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Impact of global developments upon the European Animal By-Products Industry

How to capitalize the opportunities?

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Rabobank International

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Rethinking the F&A Supply Chain

Impact of Agricultural Price Volatility on Sourcing Strategies

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Where's the Bee?

US Protein Production to Decline Sharply in 2012

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Meat and poultry production in the US is headed for a precipitous fall in 2012. The long-term structural downturn in the cattle herd is being exacerbated by extreme drought in the South and Southwest. The chicken industry is suffering probably its worst-ever downturn in profitability, which is cascading production cutbacks. Profitability in the pork industry has so far been holding steady as rising hog prices have substantially offset a dramatic increase in feed costs, but there are some early signs of increased sow slaughter as the industry comes to grips with some of the tightest corn supplies in history. Rabobank believes that US meat and poultry production could decline by nearly 5 percent year-on-year by mid-2012. Overall, Rabobank expects global protein supplies to tighten further in 2012 as production lags behind GDP growth. Barring major economic disruption, Rabobank believes that this will lead to another year of record prices in most markets for most proteins around the world.

Introduction

The dramatic decline in United States (US) protein production will likely have a significant impact not only on price, but also on availability, which could create concerns for buyers such as foodservice operators and retailers (see Figure 1). Since the US is a large and significant exporter of meat proteins, the decline will also affect world markets as well as demand for feed, notably for corn.

This report examines the national impact and global perspectives for each of the three key US protein sectors, setting aside the impact of the drought on the US cattle herd for the moment. The big picture is that global meat and poultry production is in the midst of a multi-year process of adjusting to higher and more volatile feed costs. We believe that terms prices for key protein-production inputs such as corn and soybeans will gravitate towards the incremental cost of production, which we estimate to be near USD 5/bushel and USD

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The Return of Animal By-Products

Is the Carcass Valuation in the Meat Industry Reversing?

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- 2 Is the shift in carcass value permanent?
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Introduction

From ancient times right up to the present, mankind has endeavoured to use all parts of the animal carcass. Besides the main applications of providing food and clothing, other parts of the animal have been used in furniture, equipment, and even weapons. With the intensification of animal production and the introduction of rendering and other processes, the use of the animal carcass has further evolved into many other applications in the pharmaceutical, cosmetic, household and industrial industries. The possible applications of the 19th quarter's lean wastes and continue to offer opportunities to increase the value of the total carcass. However, the fast rising economic welfare in developing countries, namely China, which has a clear preference for 19th quarter products, further increases the demand for and value of these products.

In addition, consumer demand for processed meat products has been rising in developed countries due to preferences for convenience and consumers trading down to less expensive processed meats. As a result, value within the carcass is shifting from the prime meat cuts to the processing cuts and 19th quarter products. We believe this shift is structural, creating both opportunities and consequences for meat processors.

Optimizing the valuation of the carcass, the challenge for the meat industry

An animal enters the slaughterhouse in one piece and is disassembled into four quarters, which together are known as the dressed carcass, and contain the main cuts of both prime (e.g., top, loin, belly and rib) and processing (e.g., shoulder, picnic, chuck and plate) meat. The dressed carcass, or the meat and the skeleton of an animal, makes up about 60 percent of the live carcase weight and around two-thirds of the live weight for pigs (see Figure 1 and 2).

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Rabobank Pork Quarterly

Outlook for Global and Regional Markets

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Q1 2013

- The **Rabobank forecast** finished hog price index continued to decline as supply is balanced with demand globally.
- Trade is hampered by numerous import bans announced in the previous quarter.
- Prospects for 2013 are promising due to expected production declines in China and the EU.
- The pace of pork demand growth across the globe remains the key success factor for industry margins in the remainder of the year and if inflationary pressure upon economic growth in the developing world.
- With China increasing its impact on global pork markets, the seasonal price peak seems to be shifting from 1H to 2H.

Global overview

The global pork sector has experienced a stable first quarter in 2013, with supply and demand more or less in balance, resulting in stable prices for the Rabobank five-region finished hog price index. This stabilisation, in combination with the slow downward pressure of feed prices and the adjustment of most sales contracts to the new price level—and despite the relative inelastic demand development—gave the industry momentum to regain part of the margin lost in the last couple of years. However, at the farmer level, the lower than expected hog prices limited the earlier optimism of margins where it was hoped for.

Especially in China, the EU and Russia, pork prices dropped due to the increased availability which more than offset the slow decreasing demand. In China, production recovered more quickly than earlier forecast, while in the EU the expected production decline did not commence as productivity continued its steady growth and exports slowed due to the strengthening of the US dollar. In Russia, new reports and higher imports resulted in surging supply. From stabilised in the EU, pressure by the declining demand and exports, while in Brazil an unexpected increase was experienced in January, followed by a lower than former seasonal decline (see Figures 1 and 2).

For Q2-Q3 2013, the already difficult market will be further hampered by the numerous import bans that started the industry in Q1 2013. Without questioning the legitimacy of these trade distributions, these will further limit possible upside of the market, which is characterised by the combination of inelastic demand and rising supply. The only positive note is that herd expansion will be

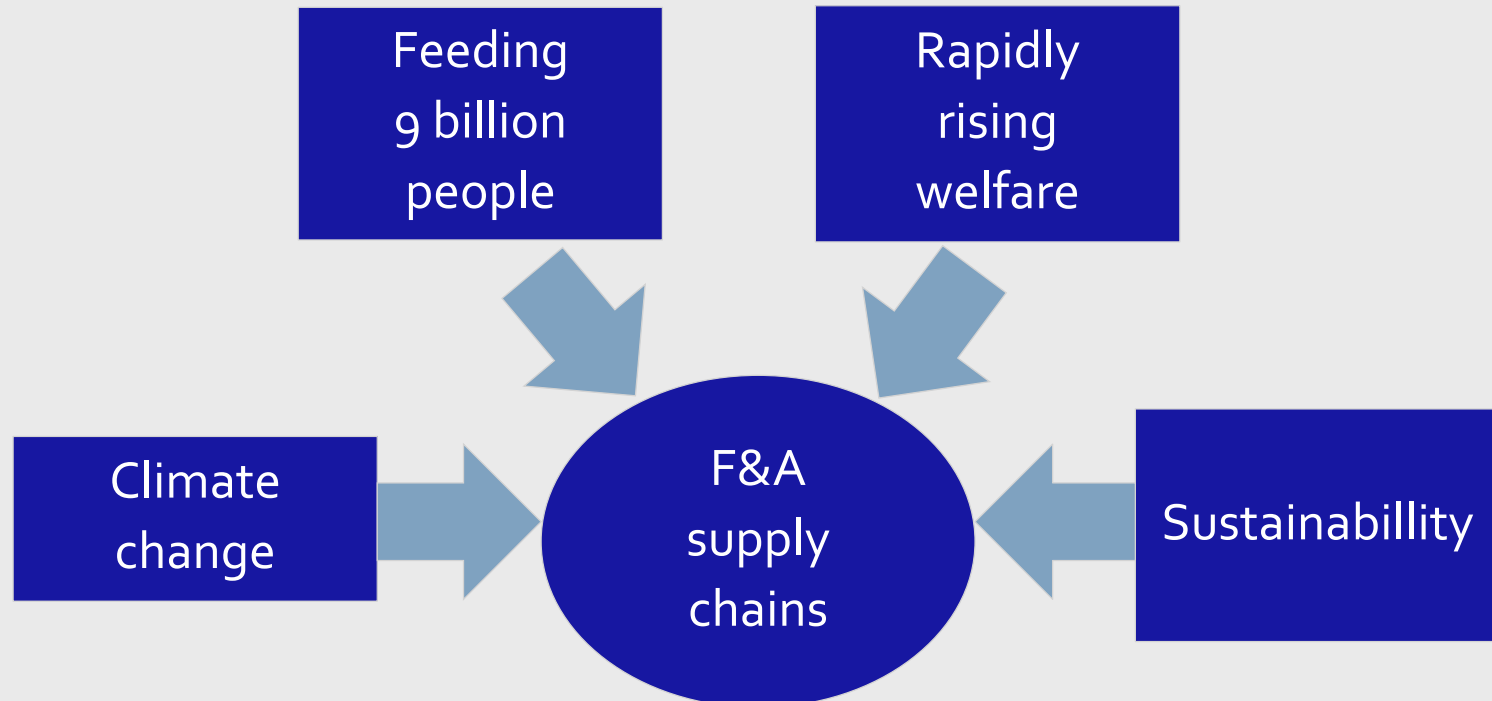
postponed or held up even decline, which together with the forecast declining feed costs, will likely result in better margins at both the farmer and industry levels.

Especially in the Northern Hemisphere, both domestic and export cost demand is the determining factor in the coming months. In the EU, consumers are increasingly feeling the impact of the economic crisis in their wallets, while the higher pork prices of the last year are increasingly reflected in retail prices. In the US, meat prices held up well in the face of the decline in hog and pork prices. In both regions, the length and intensity of the getting season will be modifying for profitability, especially because the early Easter demand was rather disappointing for sales.

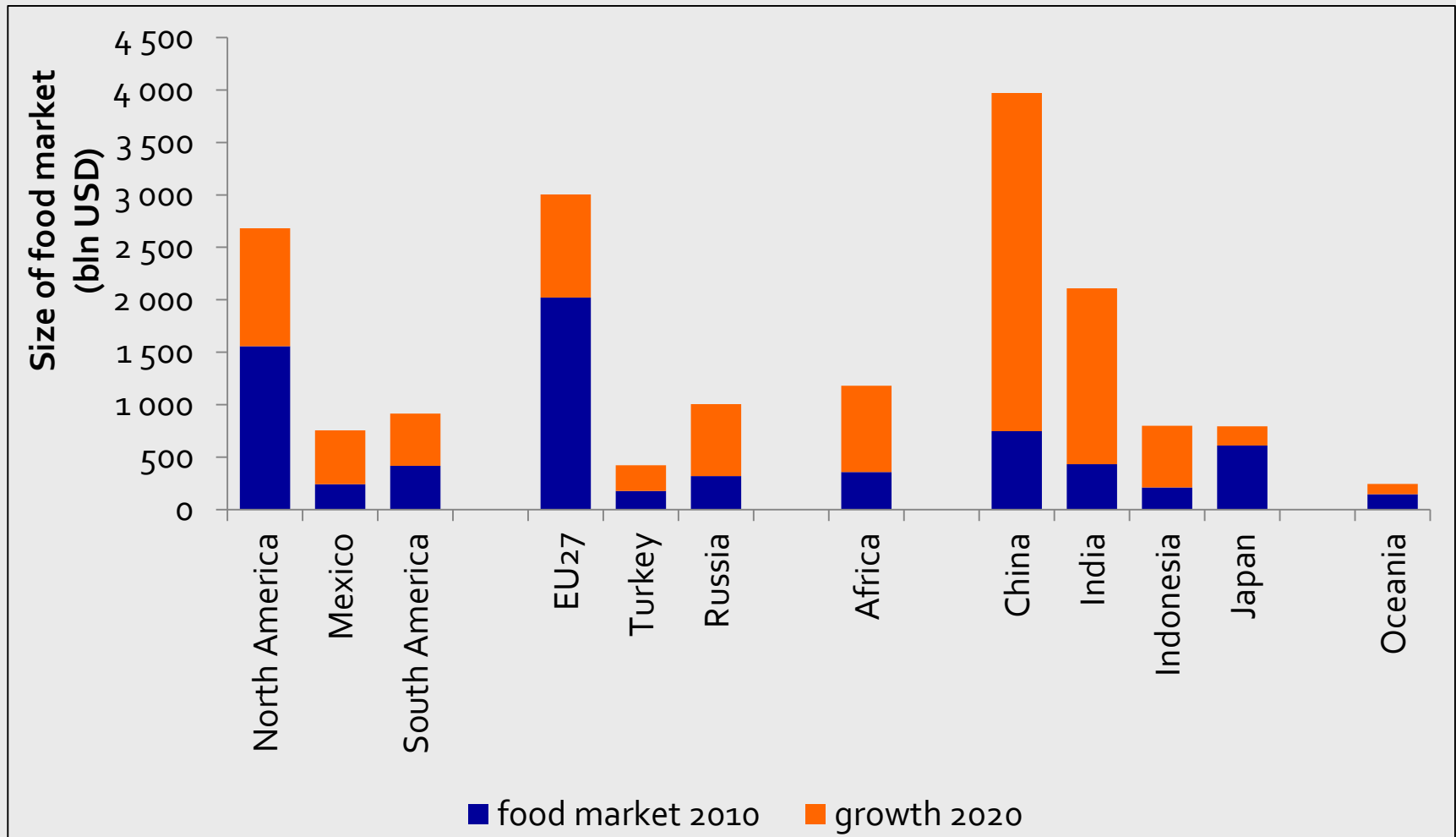
It seems that with the growing importance of China and Russia imports, combined with the growing export dependency in the US and EU, the seasonal trends in the pork market in the Northern Hemisphere are moving with strong export demand and high prices in the second half of the year and a difficult market in the first half. This development continues, the export will be huge for the pork industry in the Northern Hemisphere. This will be apparent not only in the changing animal price development, but also in the carcass valuation, which will differ between the Northern and Southern Hemisphere and between spring and autumn.

In line with this possibly structural development, 2H 2013 offers better prospects, with forecast hog production drops in the EU resulting from the implementation of the sow pen regulations in January, and the expected seasonal growth in import demand in China. With Chinese hog farms currently making losses (USD 30 per hog, it will likely result in an increase in sow slaughter). This will result in tight supply towards the end of 2013 and in 2014.

