

# Meat production and consumption in world

TBIR

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# Outline

 Global meat production -- Di Cui

 Meat production by livestock type -- GuanRu Chen

 Per capita meat consumption -- Yunzhi Chen



# Introduction

Feeding the world in a sustainable way is one of our most pressing challenges in the coming decades. Meat plays a pivotal role in this.

Meat is an important source of nutrition for many people around the world. Therefore, global demand for meat is keep growing: over the past 50 years, meat production has more than tripled. The world now produces more than 340 million tonnes each year.

The data set was obtained from the "Our World in Data" data base and contains the following variables regarding to meat production of the world:

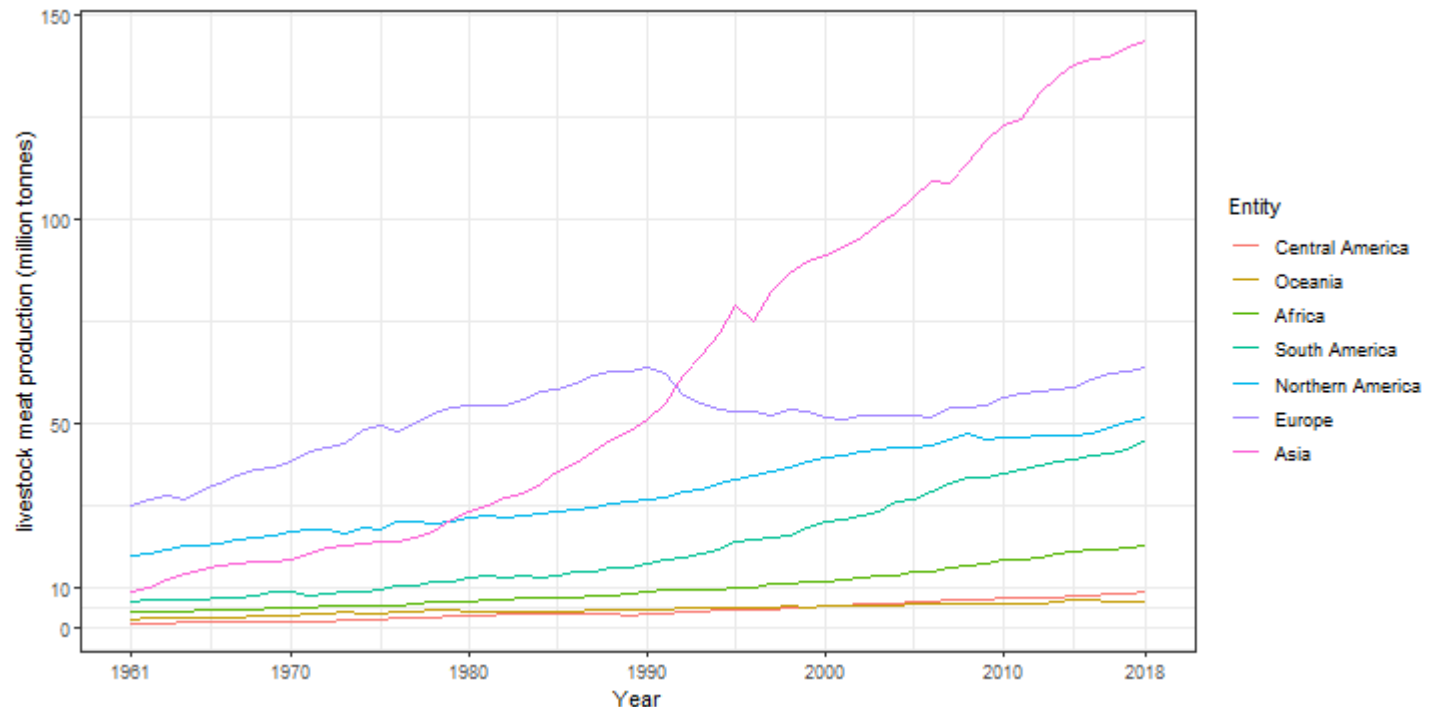
- Country
- Year
- Amount of production: Measure in tons.
- Livestock types: including beef and buffalo, pigmeat, poultry, sheep and goat, and other meat types such as horse or camel et cetera.
- Meat type consumption (kg/capita/year).

# Global meat production

# Research Questions

- How did the global meat production develop by continents?
- How did the meat production develop in countries which contributed greatly?

