Fish & Seafood Demand in Growth: Sit Back and Enjoy the Ride or Buckle Up Seat Belts and Crash Hats On?!

Imperial College London

Dr. David Hughes

Emeritus Professor of Food Marketing

Asian-Pacific Aquaculture 2013

Saigon Exhibition & Convention Centre

Ho Chi Minh City, Vietnam

Wednesday, December 11th, 2013

APA13 POSITIONING FOR PROFIT

World Population: Who's Going Up and Who's Going Down? Asia Big and Getting Bigger!

	2010	2030	2050
		- billion-	
World	6.9	8.2	9.0
Africa	1.0	1.5	2.0
Asia	4.1	4.8	5.1
Europe	0.7	0.7	0.7
LAC*	0.6	0.7	0.8
North America	0.3	0.4	0.5
Oceania	0.04	0.04	0.05

**Latin America & Caribbean*
Source: UN (population scenario planning)

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China, Weitaiwu

The Cui family spends around $65 per week.

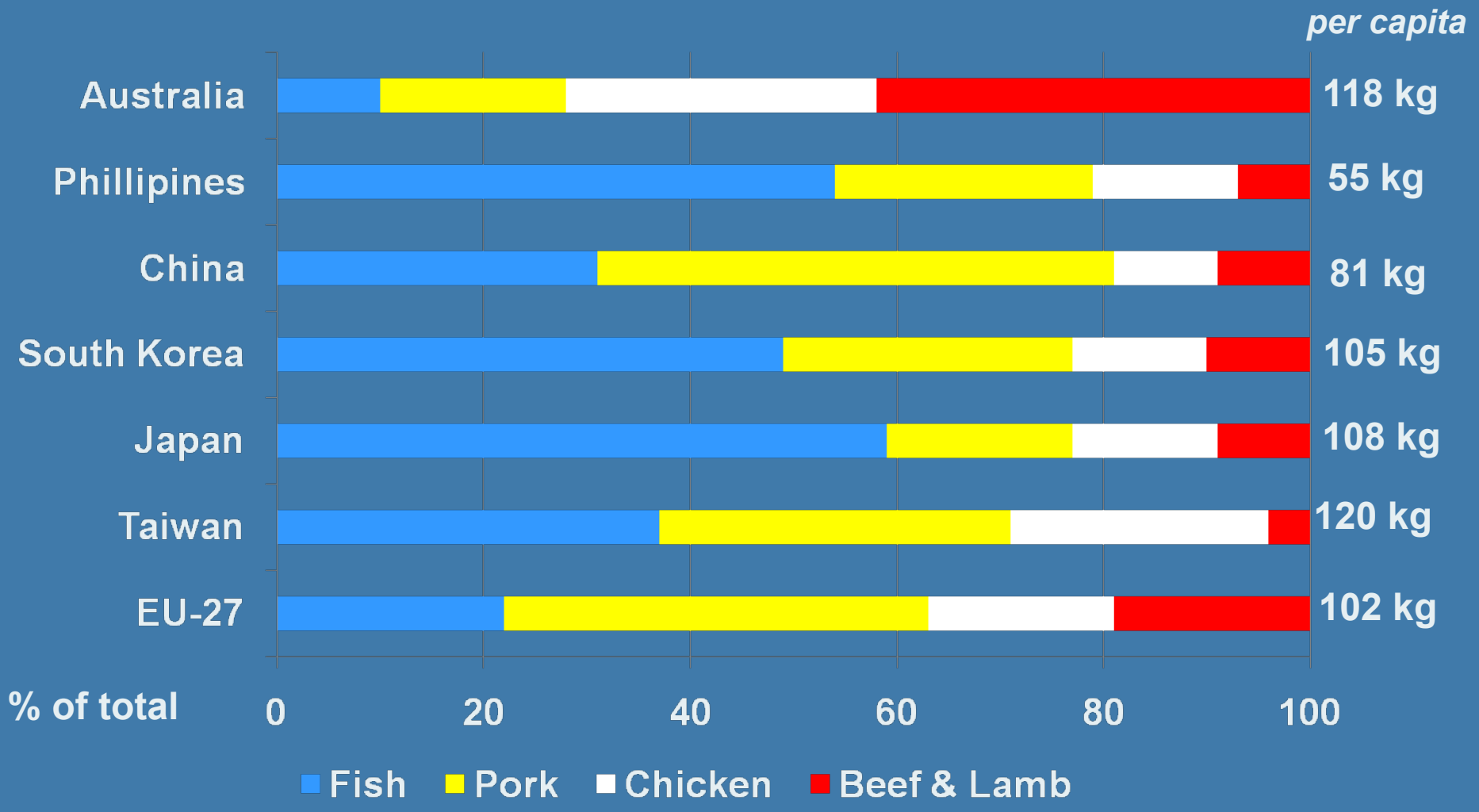
Source: What the World Eats
Peter Menzel and Faith D"Aluisio (2007)

United States, North Carolina

The Revis family spends around $342 per week.