F&A supply chains are under unprecedented pressure



Consumer spending on food will double in the next decade

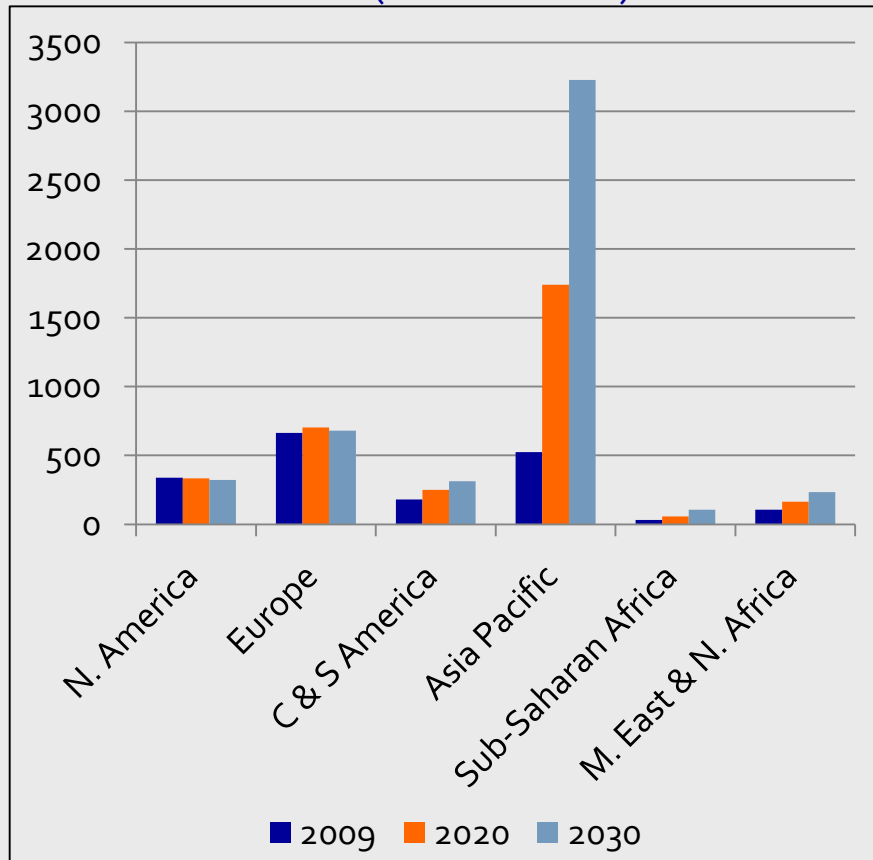


Main driver: Rising welfare

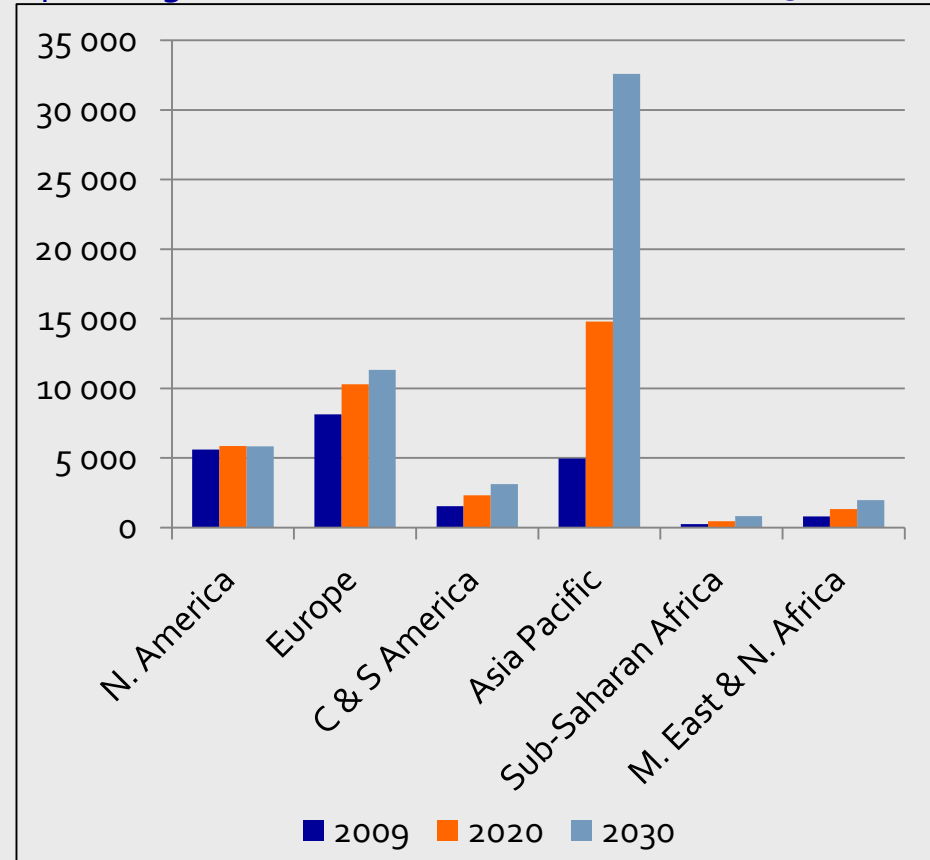
The Global Middle Class is growing faster than total population



Global middle class (million heads)



Spending Global middle class (mln USD 2005 PPP)



About 3.0 billion people will ascend to the Middle Class until 2030

China is leading this development



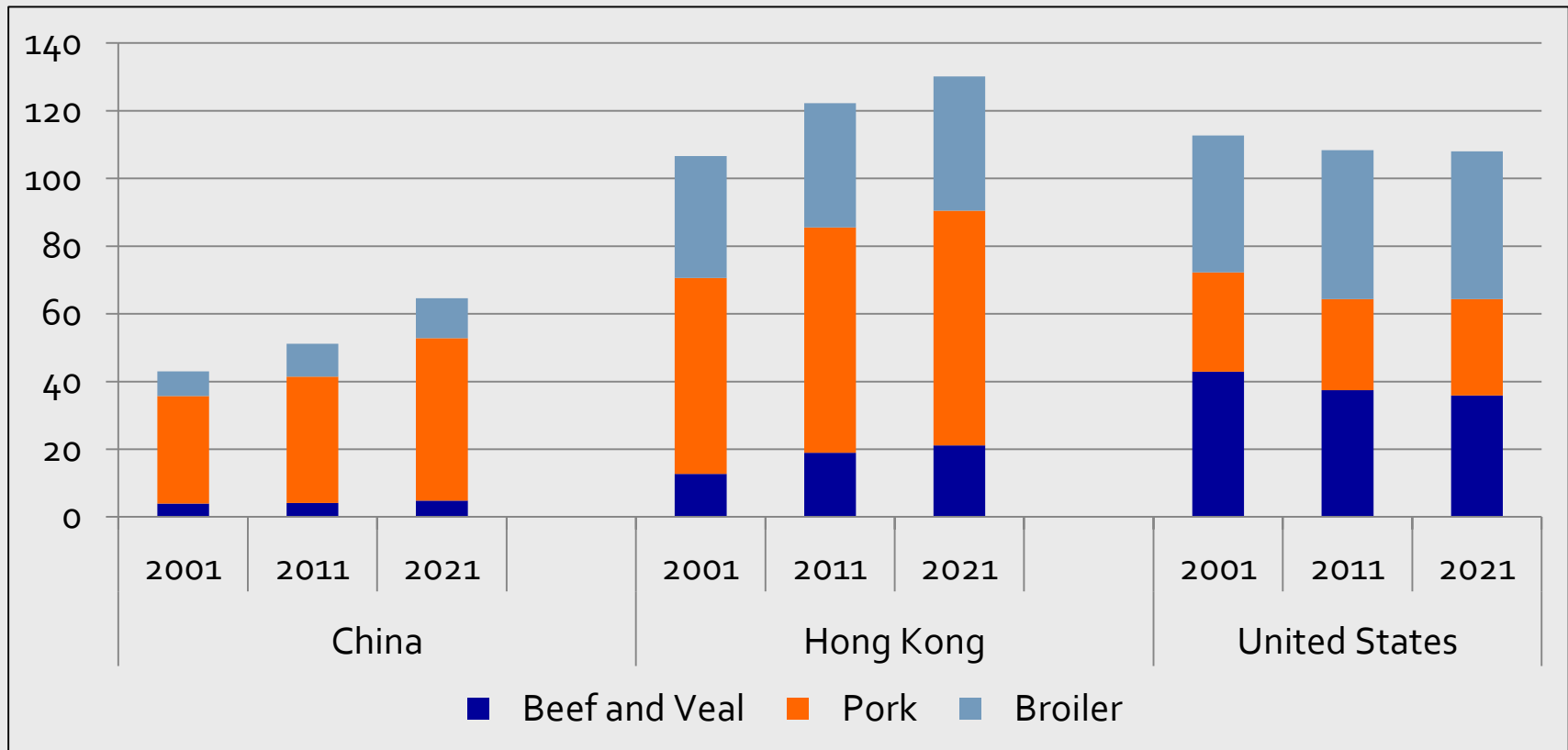
	Total Population	Middle Class	Percent
2000	1.3B	170M	15%
2010	1.4B	276M	23%
2015	1.4B	403M	31%
2020	1.4B	700M	48%

- **Estimate 27 million Chinese people entering middle class each year**
- **Urbanization the driver → 225 cities with 1 million population each by 2025 in China**
- **Rapidly growing middle class will drive the market and affect world supply and demand**

It will result in surging meat demand



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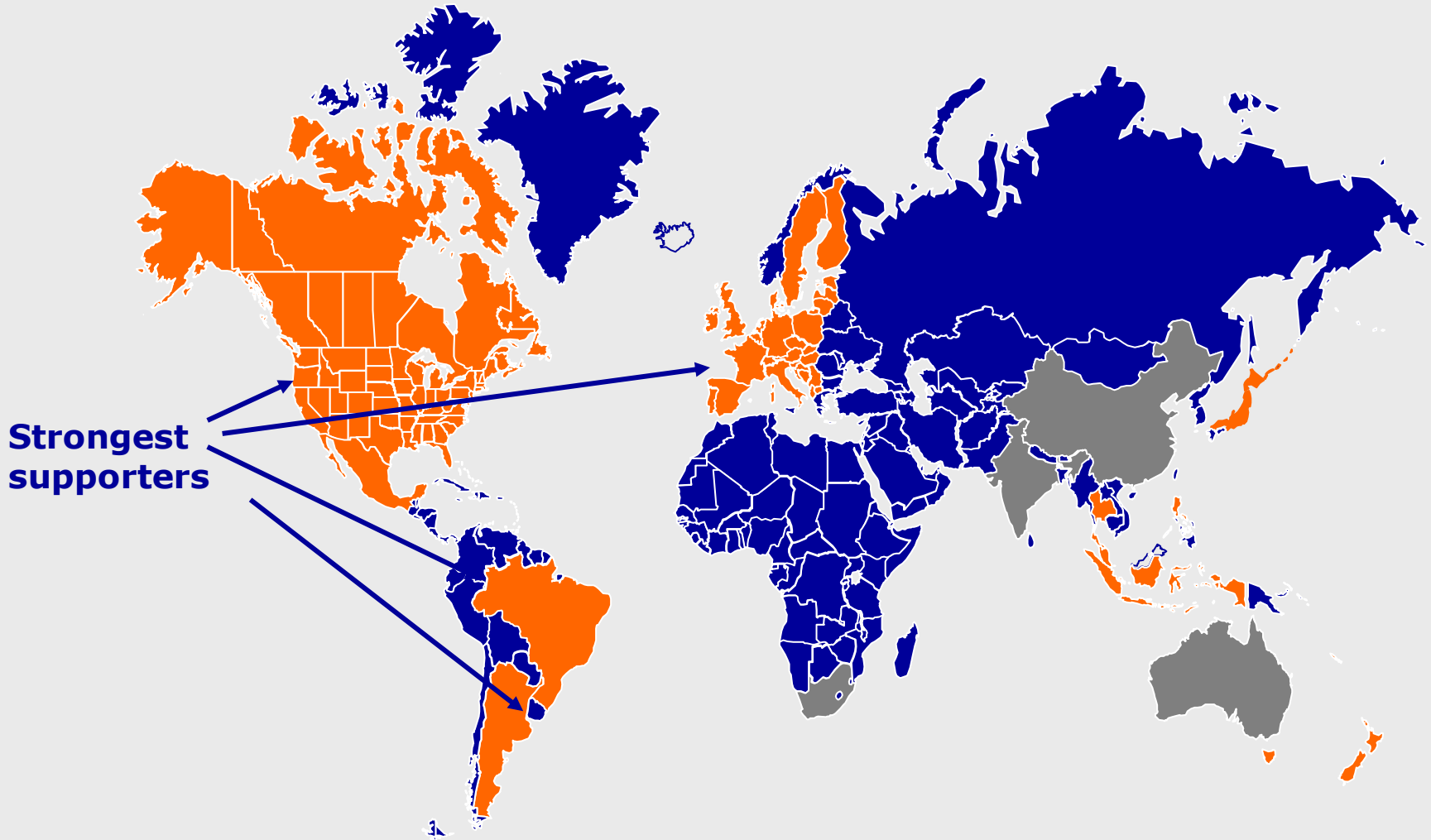