# How did the global meat production develop by continents?



Global meat production from 1961 to 2018

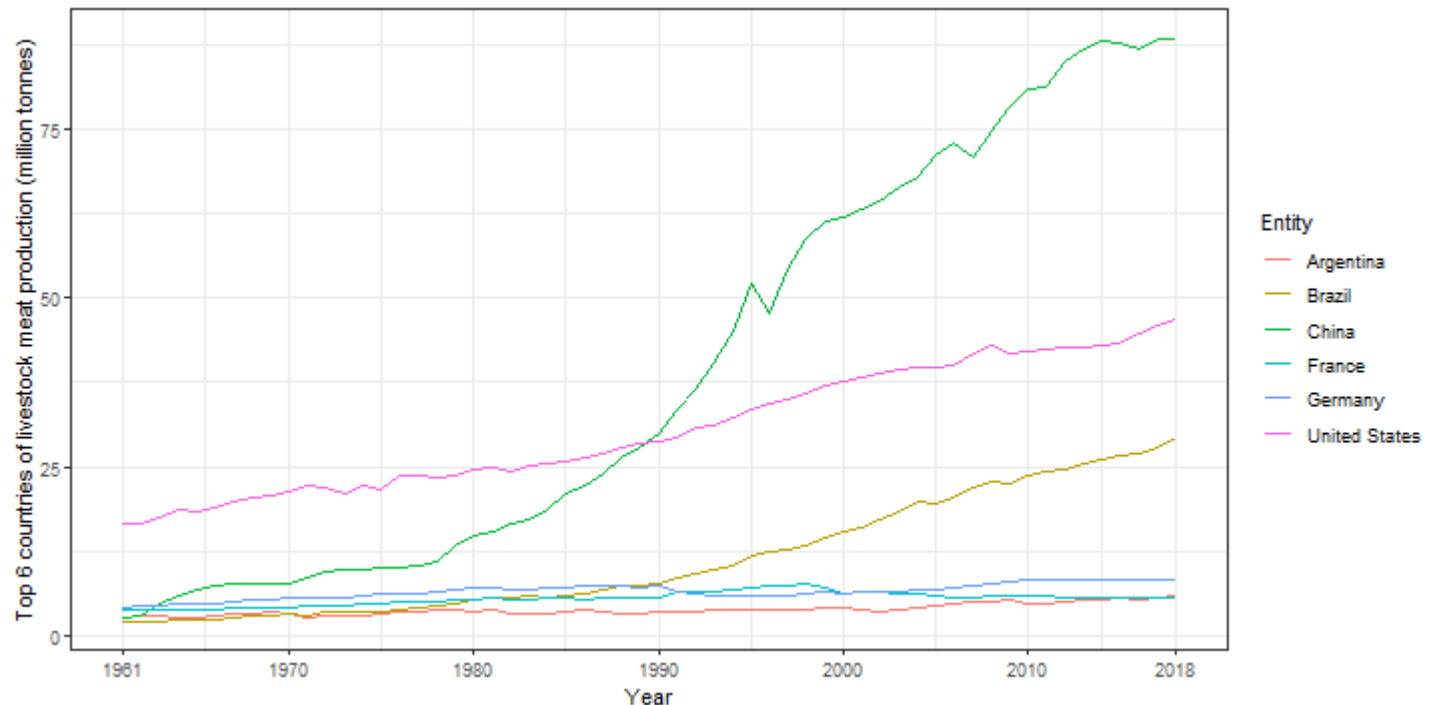
- Asia has been the largest meat producer since 1992.

### Comparison between 1961 and 2018

Entity	Year1961	Year2018	P1961	P2018	times
Asia	9.05	143.71	12.75	42.12	14.88
Europe	30.00	63.85	42.25	18.72	1.13
Northern America	17.99	51.73	25.34	15.16	1.88
South America	6.52	46.12	9.18	13.52	6.07
Africa	3.91	20.17	5.51	5.91	4.16
Central America	1.23	8.89	1.73	2.61	6.23
Oceania	2.30	6.69	3.24	1.96	1.91

- Meat production in Asia has increased around **15** times, accounting for around **43%** of total global meat production.

# How did the meat production develop in countries which contributed greatly?



Top six countries' meat production from 1961 to 2018



### Comparison between 1961 and 2018

Entity	Year1961	Year2018	P1961	P2018	times
World	71.36	342.42	100.00	100.00	3.80
China	2.55	88.16	3.57	25.75	33.57
United States	16.51	46.83	23.14	13.68	1.84
Brazil	2.12	29.34	2.97	8.57	12.84
Germany	4.24	8.19	5.94	2.39	0.93
Argentina	2.60	5.93	3.64	1.73	1.28
France	3.69	5.62	5.17	1.64	0.52

-The world's meat production has around quadrupled.

