Quality and Safety standards, Consumption patterns: a view of an economist

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Demand change is the key driver of the FAB R&D

- Changes in population, economic development, globalisation, urbanisation and climate change are reshaping global food demand: quantity, quality and structure.
- The FAB R&D needs to meet challenges in demand change. EU and Chinese scientists need to deal with global issues, common issues and country specific issues.

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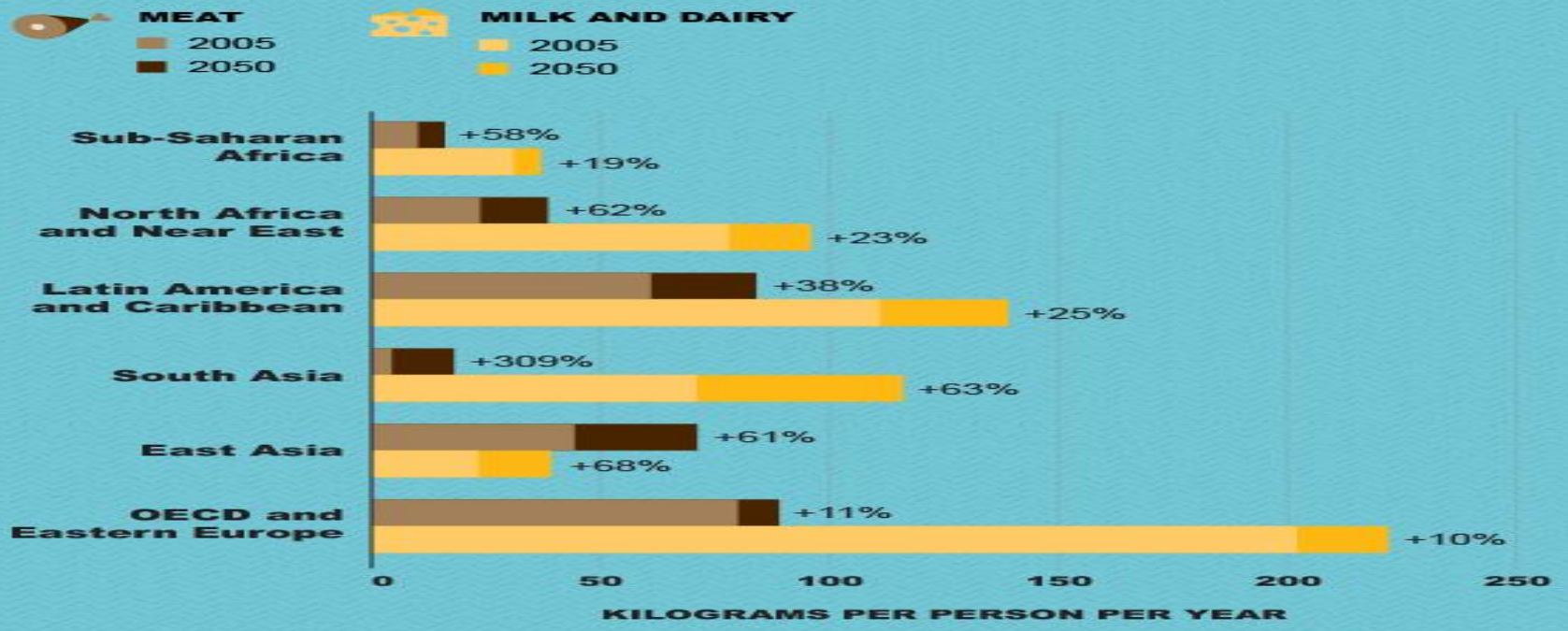
Dietary change

Diets are expanding and shifting. Sugar, fat, and animal product consumption are increasing in almost all regions of the world—yet people in low- and middle-income countries still consume far less meat and dairy than those in high-income countries.