Source: What the World Eats
Peter Menzel and Faith D"Aluisio (2007)

Proportion of Total Meat Consumption by Major Species, Selected Countries



Source: UN FAO database & various Fisheries Departments

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海报有效日期7天

2012 价格有效日期：6月13日 — 6月19日

乐购 TESCO

www.cn.tesco.com

周周8支惊爆

In Australia (and other countries), Chicken is King When it Comes to Convenience and Consumption

	Chicken	Beef	Lamb	Pork	Fish	Other Seafood	Other Meats
Buy Most Often	62%	26%	4%	1%	5%		2%
Best Value	62%	23%	2%	5%	4%		3%
Most Versatile	63%	28%	3%	2%	3%		2%
Is the Healthiest	32%	8%	3%	2%	52%		2%
Eat 1+ times/week	96%	91%	67%	47%	71%	26%	24%
Avg no. times eat/ week	2.1	1.7	0.8	0.6	1.0	0.3	0.3

Source: Pacific Magazine on-line survey and Lenard's, 2011

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World Meat Consumption 2007-2012

	2007		2012	p.a.%
Total meat consumption	282	mill. t.	311	2.0
Of which %:		%		
Pork	33		32	
Poultry	24		26	
Fish & seafood	21		23	
Beef	18		16	
Sheep/lamb	4		3	

Global meat consumption increased by 29 million tonnes between 2007 & 2012 and most of growth was in emerging countries – predominantly China - and was for chicken and fish

Source: GIRA and Hughes

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Global Meat Consumption by Species: The Big Battle is Between the "White" Meats!

	Percent Total
Pork*	32
Poultry	26
Fish & Seafood	23
Beef	16
Lamb	3

Premium-Priced, Minor Aspirational Meats

Global Meat Consumption: 315 million tonnes

Sources: GIRA, FAO, Hughes

- In North America, pork is often positioned as the "Other White Meat"

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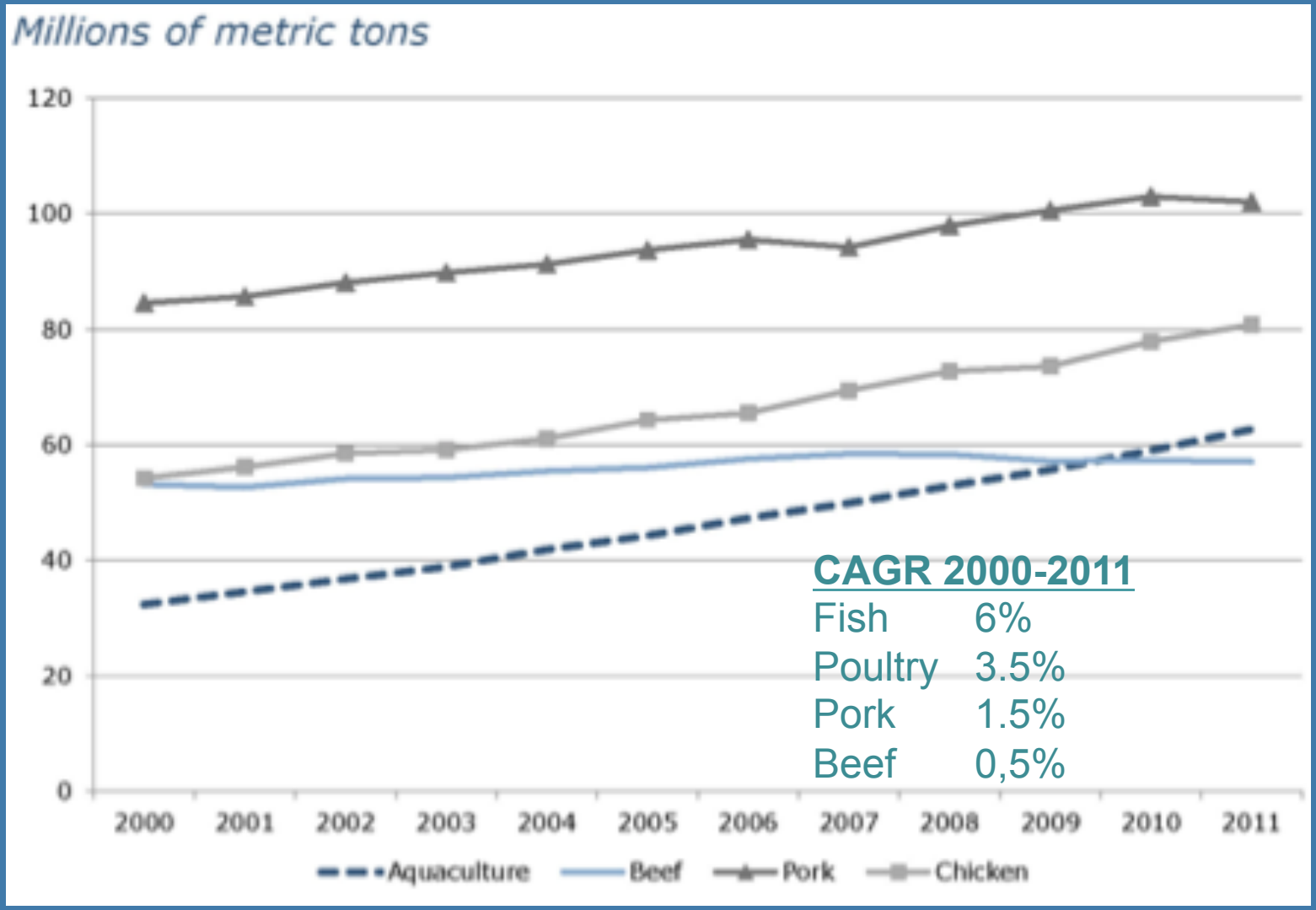
Global Fish Production has Overtaken Beef and Gaining on Pork and Chicken