-China has increased about 34 times.

**Although these Entities have increased, their proportion has changed a lot. In 2018, Asia and China cover a large proportion of the global meat production.**

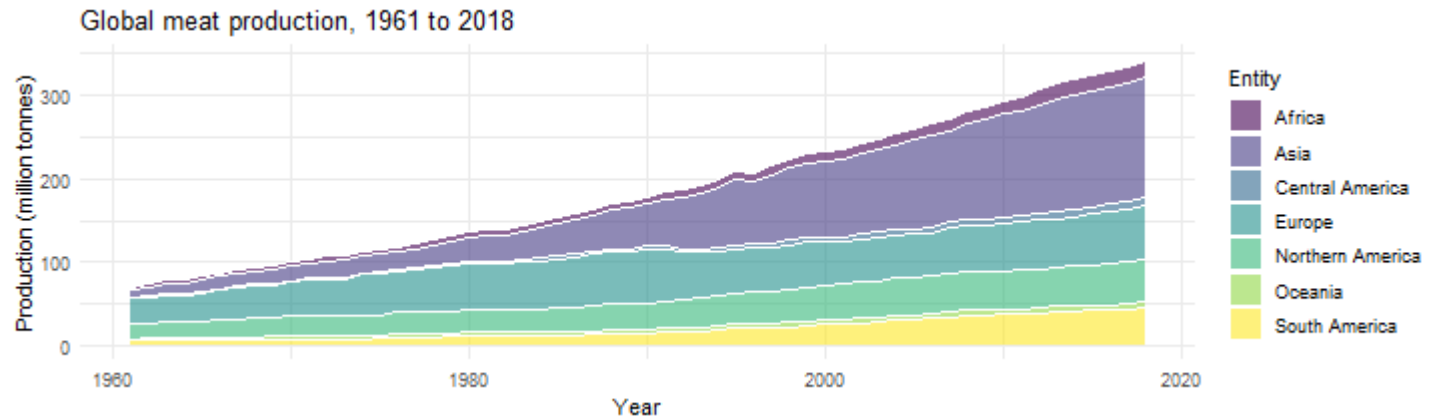
# Meat production by livestock type



# Research Questions

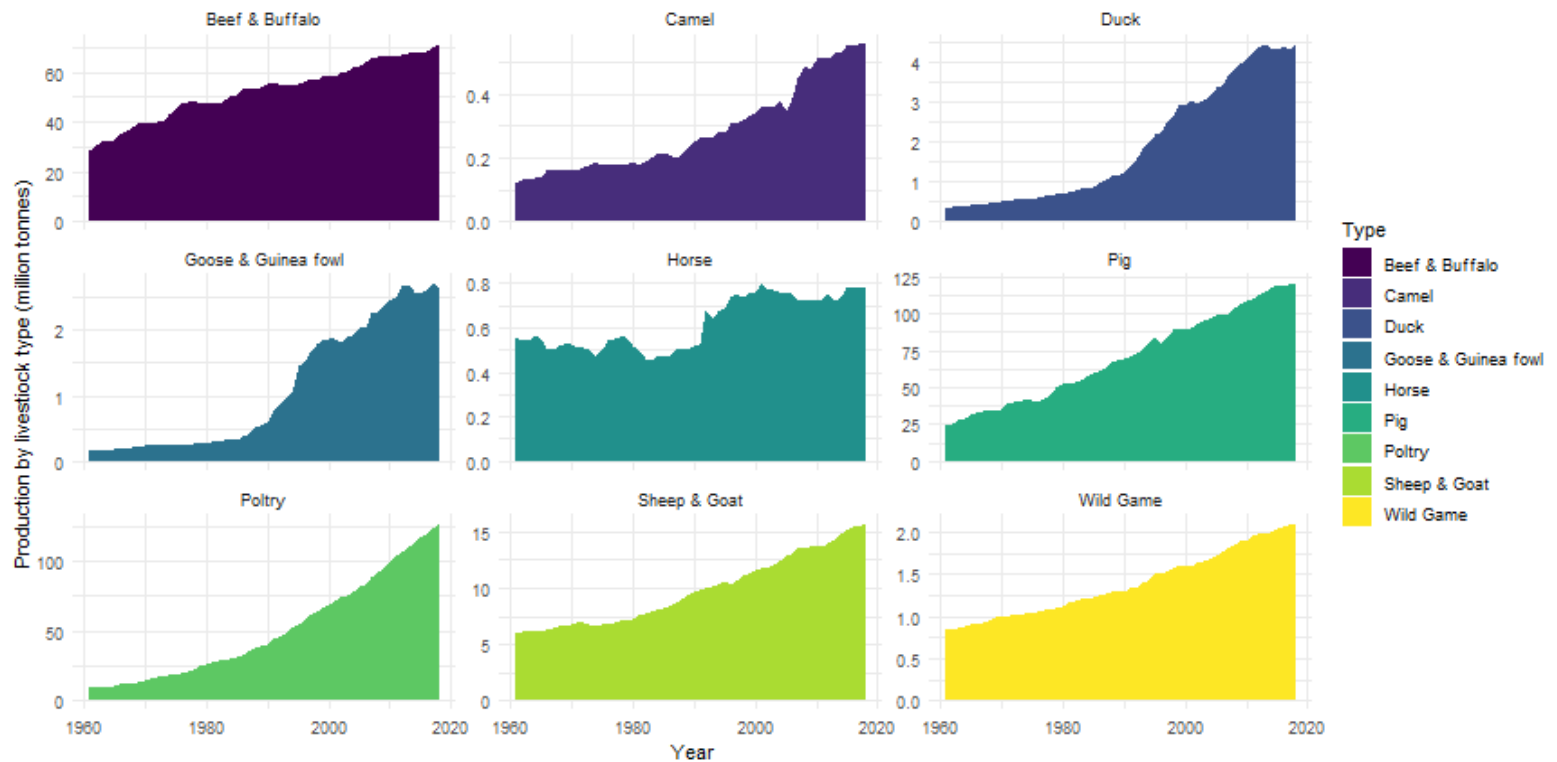
- What's the production distribution of different livestock types across the world?
- Which countries are main production country for different types of meat, such as: Beef and buffalo, pig and poultry?