Meat consumption China 2021

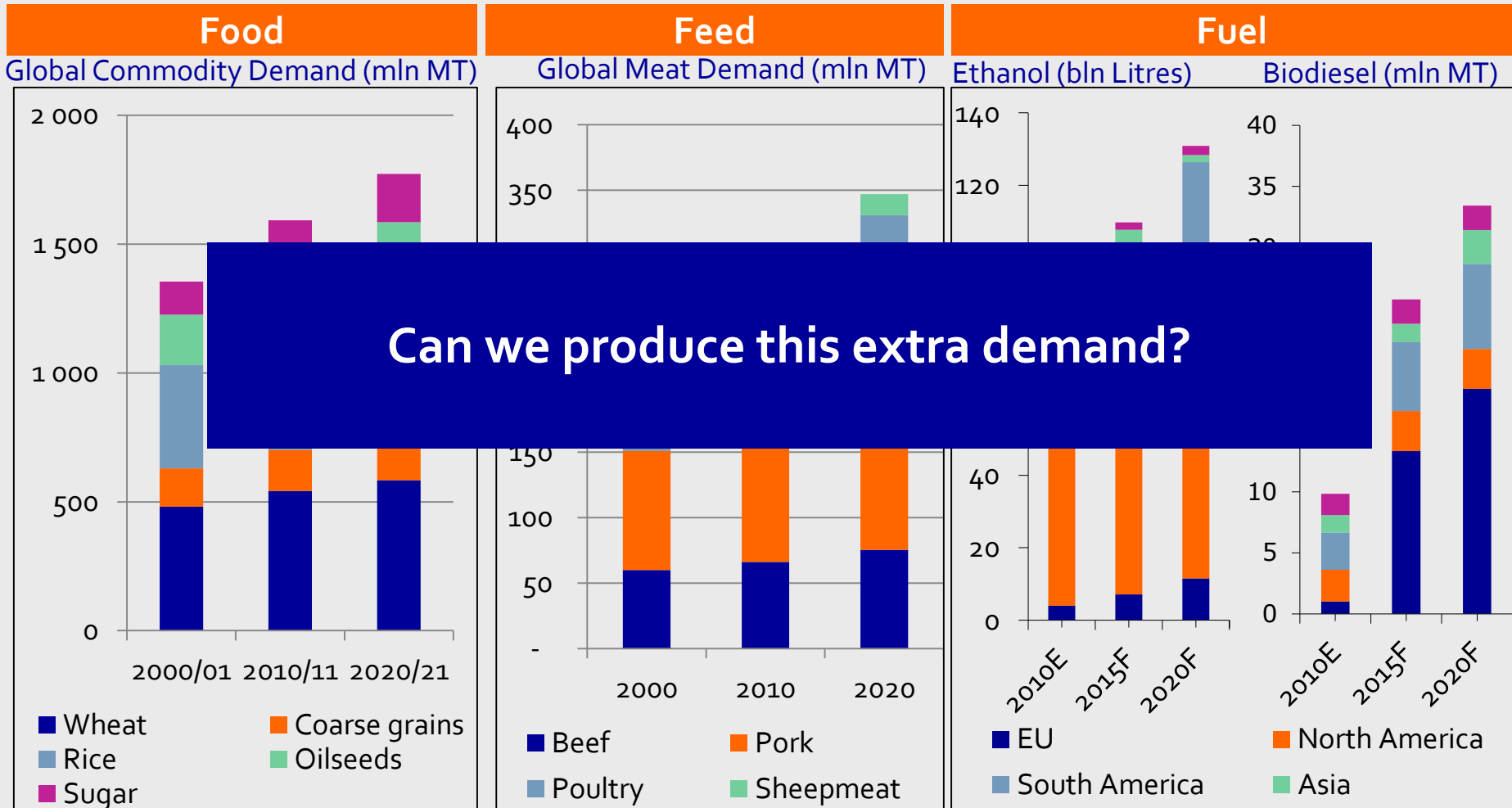
→ About 13 kg increase per head in the coming decade

→ And this for 1.3 billion people

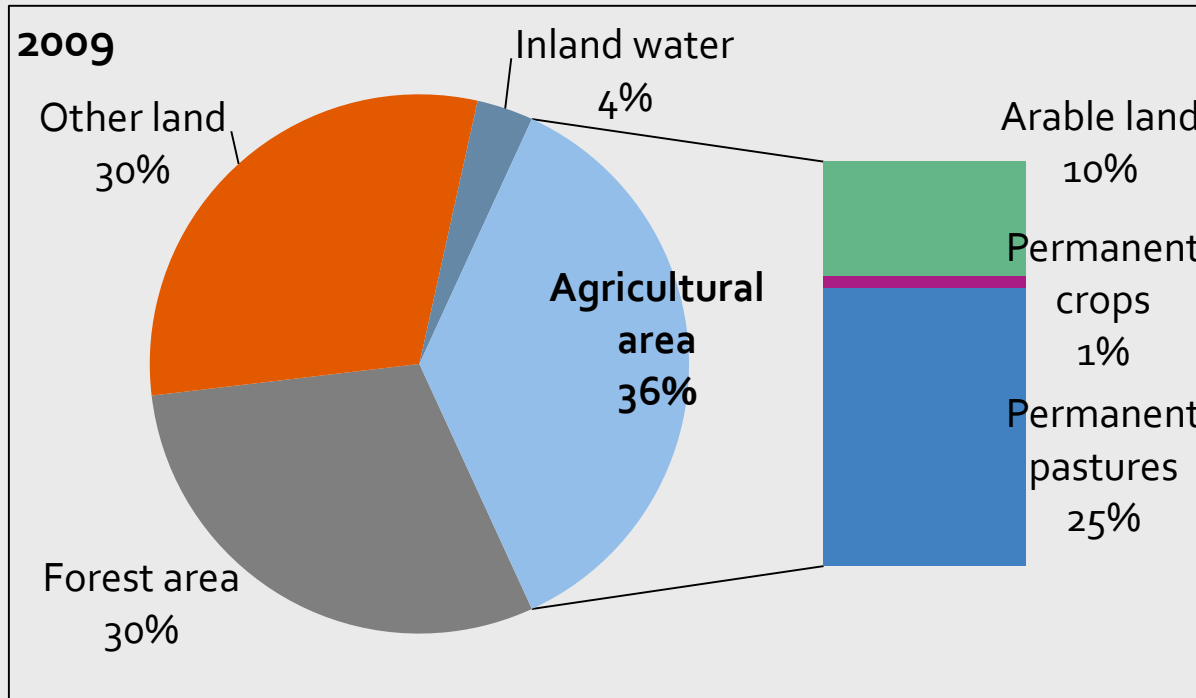
Despite pressure on biofuels mandates across the globe Biofuels are here to stay



The "F" factor effect: demand for agri-commodities will continue to rise



Land availability is limited



Development 1970 -2009 (%)

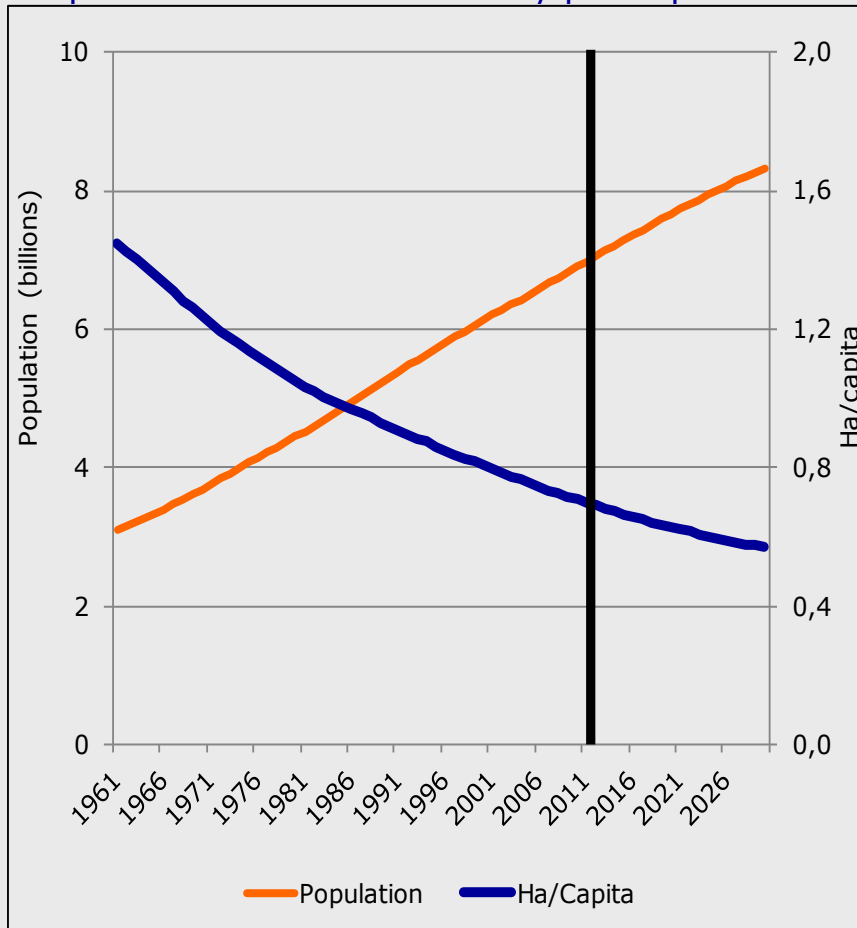
Forest area	-3,1%
Other land	1,0%
Inland water	0,4%
Arable land	0,2%
Permanent crops	0,4%
Permanent pastures	1,1%

**Mother Earth totals 13.4 billion hectares,
only about 4.6 billion hectares suitable for agriculture**

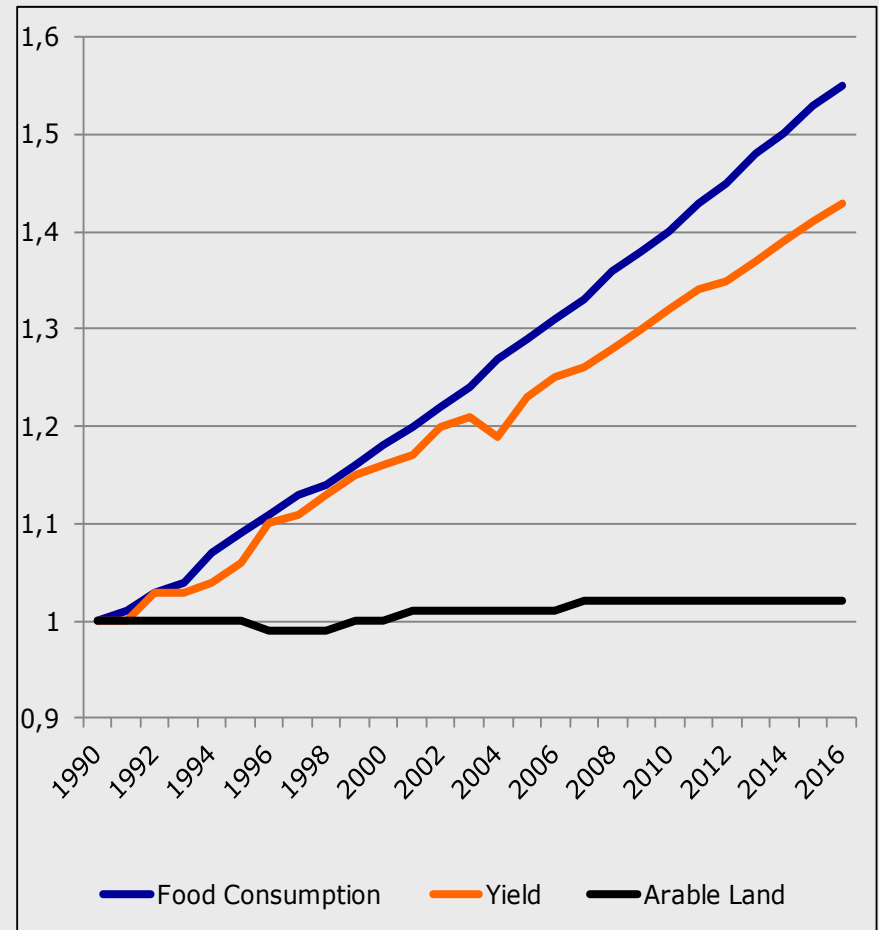
Production not yet able to adjust to higher demand



Population vs. land availability per capita

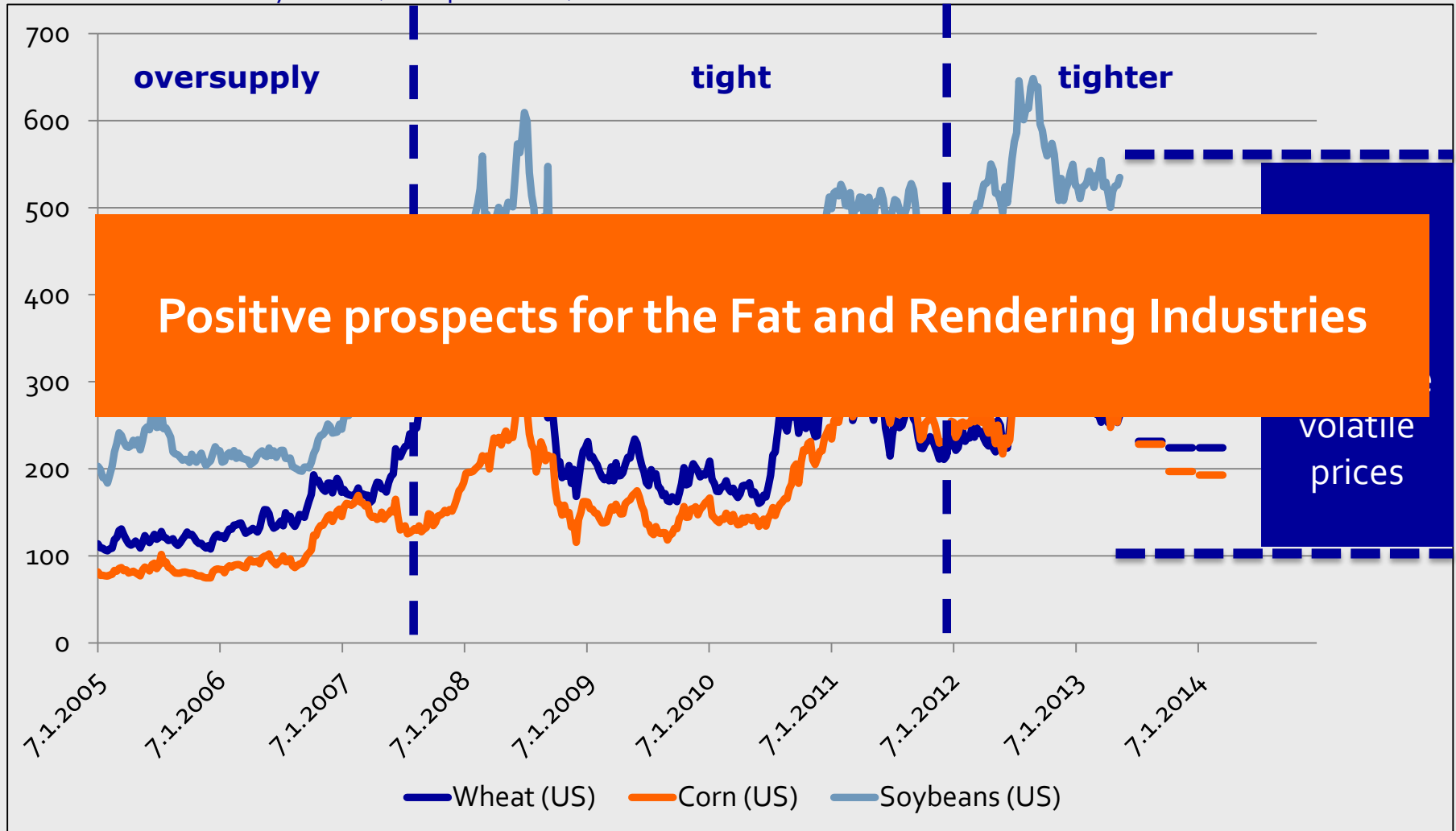


Growth food consumption vs. yield vs. arable land (%)