Kastner et al., 2012

Projected change in meat and diary consumption, 2005 to 2050



Data from Alexandratos and Bruinsma, 2012

Big Facts

Where agriculture and climate change meet

ccafs.cgiar.org/bigfacts

CGIAR

RESEARCH PROGRAM ON Climate Change, Agriculture and Food Security

CCAFS

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It also accompanies the quality change: GB beef case

Fat class

(%)	1 and 2	3	4	5
1995	5.6	23.7	68.2	2.7
2012	12.7	32.7	53.5	0.9

Conformation class

(%)	E	U	R	O	P
1995	0.3	14.5	39.2	43.4	2.5
2012	0.8	18.4	41.1	37.0	2.4

Source: AHDB/EBLEX

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In Europe and China

- EU: smaller changes in food structure while fast food, eating out, exotic food increase
- China: dairy and meat consumption per capita up considerably while cereal fell after later 1990s.
- Consumer preferences have moved towards safe, healthy, nutritious and sustainable ‘green’ food.

Food Consumption in Selected Countries in 2009

	World	EU	China	Japan
GDP P. C. (US$)		32021*	6810	32630
Population (M)	6656.9	499	1365.6	126.6
Energy intake (Cal/d)	2830.9	3455.8	3036.0	2723.0
Protein intake (Gr /d)	79.3	105.2	93.8	89.6
Consumption item (Kg /Yr)				
Cereals - Excluding Beer	146.7	125.4	151.4	114.7
Sugar & Sweeteners	23.5	38.8	6.6	27.8
Vegetables	131.8	31.7	321.5	101.6
Meat	41.9	84.8	58.2	45.9
Eggs	8.9	12.1	18.5	19.1
Milk - Excluding Butter	87.3	239.3	29.8	73.9
Fish, Seafood	18.5	23.0	31.0	56.6
Freshwater Fish	6.1	3.5	13.3	4.6

Source: FAO Statistics
*** 2012 GDP figure**

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Main common societal challenges in food safety and standard

1. Co-existence of undernourishment and obesity
2. Differences and misunderstanding in food safety and standards between countries
3. Food scares related crop and animal health problems

Prevalence of undernourishment and obesity (%)

	Children Stunting	Children micronutrient deficiencies and anaemia			Adult obesity
		Anaemia	Vitamin A	Iodine	
World	25.7	47.9	30.7	30.3	11.7
China	9.4	20	9.3	15.7	5.6
Northern Europe		9.3	0.7	58.9	22.9
USA	3.9	3.1	0	15.9	31.8