# What's the production distribution of different livestock types across the world?



Global meat production by livestock type, 1961 to 2018

In first figure, we see that the **dominant livestock types are poultry**, cattle (which includes beef and buffalo meat), pig, and sheep & goat to a lesser extent at global level.



Meat production by livestock type, 1961 to 2018

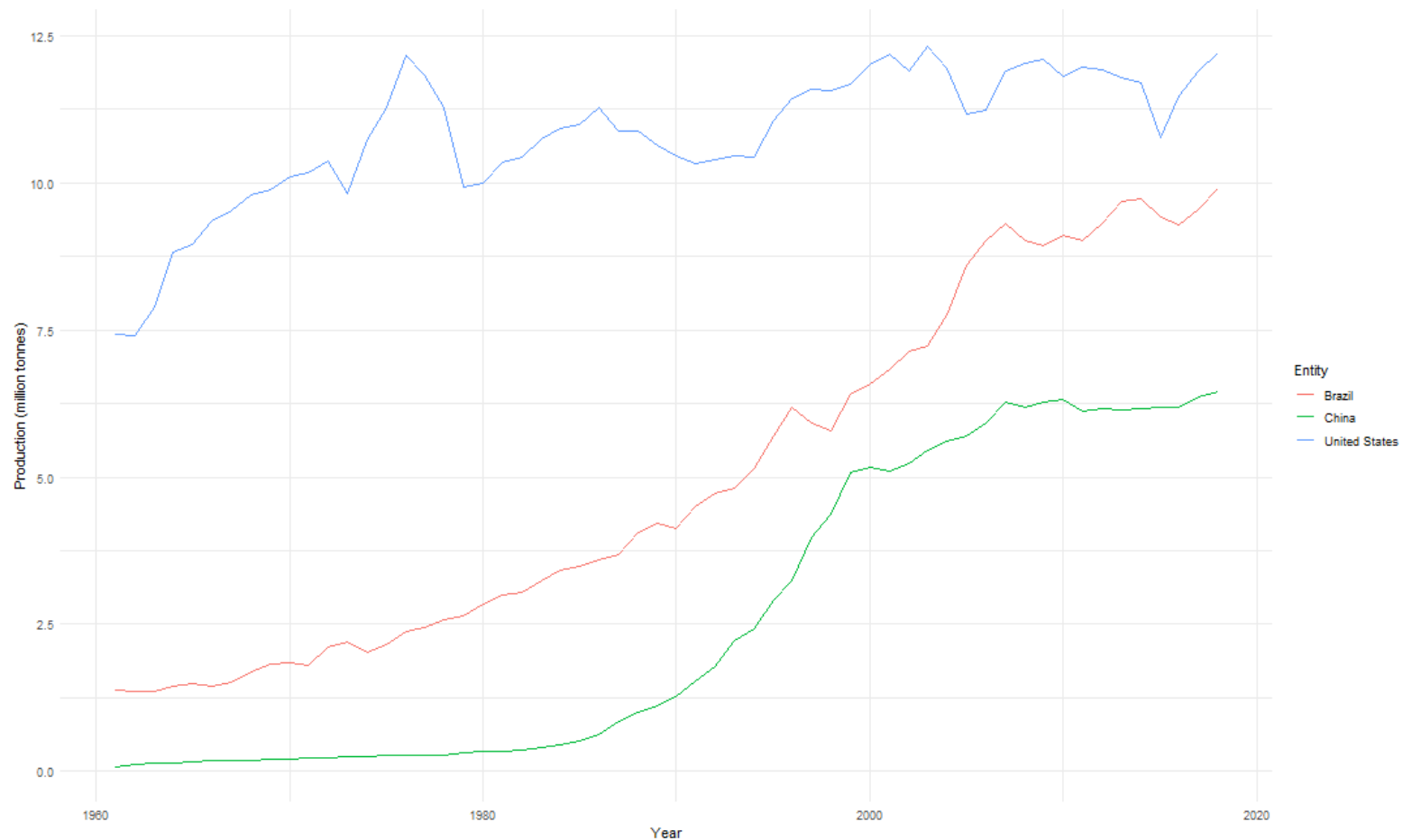
From second figure, we can see the production of all major meat types have been increasing. But **the share of global meat types have changed significantly**.