Commodity prices likely to remain high and volatile

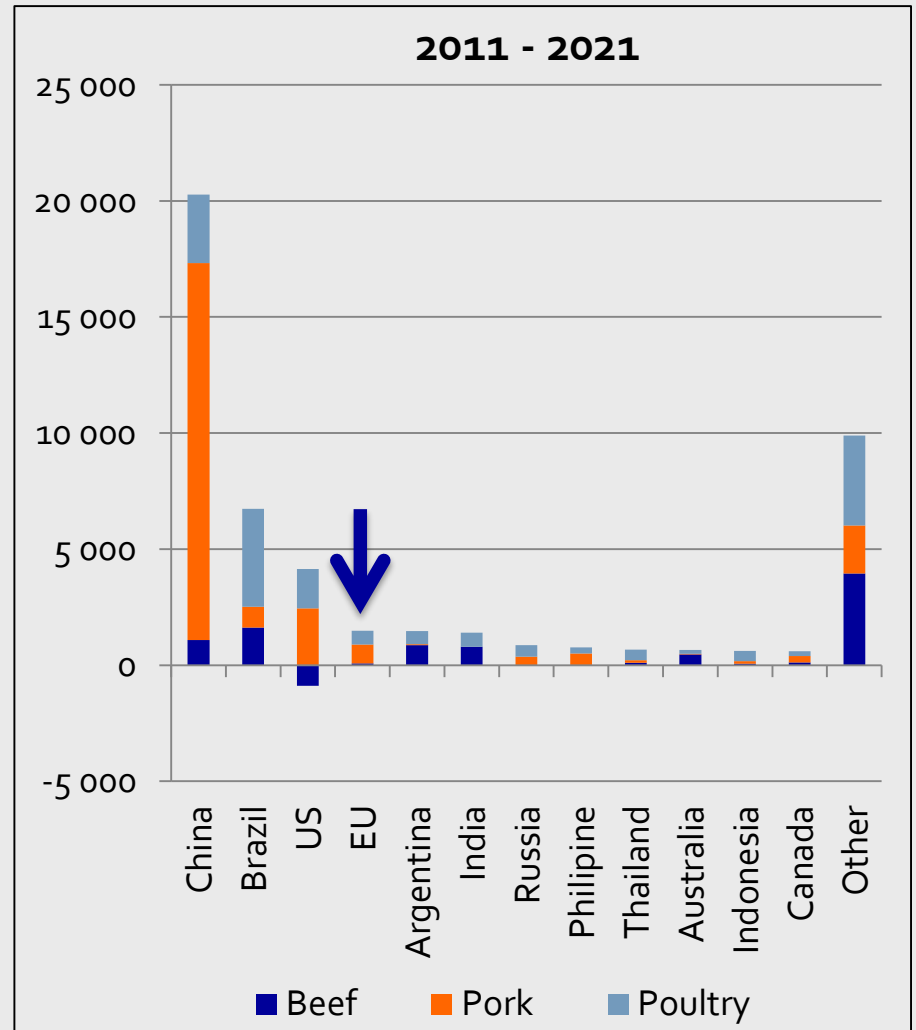
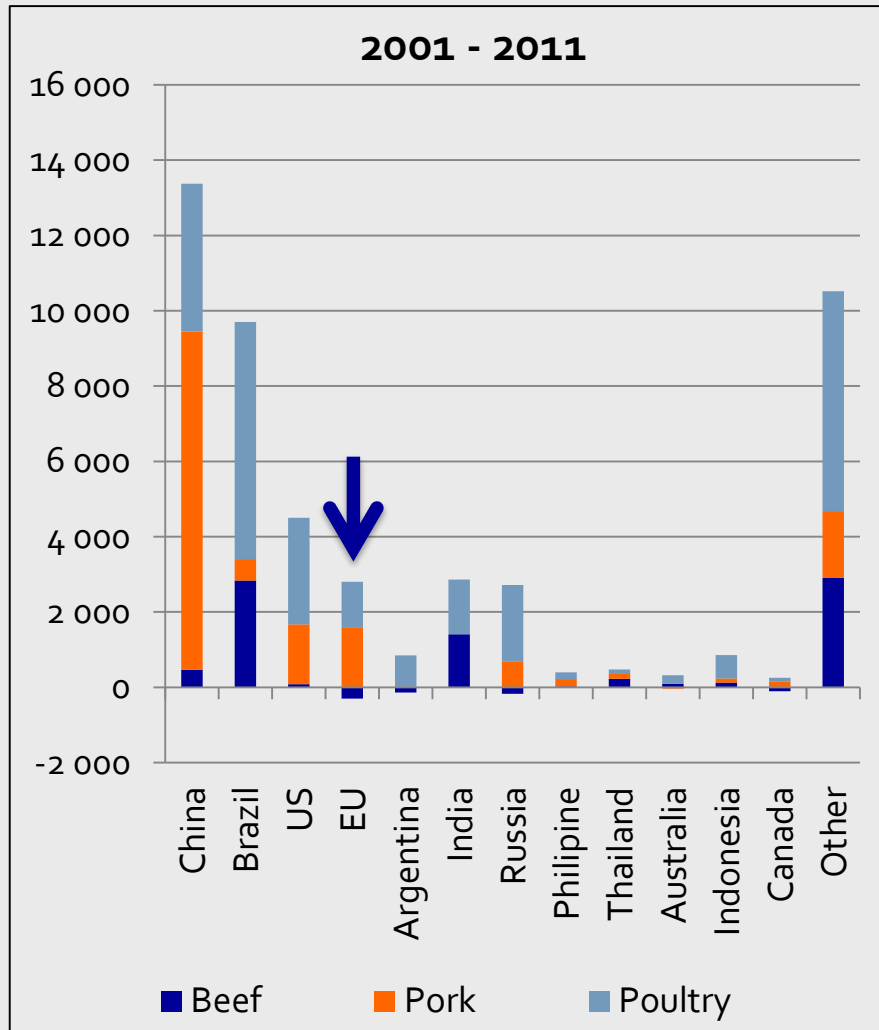
Global Commodity Prices (USD per tonne)



Growth EU meat production lagging developments in China, Brazil and the US



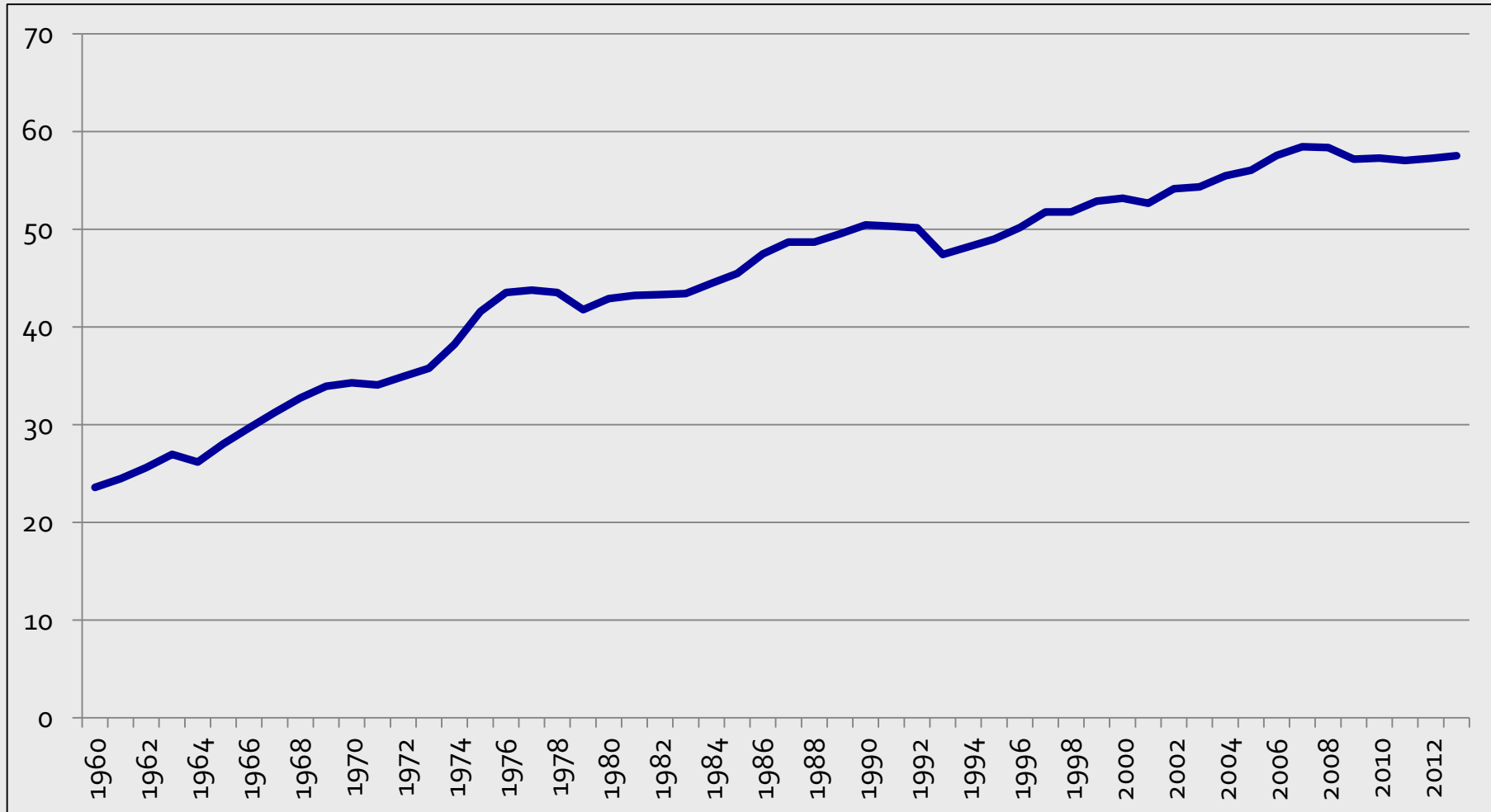
Meat production growth by country and specie (1,000 ton)



Beef pastures under pressure globally



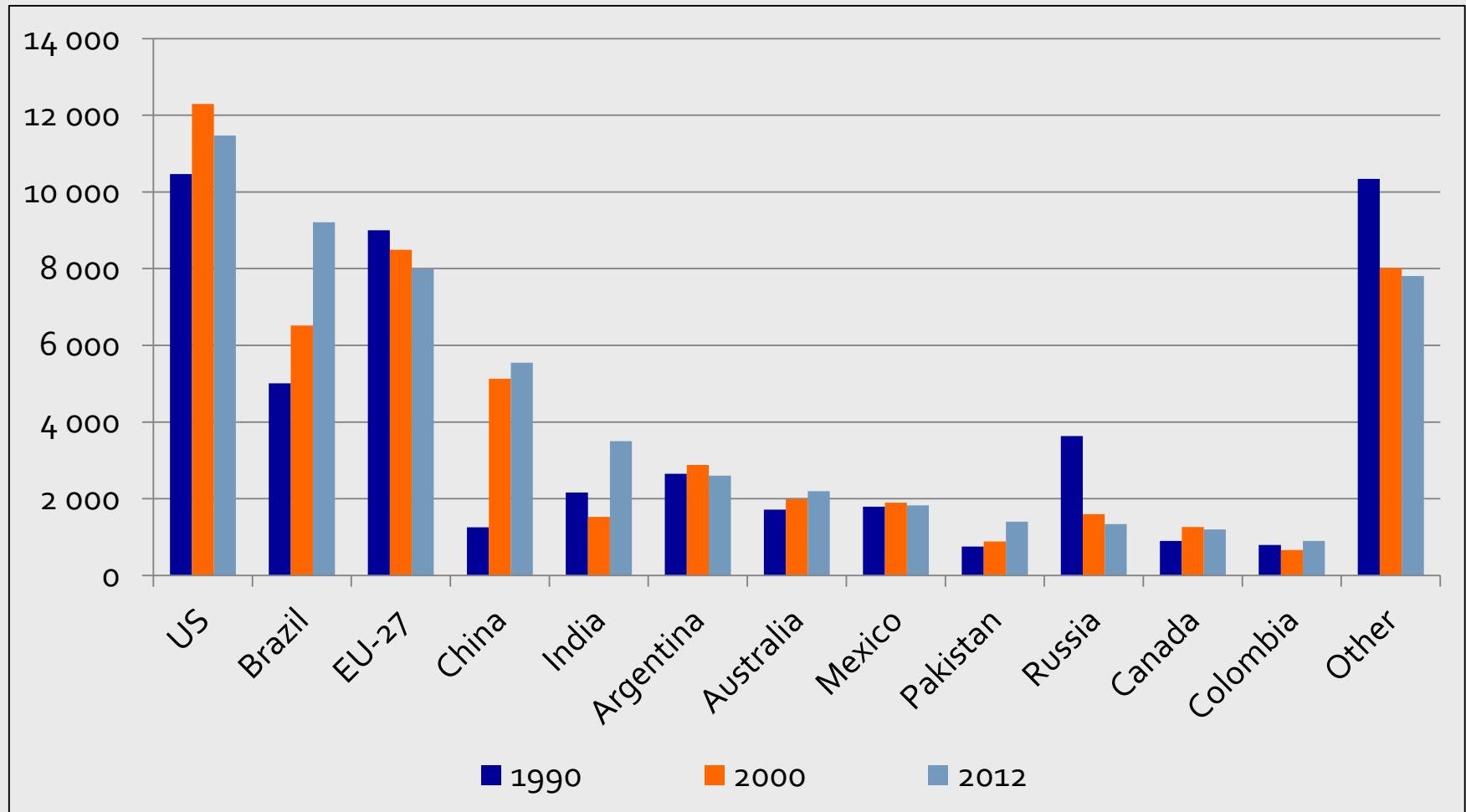
Global beef production 1960 – 2012 (1,000 ton)



Clear difference in developments in cattle production between the northern and southern hemisphere



Global beef production by country (1,000 ton)