Source: FAO 2013

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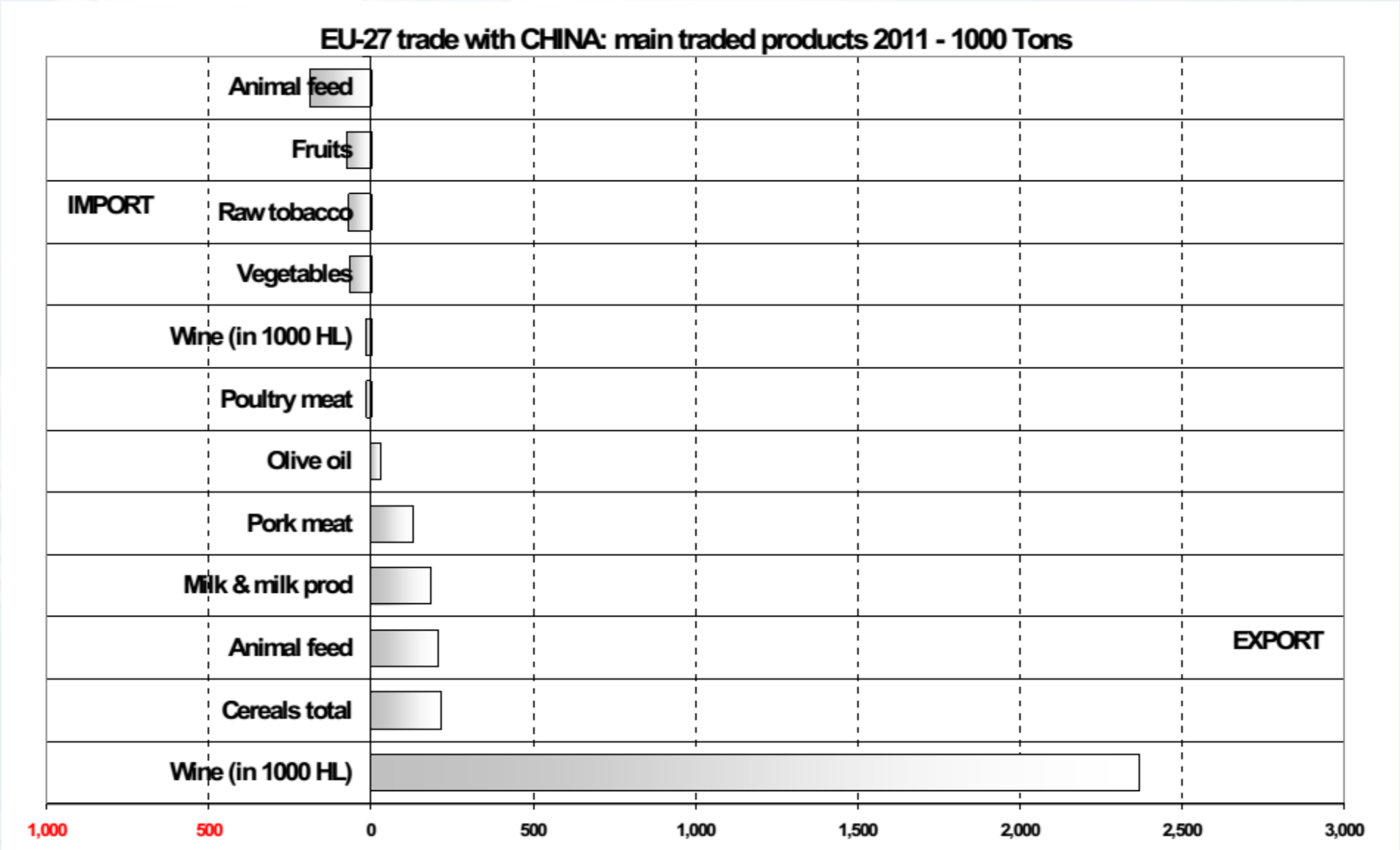
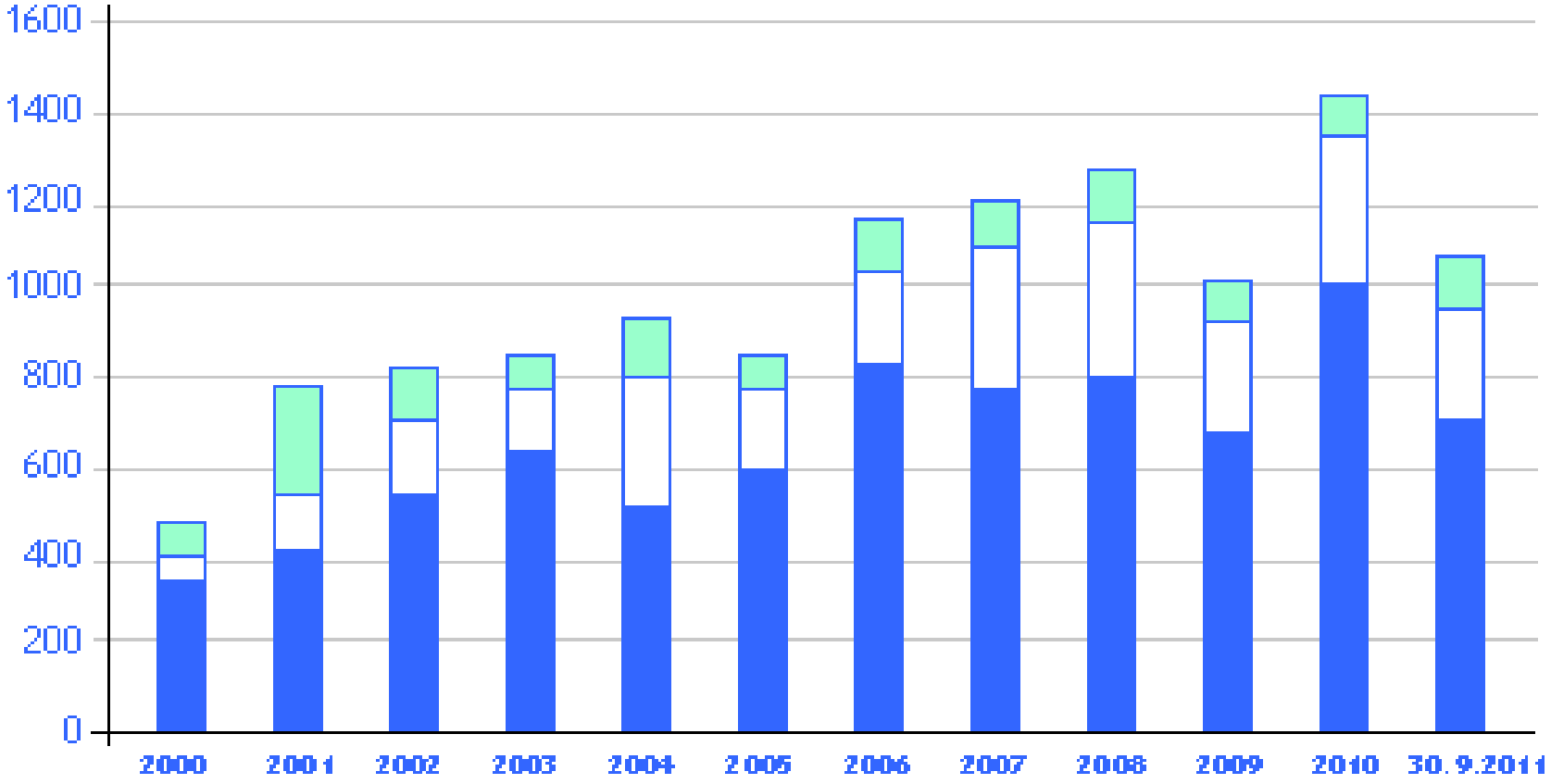