- In 1960s poultry meat accounted for small portion; by 2010s its share has tripled.
- Beef and buffalo meat as a share of total meat production has nearly halved.
- Pig meat's share has remained more constant.

**Which countries are main production country for different types of meat, such as: Beef and buffalo, pig and poultry?**

## Beef and buffalo (cattle) meat production (million tonnes), 1961-2018

Entity	Production
World	3048.30
Americas	1355.77
Europe	808.42
Northern America	687.74
United States	627.73
South America	568.55
Asia	527.12
European Union	494.53



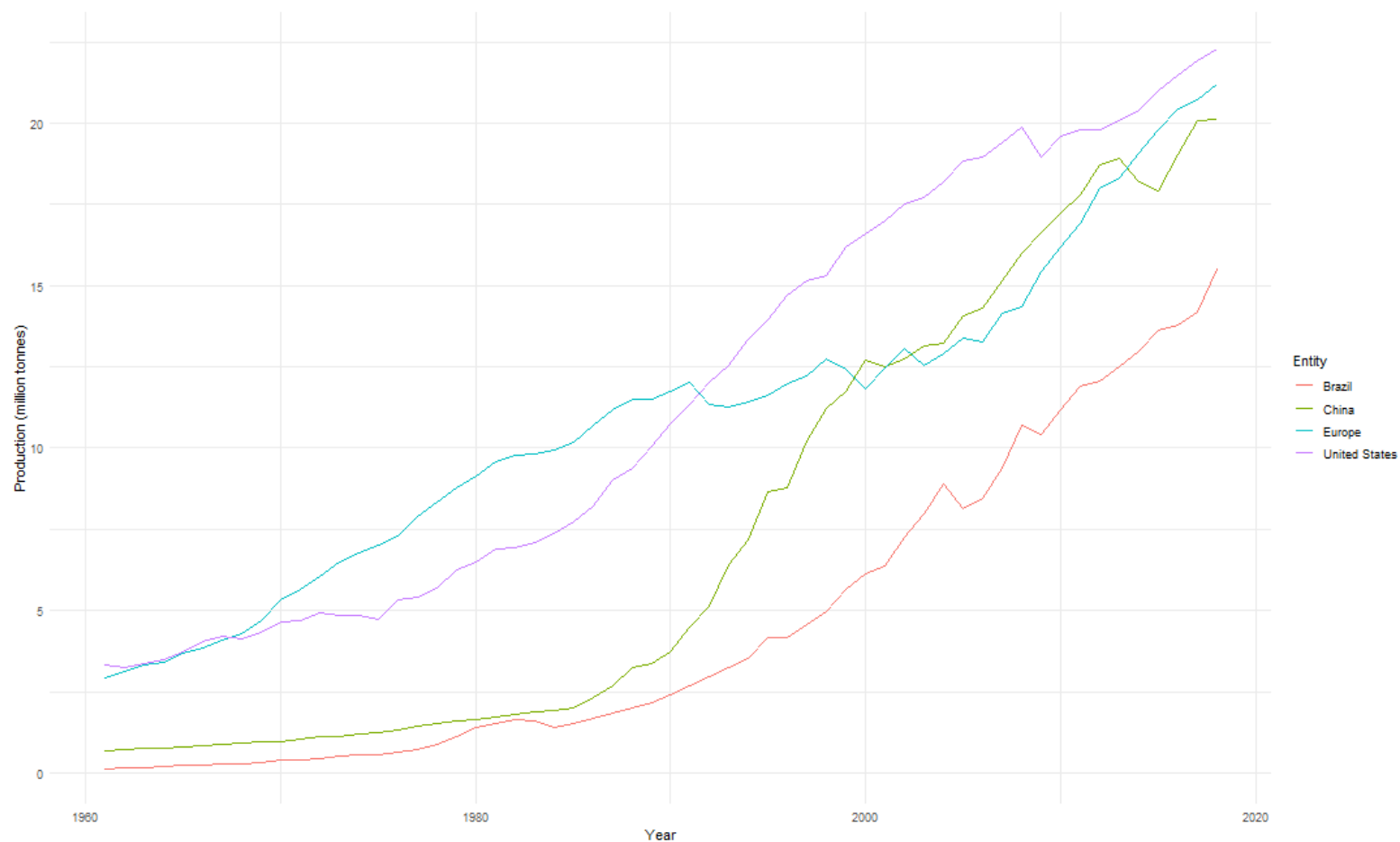
Cattle production, 1961 to 2018

In first table, we see the global production of cattle (beef and buffalo) meat. From country's perspective, **The United States is the world's largest beef and buffalo meat producer**. Other major producers are Brazil and China.



## Poultry meat production (million tonnes), 1961-2018

Entity	Production
World	2971.53
Americas	1247.97
Asia	925.59
Northern America	714.31
United States	669.00
Europe	628.97
Eastern Asia	514.42
European Union	476.77