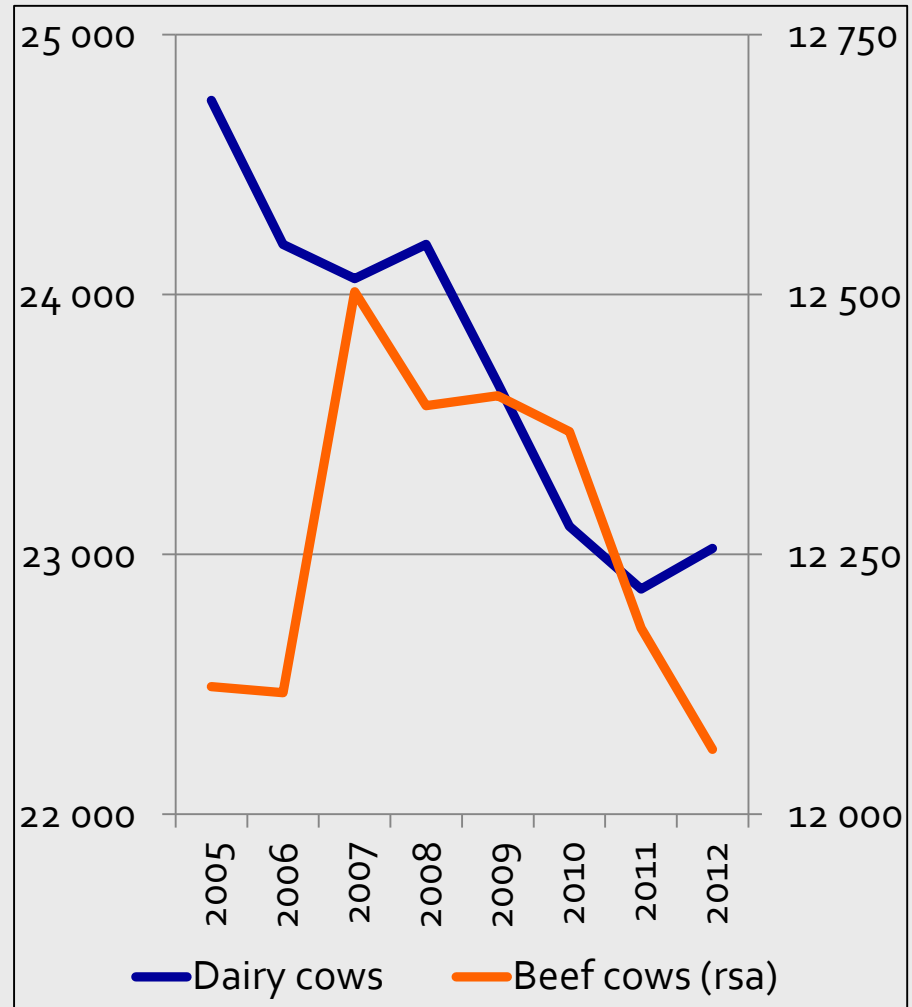


Safeguard prime beef supply key challenge European beef industry with new CAP and dairy quota abolition looming



Dairy quota abolition will result in growth dairy production in northwestern Europe

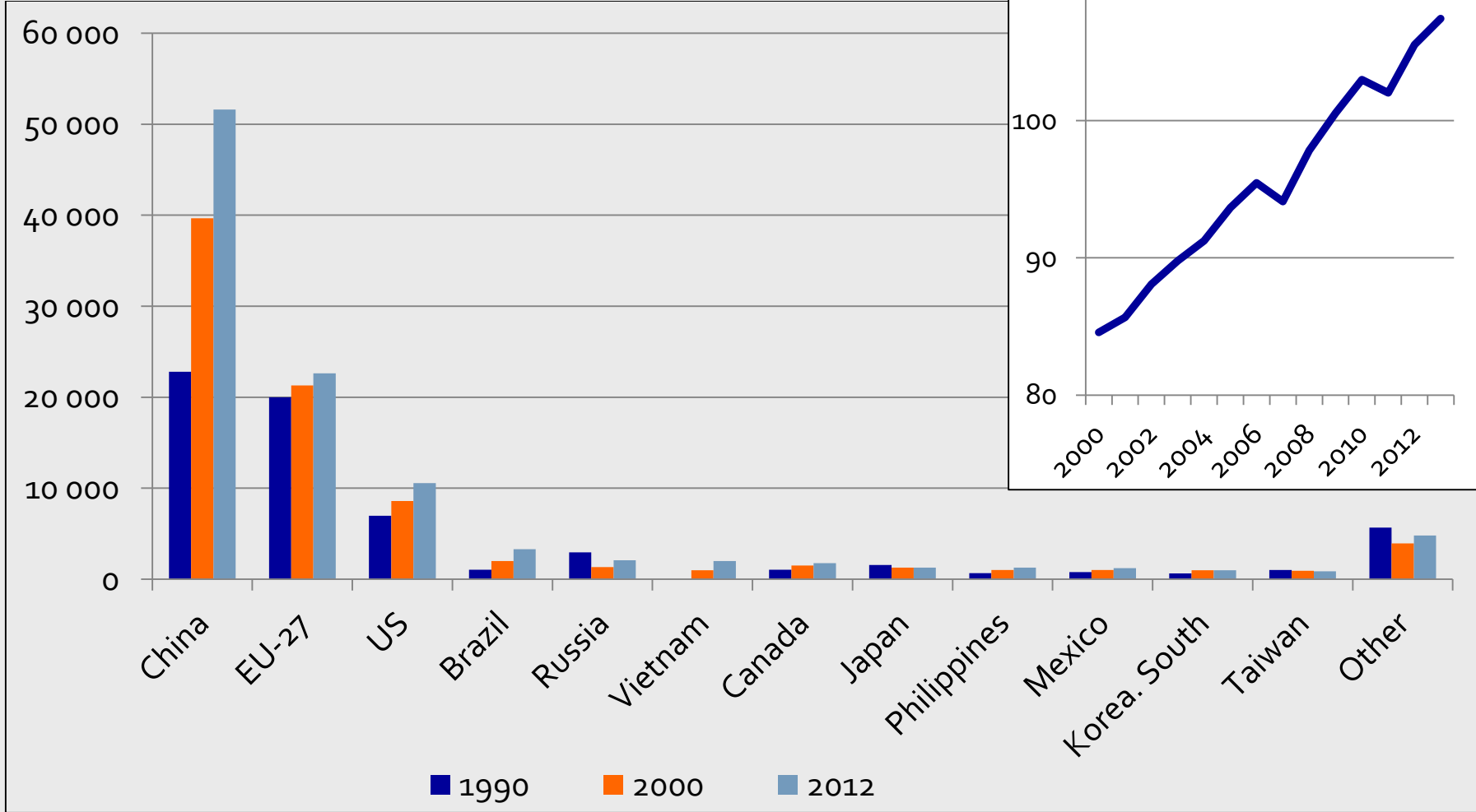
EU cow herd (million head)



China dominating the developments on the global pork market, share EU declining



Global pork Production by country (1,000 ton cwe)



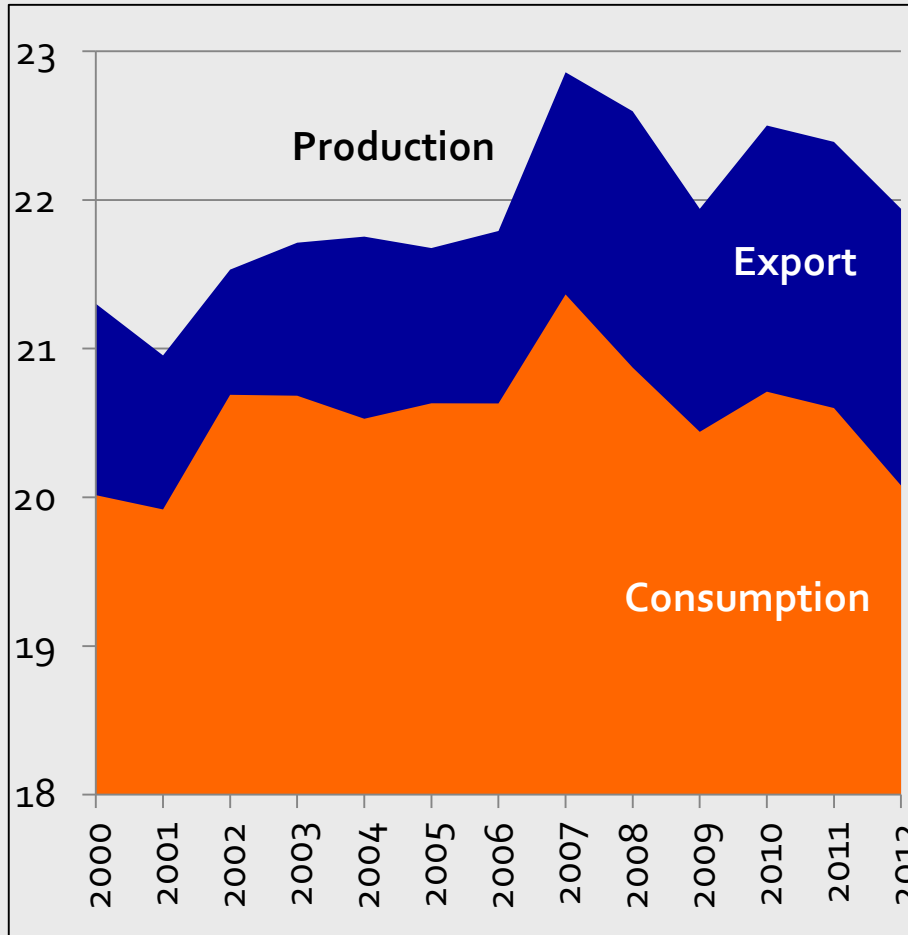
Source: USDA, 2012

Growing export dependency and cost price increasing regulation slows down recovery

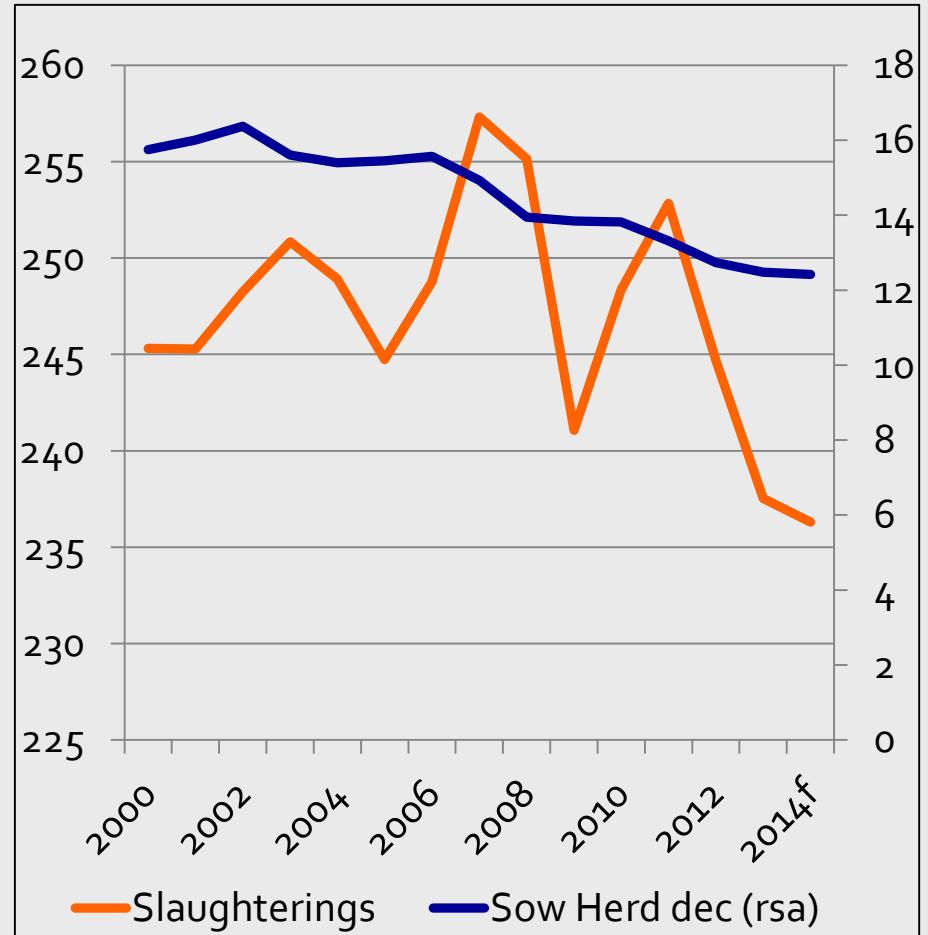
EU pork production



EU pork balance (million tonne cwe)



EU sow herd and slaughter numbers (1,000 head)