Source: DG AGRI, EC

The next "battlefield" in trade policy

-- SPS notification per year to 09/2011



emergency notifications
additions, alterations and corrections ("addenda" and "corrigenda")
regular notifications

Source: WTO, 2012

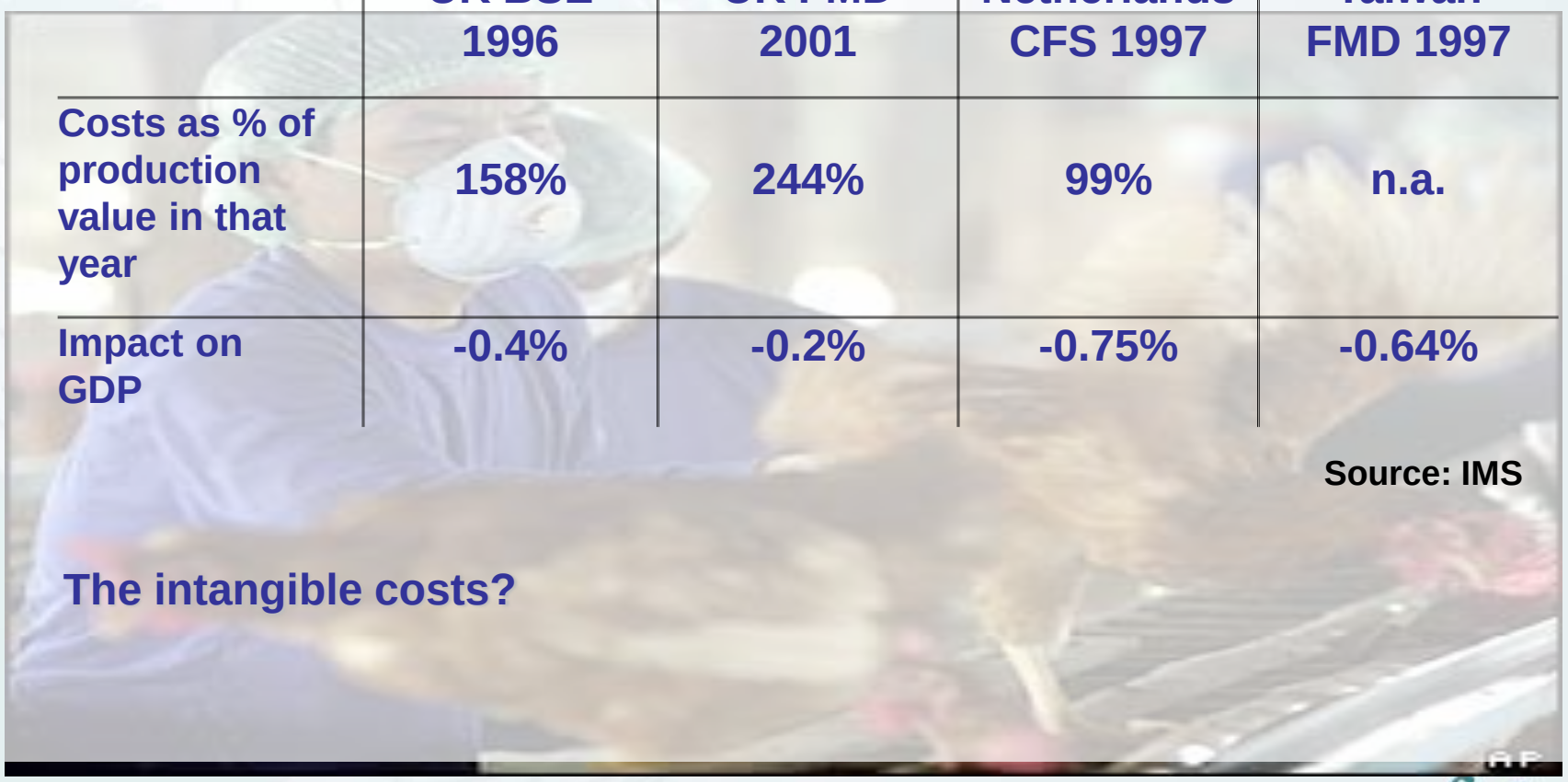
Food Scares

Costs of animal disease impacts

	UK BSE 1996	UK FMD 2001	Netherlands CFS 1997	Taiwan FMD 1997
Costs as % of production value in that year	158%	244%	99%	n.a.
Impact on GDP	-0.4%	-0.2%	-0.75%	-0.64%

Source: IMS

The intangible costs?