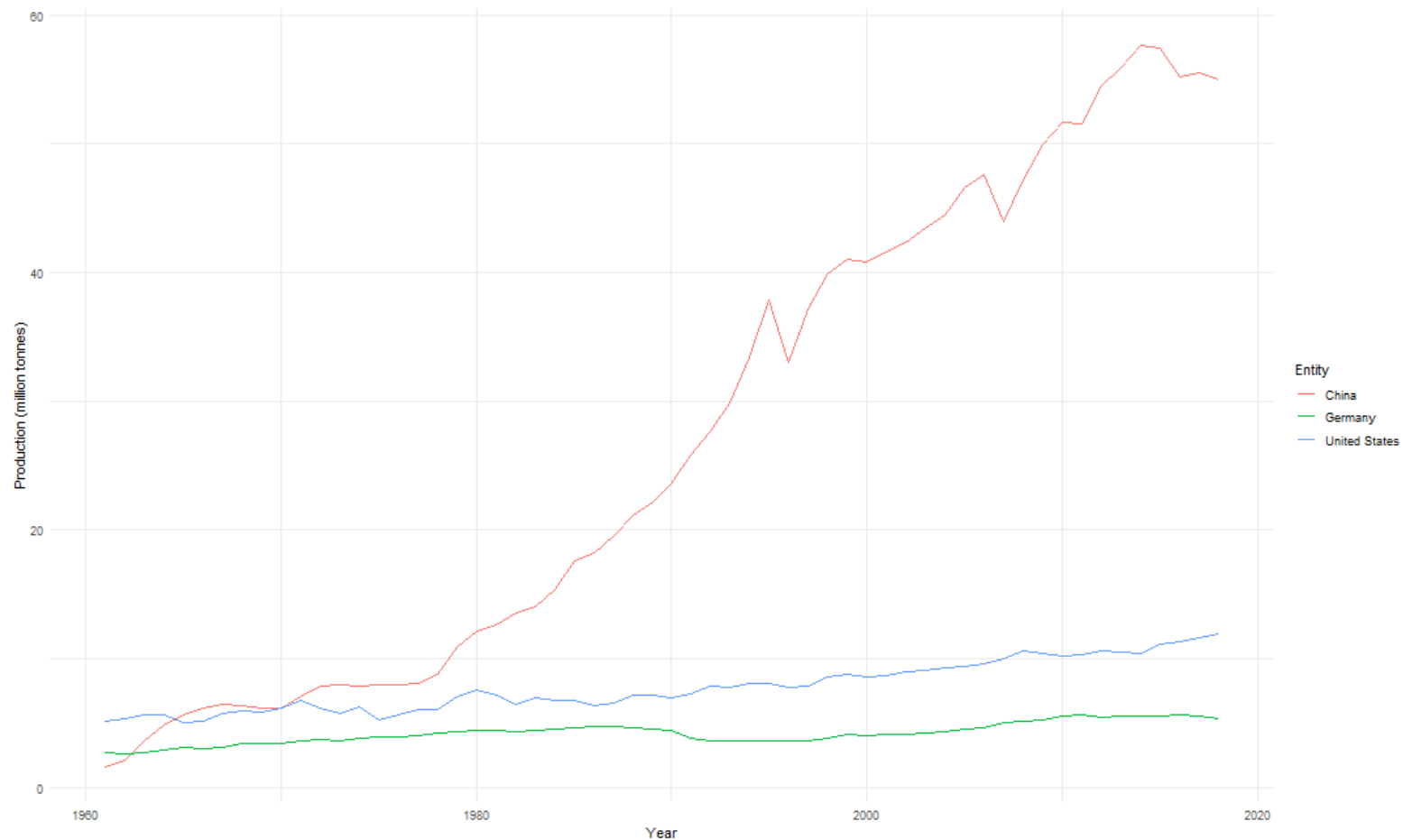


poultry production, 1961 to 2018

In second table, we can see the production of poultry, like cattle production, **the United States is still the world's largest producer**. China and Brazil are also large poultry producers. Collectively, Europe is also a major poultry producer, just below the United States.

## Pig meat production (million tonnes), 1961-2018

Entity	Production
World	4097.38
Asia	1898.60
Eastern Asia	1669.83
China	1560.96
Europe	1381.51