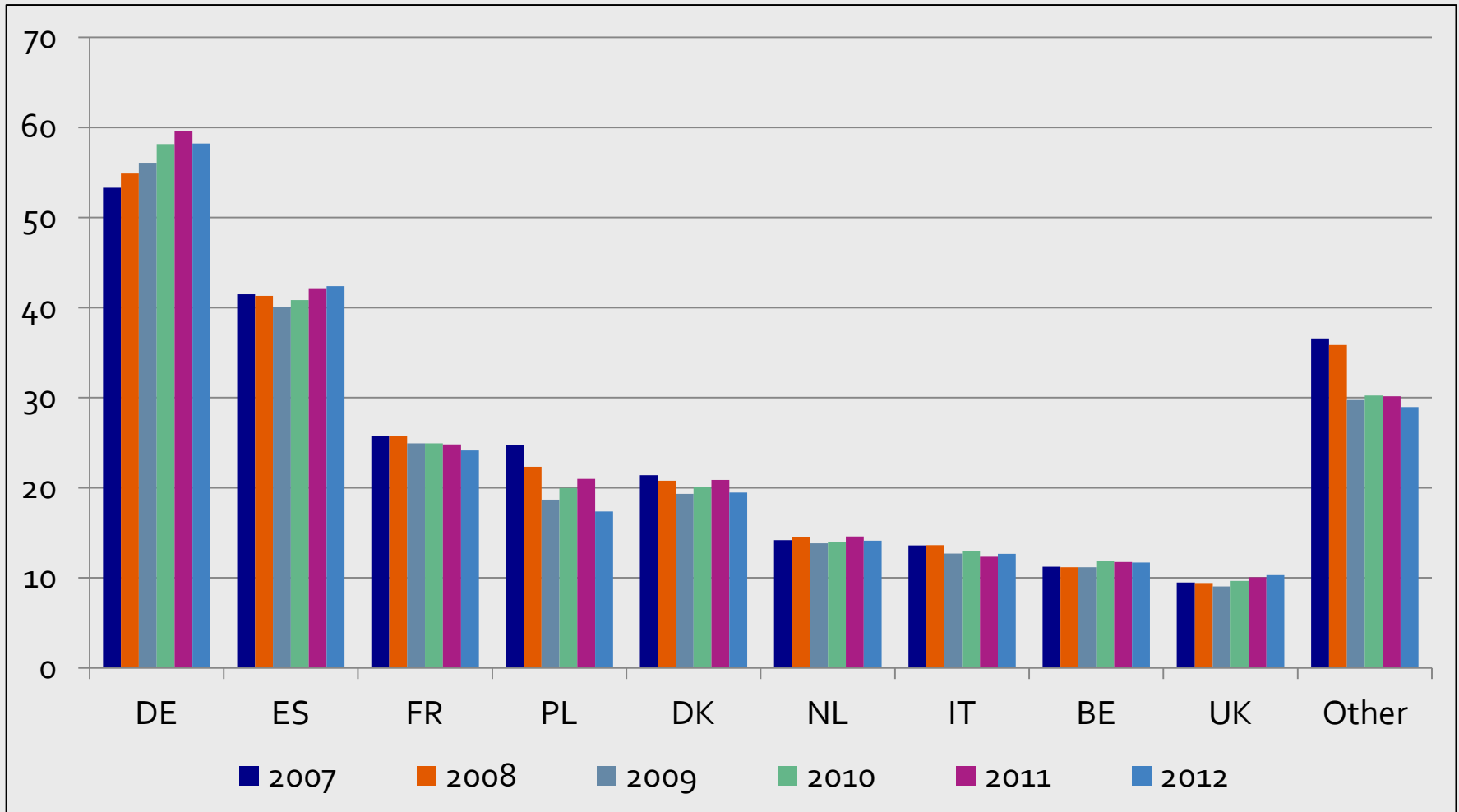


F=forecast; Source: European Commission, Rabobank, 2012

Germany and Spain continue to dominate EU pork industry

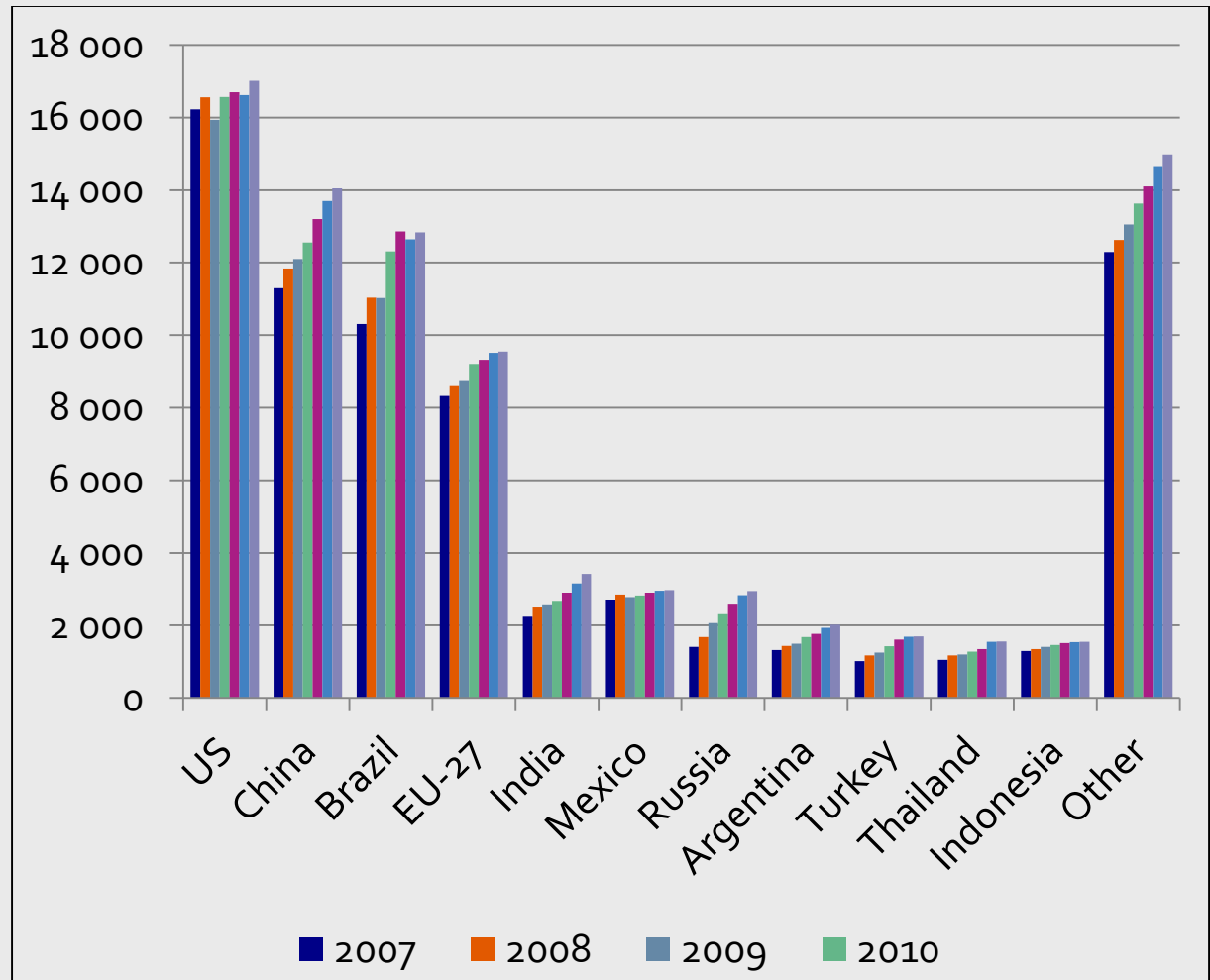
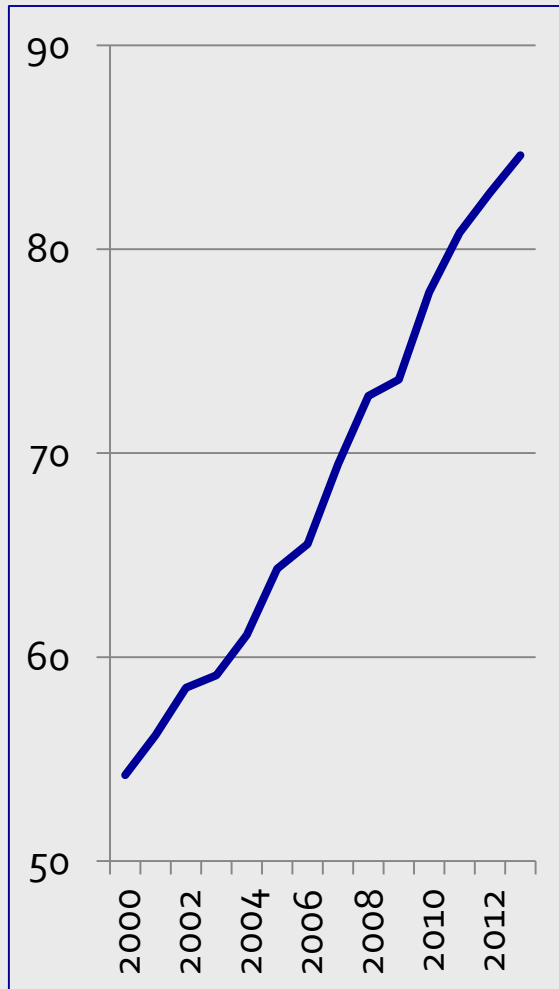


EU pork production by country (1,000 ton cwe)



Top 4 cementing their positions in global poultry market

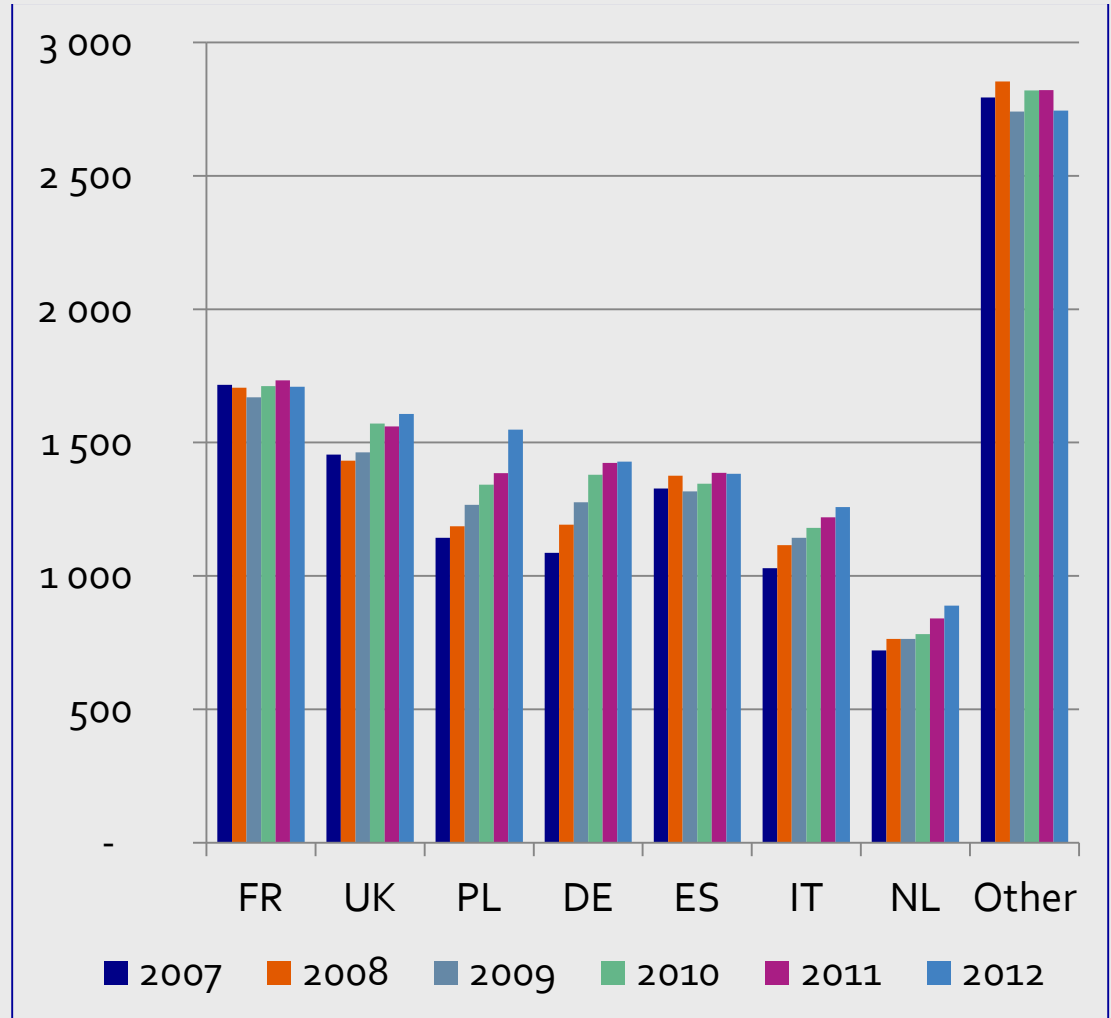
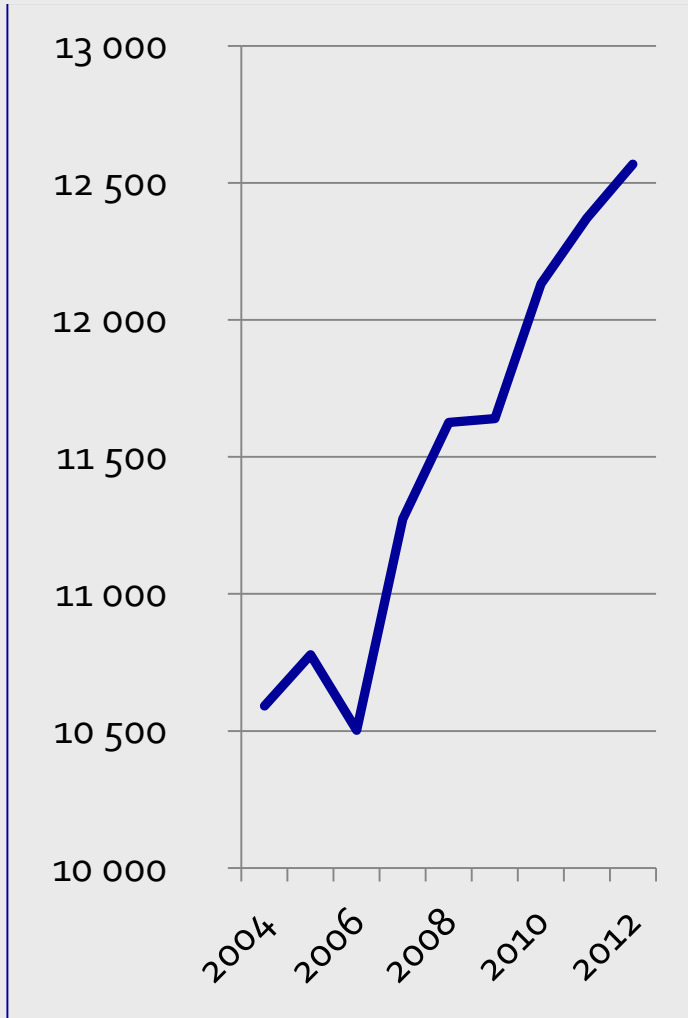
Global poultry production total and by country (1,000 ton cwe)



In European poultry, Poland is rapidly gaining market share

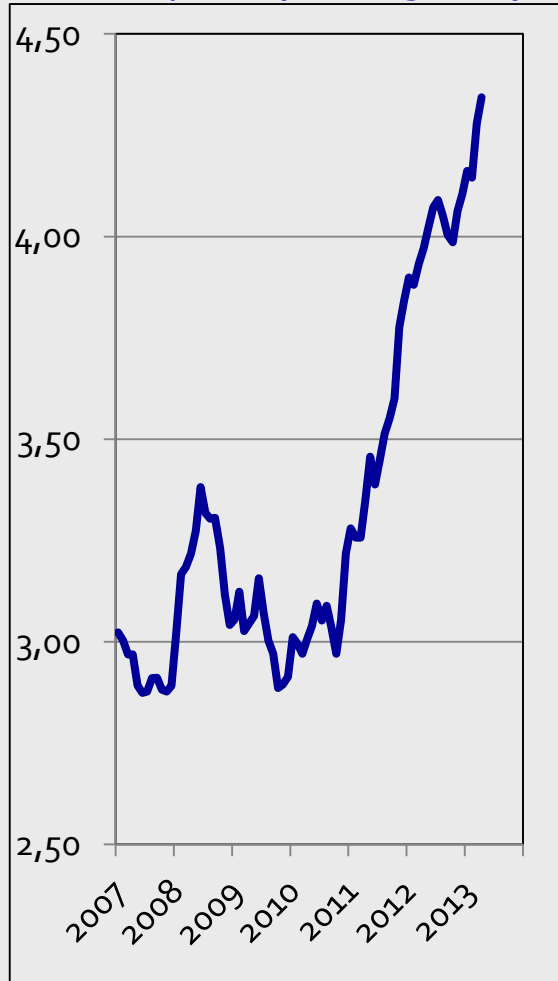


EU poultry production total and by country (1,000 ton cwe)

