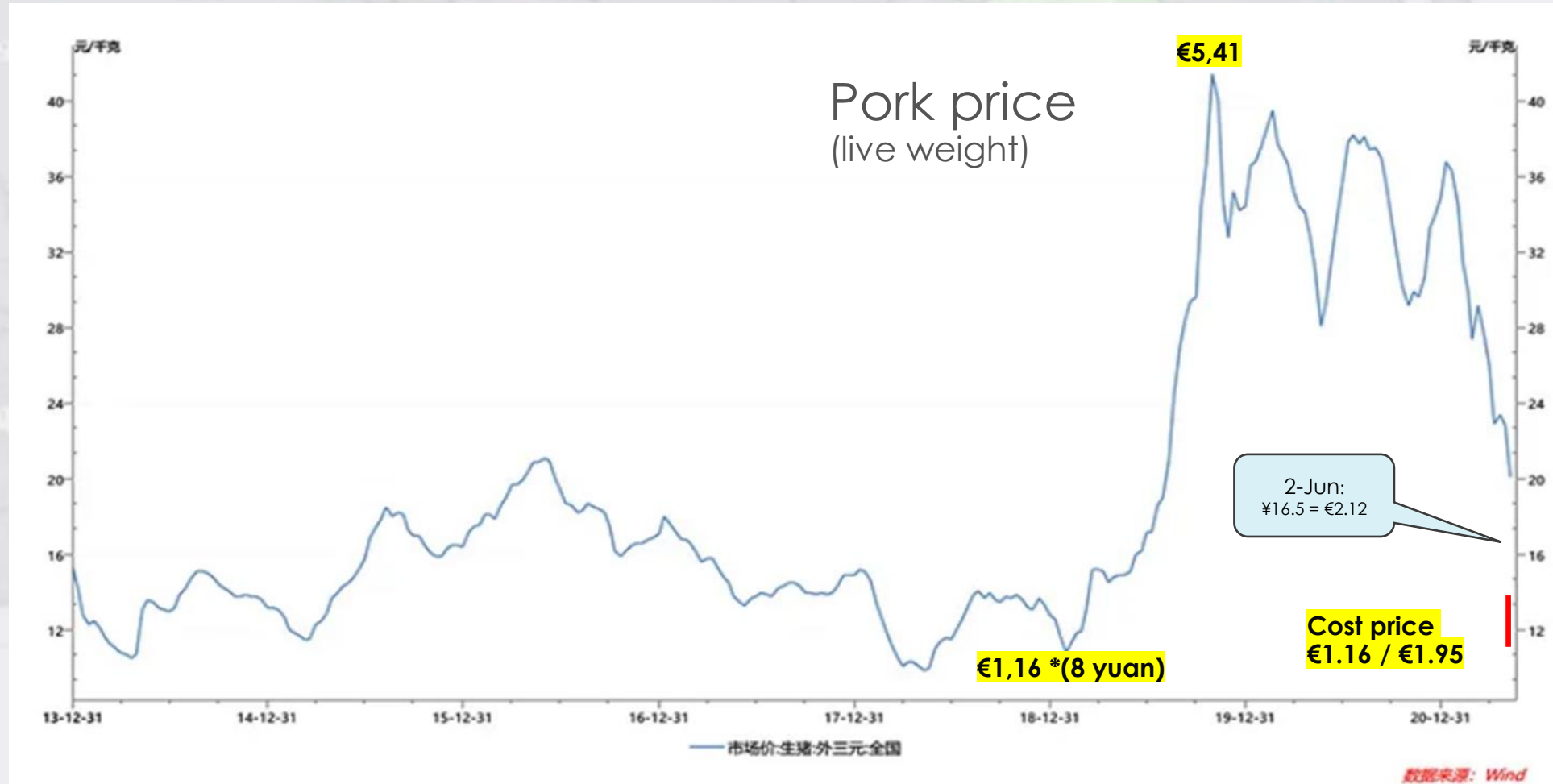
Many more such projects

**Beipiao project, Dasanjia City, Liaoning**





# CAN THE INDUSTRY SURVIVE?

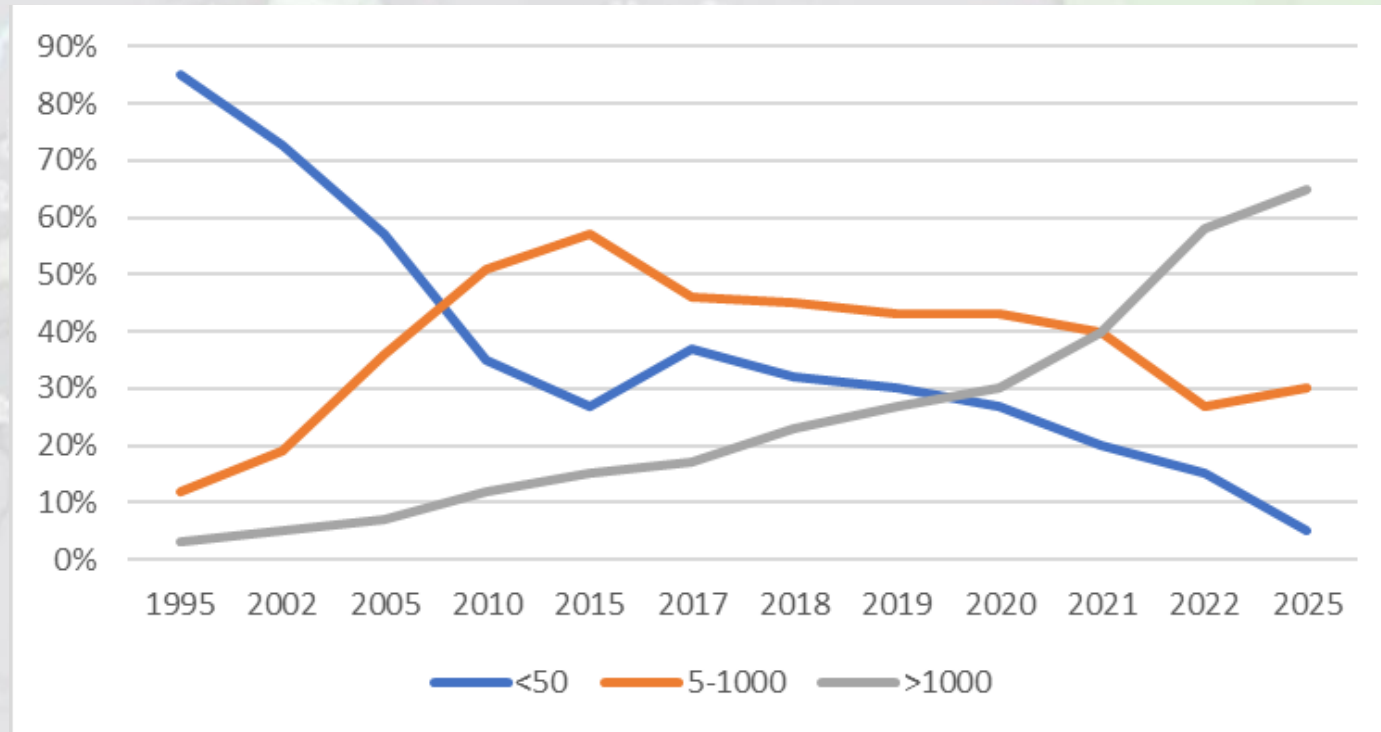


Massive investments when pork prices were extremely high – afterwards massive price drop (- 60%)

Question: Are these mega farm profitable at these price levels?

# MASSIVE CHANGE IN PIG FARM STRUCTURE

Share of pigs in different size classes



1. Until 1995 backyard producers dominated Chinese pig production
2. By 2025 the bulk of output will come from highly specialized, industrial producers

# IMPACT FROM MODERNISING FARMS

Key Performance Indicators Chinese Pig Production (2012)

	Farm size (head/year)				Mean
	1--9	10--49	50--499	>=500	
FCR	3.99	3.03	2.90	2.73	2.99
Length of feeding period (days)	197.0	162.0	159.1	153.6	184.6
Total feed(kg) <sup>a</sup>	527.6	383.0	372.3	331.5	476.5
Starting weight (kg) <sup>b</sup>	7.6	7.0	7.1	7.0	7.4
Selling weight (kg) <sup>c</sup>	118.9	113.9	118.8	116.9	117.6

Source: Author's survey.

Source: Wang-Feeding China Pigs-938

The smaller the farms, the lower the KPI's.

**In 2021:**

Chinese sows produce 16 slaughter pigs per year (690 million pigs).

In Western Europe 1 sow produces 28 slaughter pigs per year.  
Will China be able to catching up?