European Union	1058.78
Americas	757.20
Northern America	523.61



pig production, 1961 to 2018

But for pigmeat production , **China dominates global output, producing just short of half of total pigmeat.** The other major producers include the United States, Germany.

# Per capita meat consumption



# Research Questions

- Which countries eat the most meat in the last 20 years?
- What types of meat do people eat?

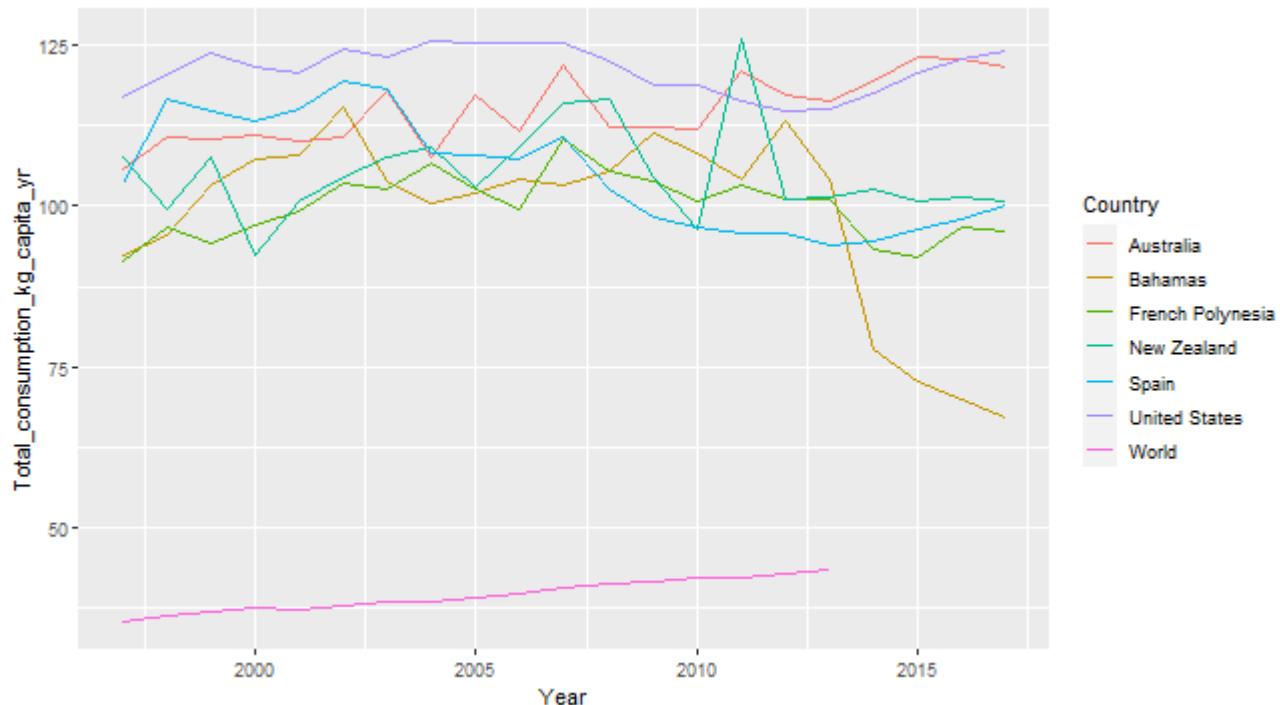
# Which countries eat the most meat in the last 20 years?