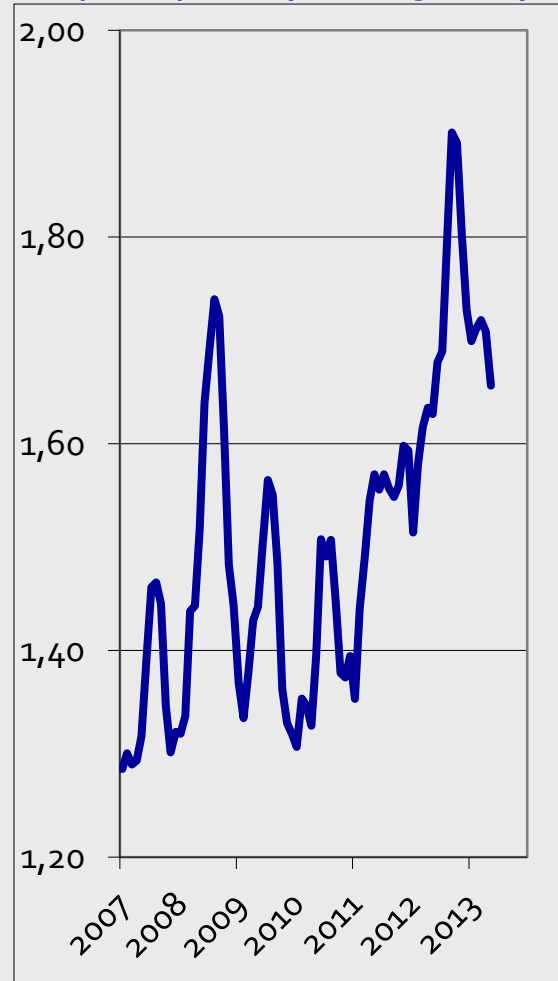


Sourcing costs to remain elevated

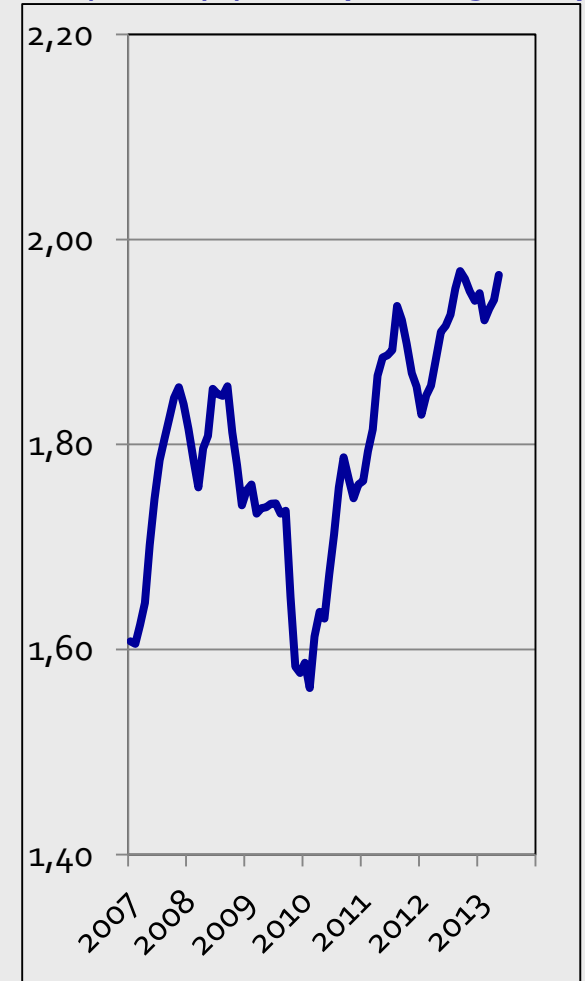
EU beef price (EUR kg cwe)



EU pork price (EUR kg cwe)



EU poultry price (EUR kg cwe)



Sum up meat demand and production



- *The "F" factor effect: demand for agri- commodities will continue to rise*

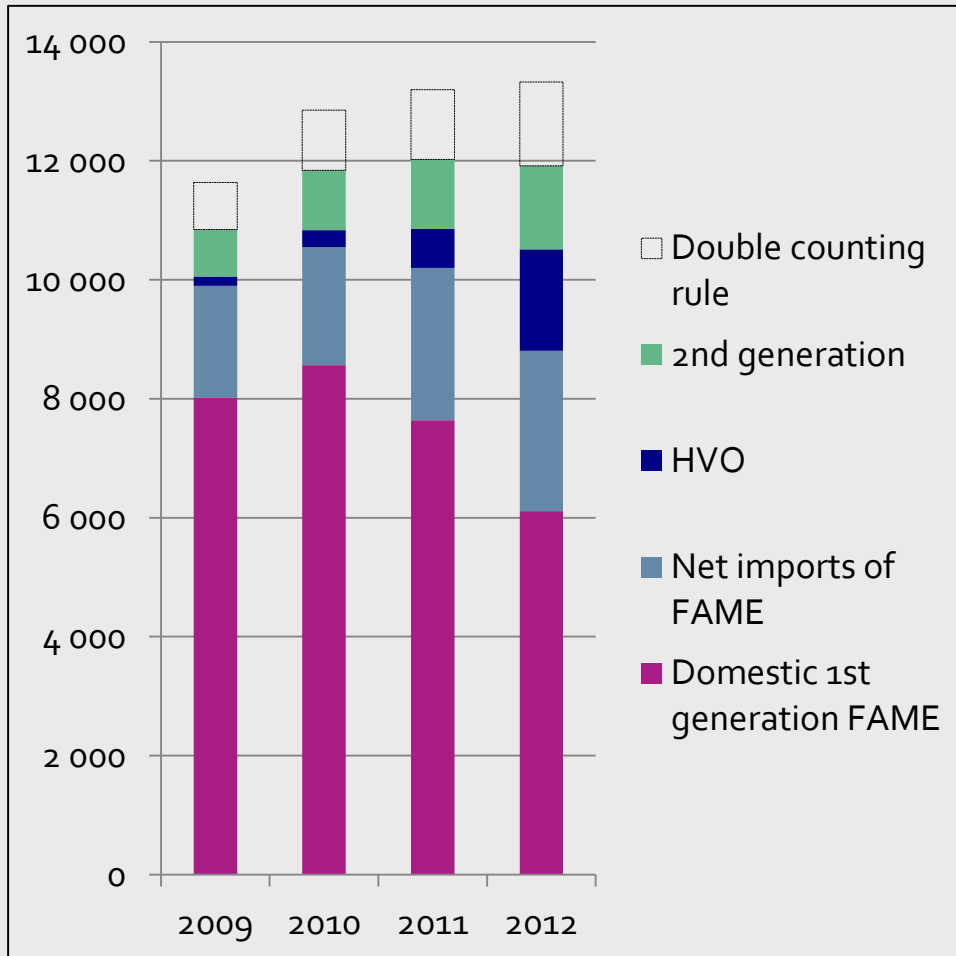
What will be the impact on the European Fat and Rendering Industries

- *Limited growth EU meat production*
- *Sourcing costs to remain elevated*

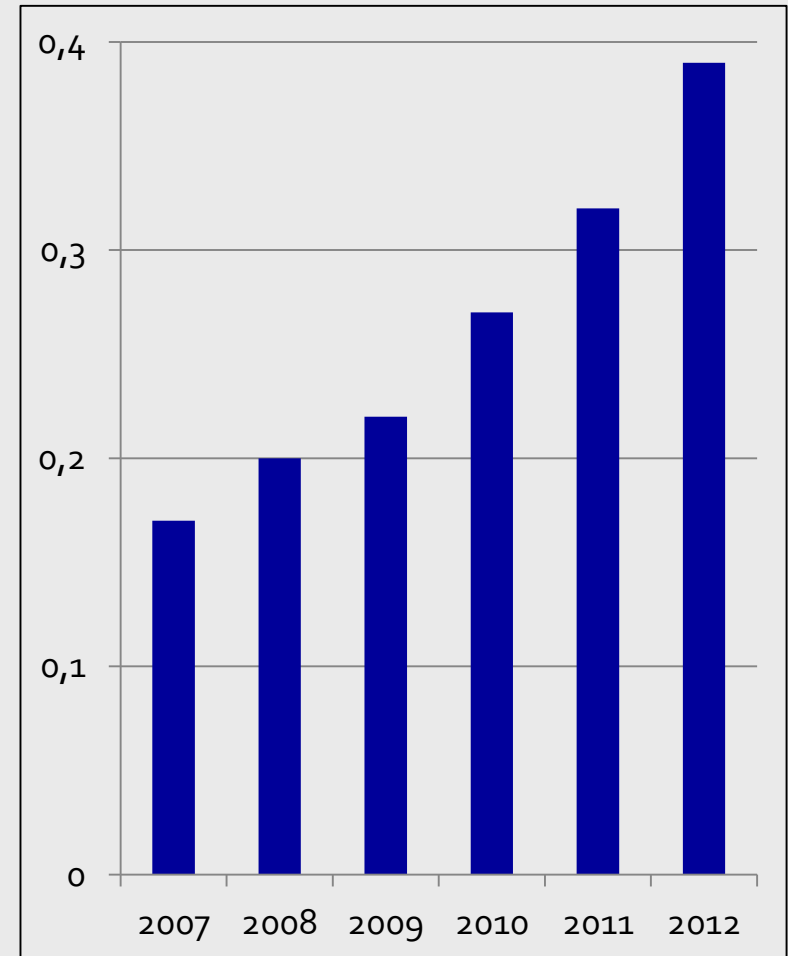
Cap of 5% on 1st generation biofuel will roughly double 2nd generation until 2020



EU Biodiesel consumption (Tonne)



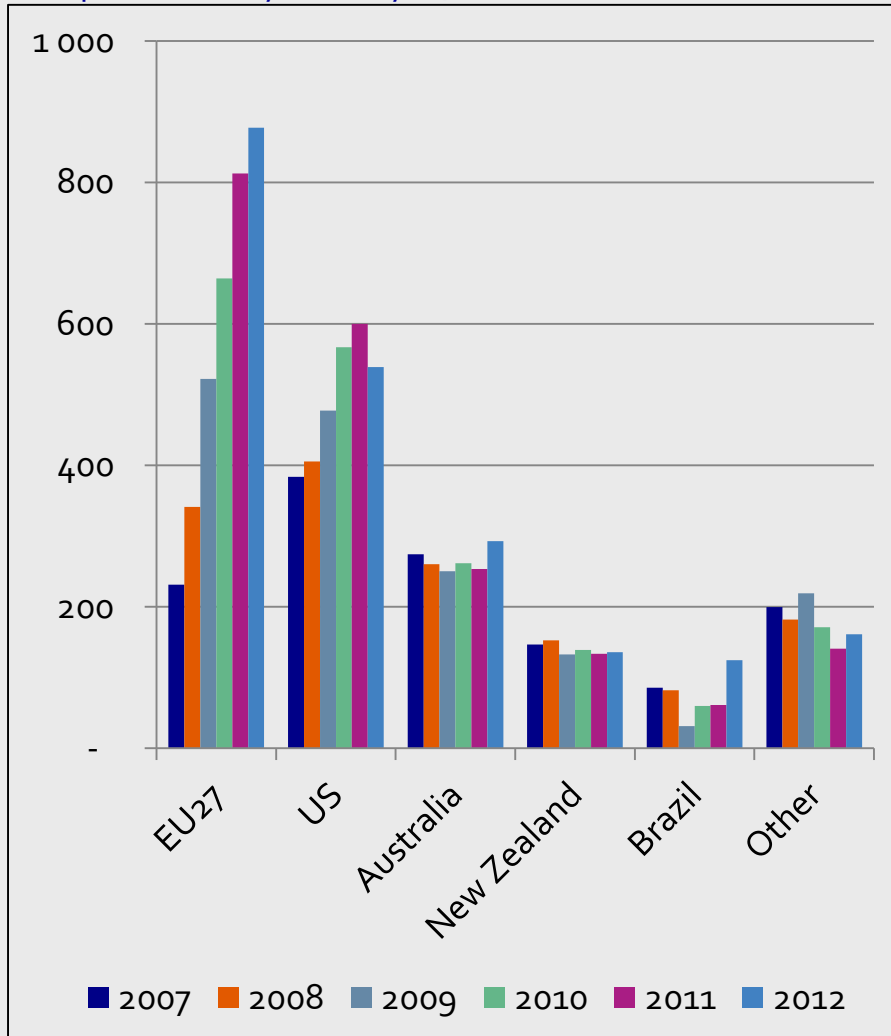
Tallow/grease in biodiesel production EU (Million tonne)