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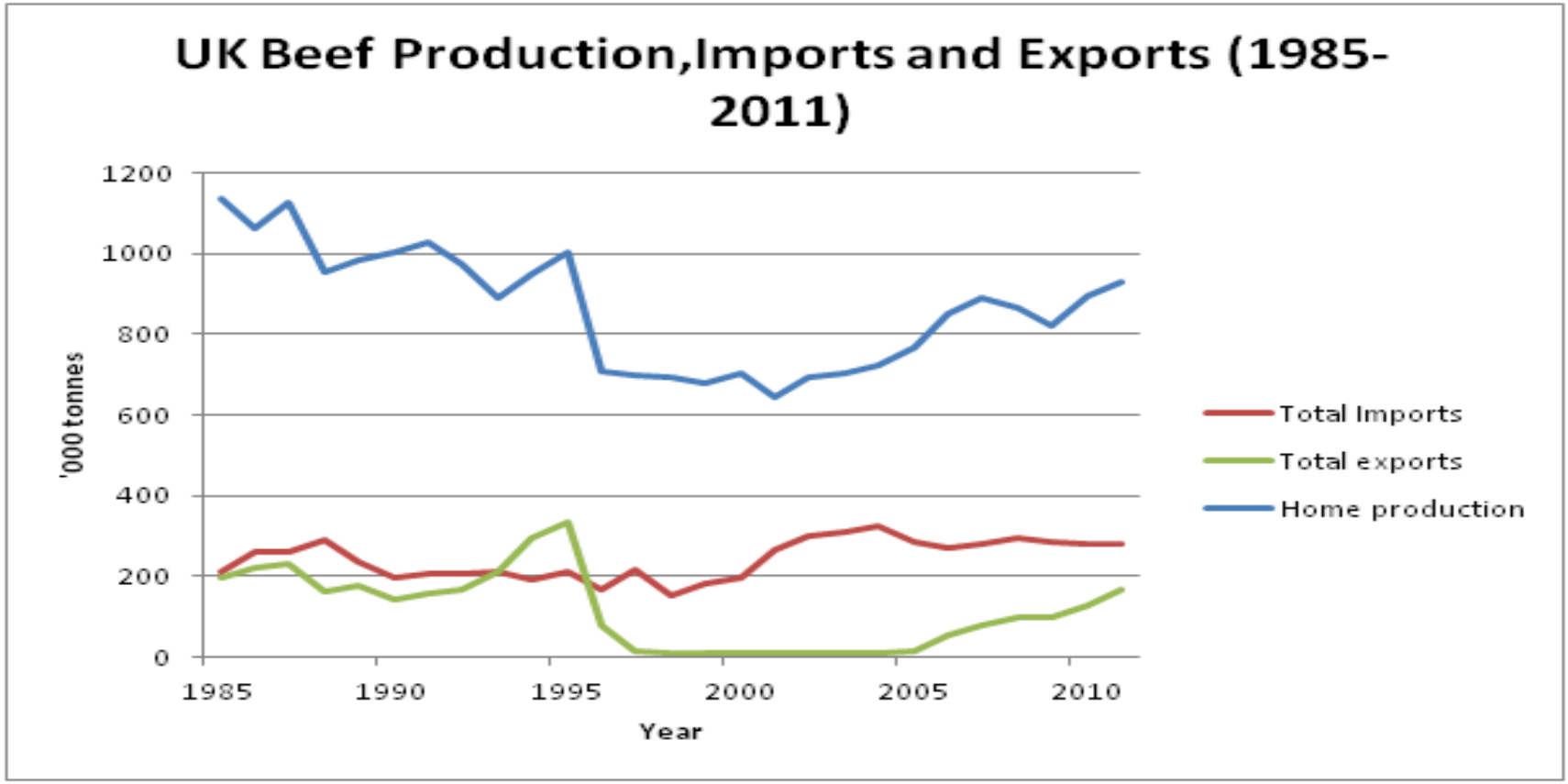
Case of the UK beef sector in last 30 years



Source: DEFRA 2013

WTO News

- WTO members celebrated the 50th anniversary of 186-member Codex Alimentarius, which sets international standards for food safety, by calling, on 27–28 June 2013, for continued support for the body, and for trade measures to be based on science

Sciences needed

- Supply chain to produce cheap convenient food with low salt, sugar and fat contents, but retains good flavour and texture. Specifically, meat and feed quality and standards.

- Processing technologies required for safe and nutritious functional food, of different demand by age, health and genotype. Specifically, those food targeting to reduction of human cardiovascular diseases.

- Harmonisation of food quality and safety standards and implementation system. Specifically, those related to trade and trade disputes between EU and China

- Integrated approach to promote sustainable and science based consumption pattern.

- Advanced livestock based products and cooperation in genetics, epizootics control (including advanced vaccine technology) and epidemiology, especially for pigs and cattle.

- Food toxins early / rapid detection and control

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Thank You for Your Attention