Top 6 countries with the largest mean of meat consumption over years

Country	Mean_consumption_kg_capita_yr
United States	121.19
Australia	114.96
New Zealand	105.19
Spain	105.14
French Polynesia	99.86
Bahamas	98.57

- The top six countries are the United States, Australia, New Zealand, Spain, French Polynesia and Bahamas.

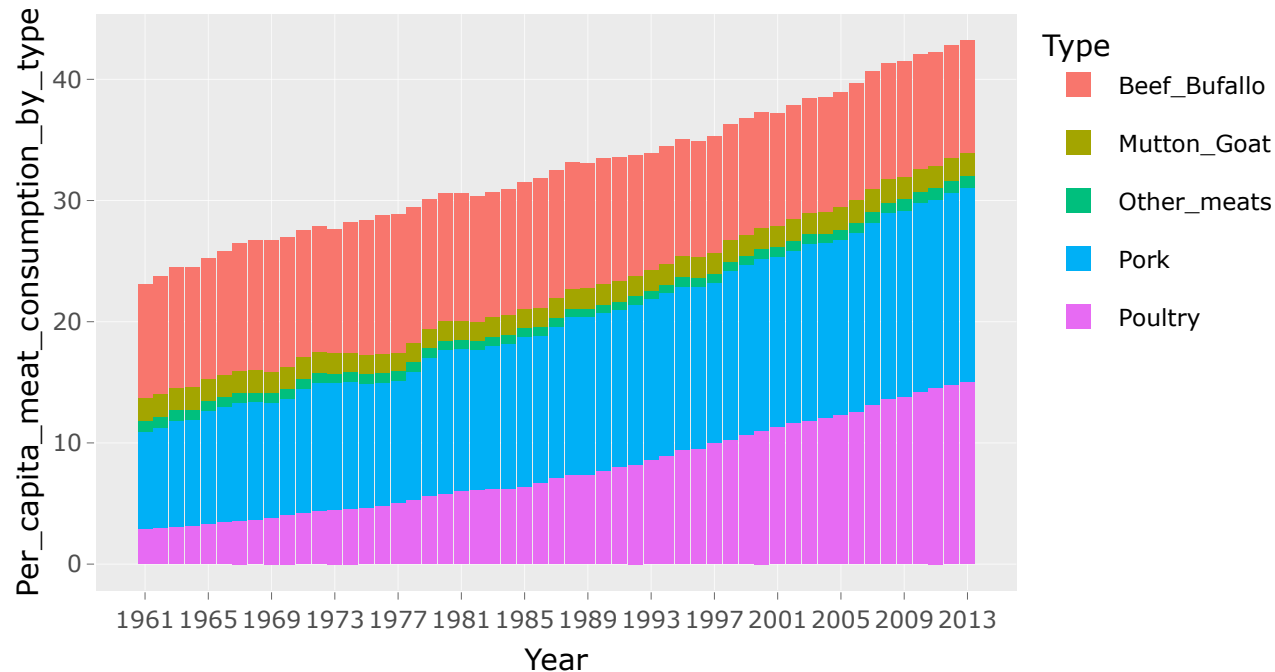
# Which countries eat the most meat in the last 20 years?



- Considerable fluctuation trends, overall downward trends except Australia and the United States.
- Total value is much higher than the world consumption.



# What types of meat do people eat?



- Pork has the highest per capita consumption of meat commodities.
- In 2013, pork: 16 kg; poultry: 15 kg; beef & buffalo: 9 kg; lamb & goat: 2 kg; and only a small percentage of other meats.



# Conclusion

- In 2018, production was around 340 million tonnes. And Asia and China have contributed greatly to global meat production.
- The amount of meat produced for a given animal varies significantly across the world based on production systems.
- Richer countries tend to consume more meat per person. Developed countries account for a large share of the six countries with the highest average meat consumption in the last 20 years.
- The average person in the world consumed around 43 kilograms of meat in 2014. This ranges from over 100kg in the US and Australia to only 5kg in India.
- Although there is a lot of fluctuation, the amount of meat consumed per capita is much larger than the world average.
- At the world level, per capita consumption of pork is the highest among meat commodities over years.

# Question & Answer