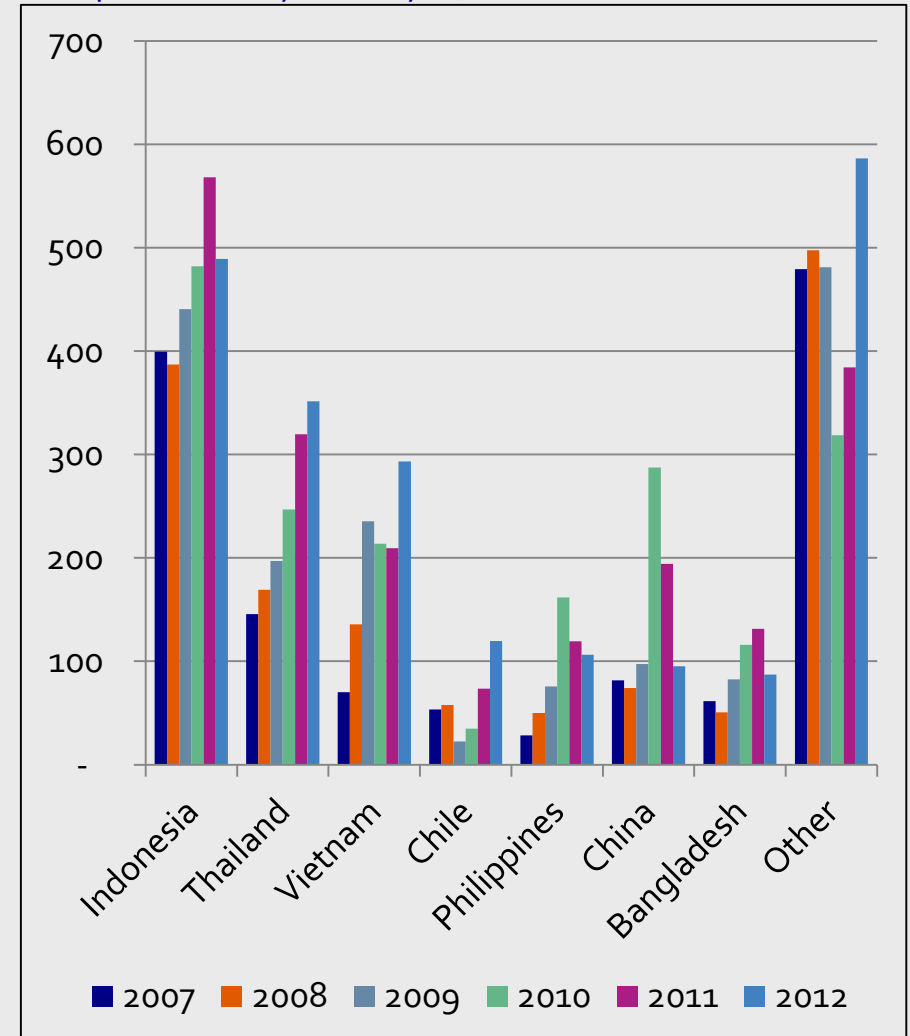
Global MBM demand will continue to offer opportunities



Export MBM by country (1,000 MT)



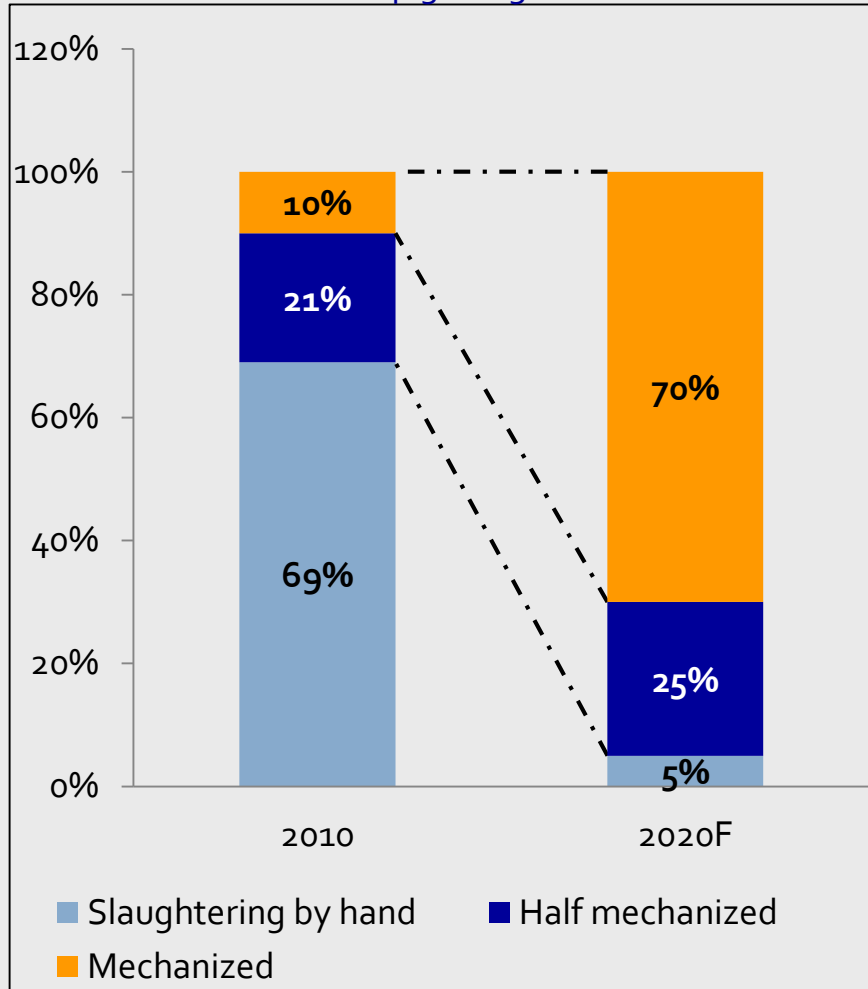
Import MBM by country (1,000 MT)



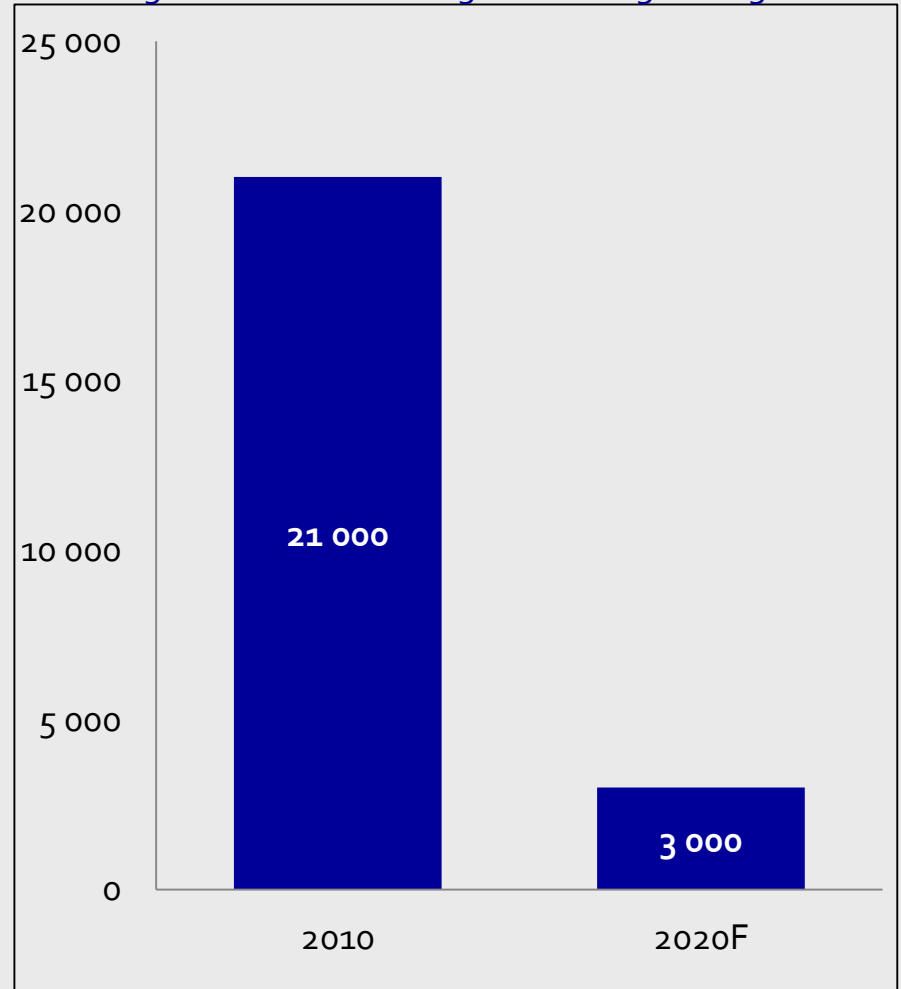
Fast modernisation Chinese pig industry will increase availability raw material



Mechanization Chinese pig slaughterhouses



Changes in the no. of designated slaughtering houses



Shift in carcass valuation heightens fight for raw material



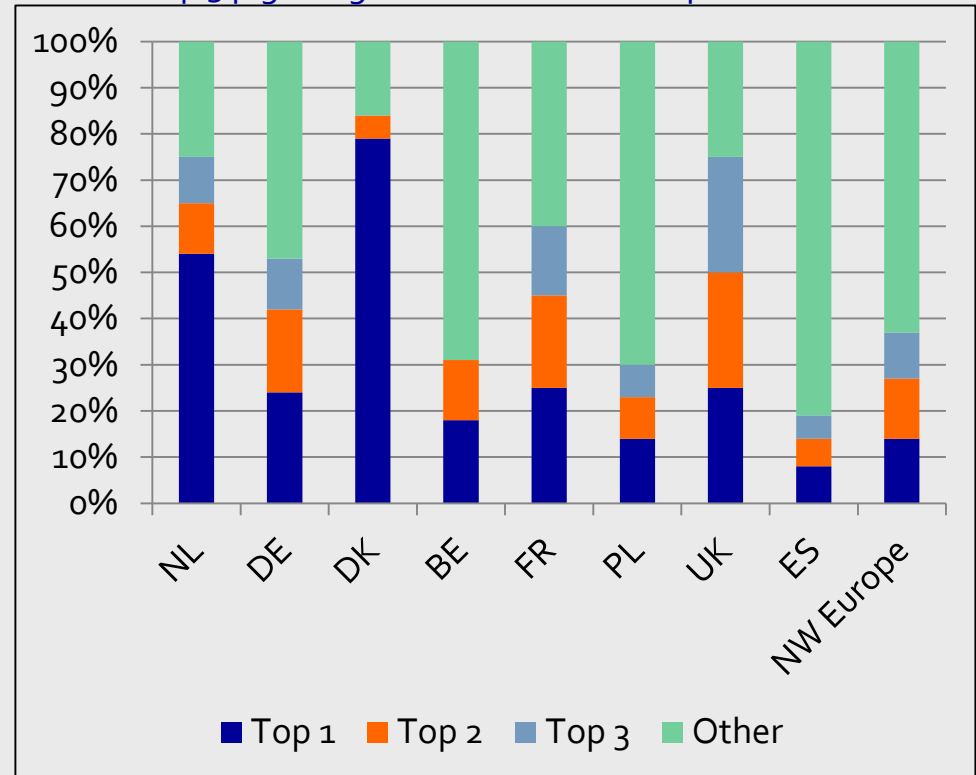
EU slaughter industry will consolidate

Forward integration slaughter industry into by-products

Further processors increasingly secure raw material supply

Dedicated animal by-product processors strengthen position

Share top 3 pig slaughterhouses NW Europe



Opportunities for the European Fat and rendering Processing Industry



Strong growth opportunities for tallow/grease in EU biodiesel production

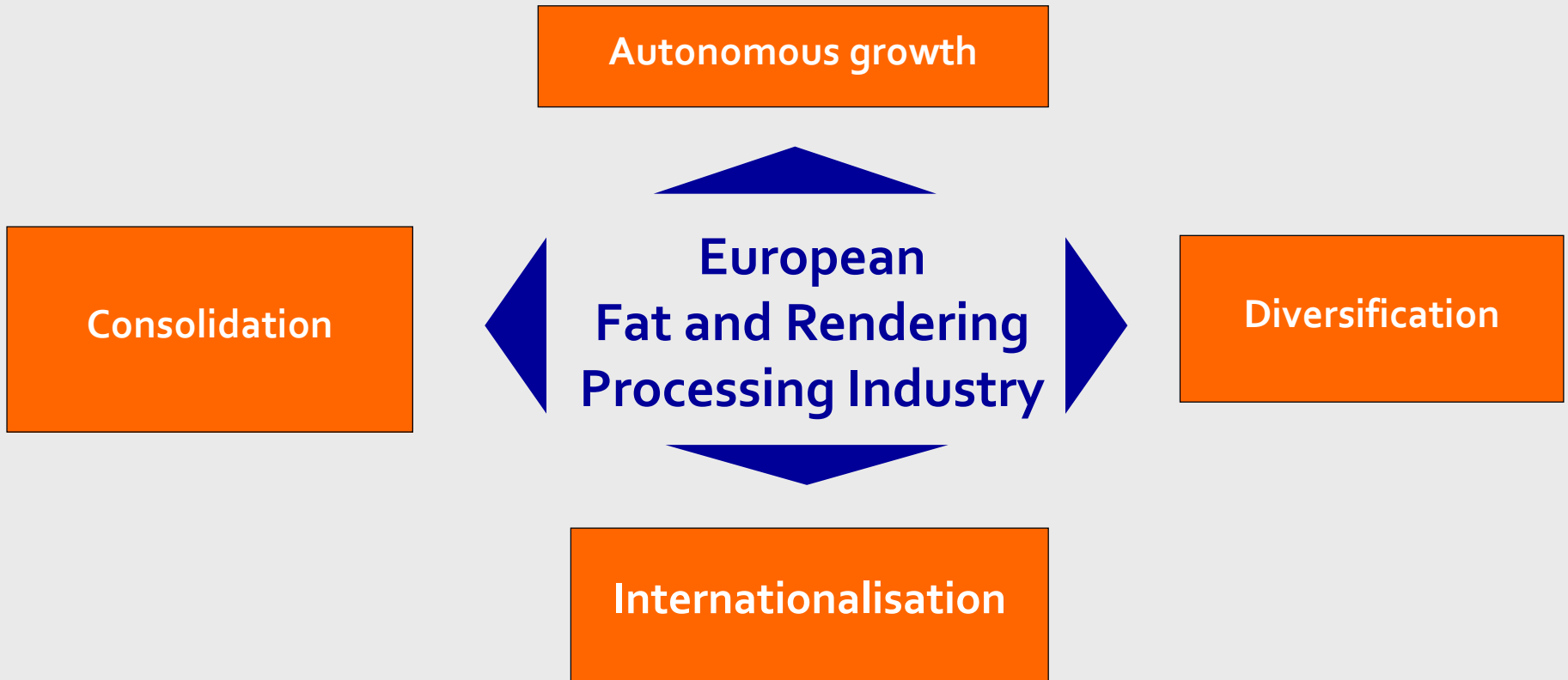
MBM export to remain elevated

Raw material availability will increase → But not in the EU

Competition for raw material heightens

How to capitalize the opportunities?

Strategic options



Thank you for your attention



*“The financial link in the
global food chain”™*