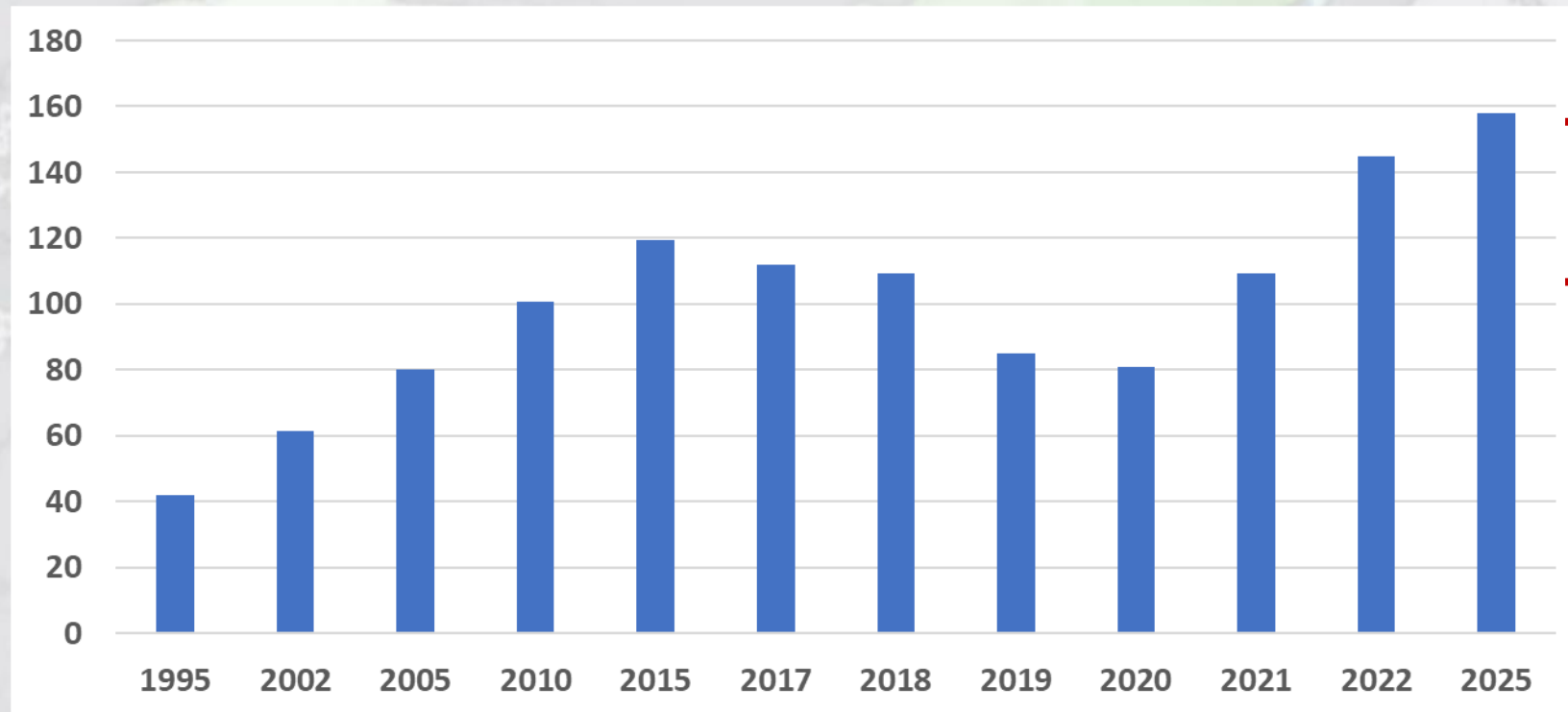
# IMPACT PRODUCTION SYSTEMS ON CORN/WHEAT CONSUMPTION

Number of pigs per farm	<50	5-1000	>1000
Feed conversion rate	3,5	2,9	2,7
total feed intake (kg)	450	372	330
days feeding	180	159	150
% wheat/corn in feed	20%	50%	65%
kg wheat/corn per pig	<b>90</b>	<b>186</b>	<b>215</b>

**Shift to more industrial production implies to more than double the wheat/corn consumption per pig**

Source: Author's calculation

# STRUCTURAL CHANGE WILL BOOST FEED DEMAND (IN MILLION TON)



**+ 40 million t  
(+40%)**

**Assumption: by 2025 backyard production will contribute 5%, medium systems 30% and industrial systems 65%**

Source: Author's calculation

# BOTTOM LINE



- 1. Chinese government is promoting heavily the structural change in pig production at a very high speed.**
- 2. This shift implies a shift in feed usage – substitution of traditional feedstock (e.g. food waste) by corn and wheat.**
- 3. This shift implies a massive increase in corn and wheat demand, most likely the current spike in corn imports is already driven by this trend.**



THANK YOU FOR YOUR ATTENTION