Source: Rabobank (FAO & USDA)

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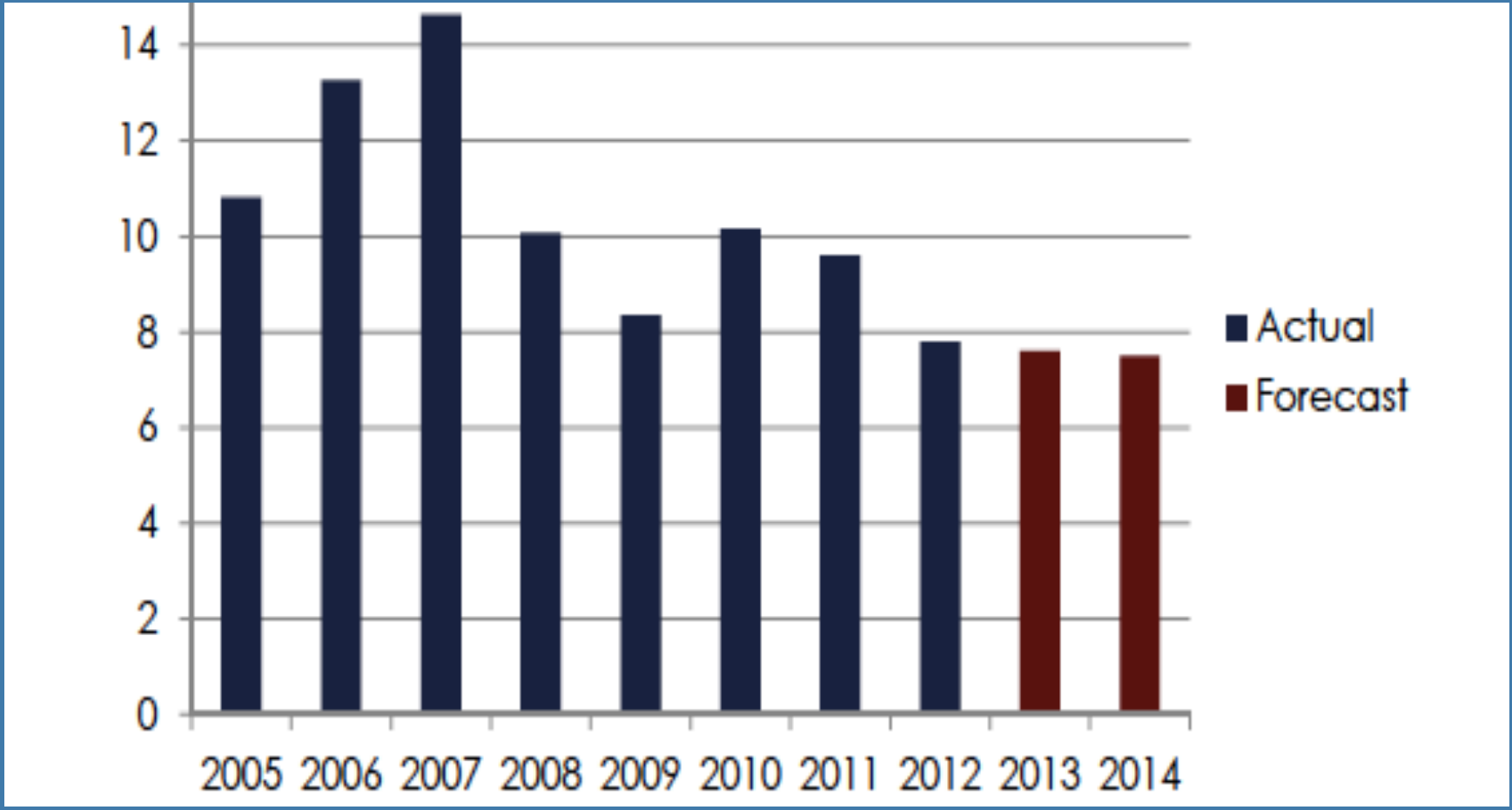
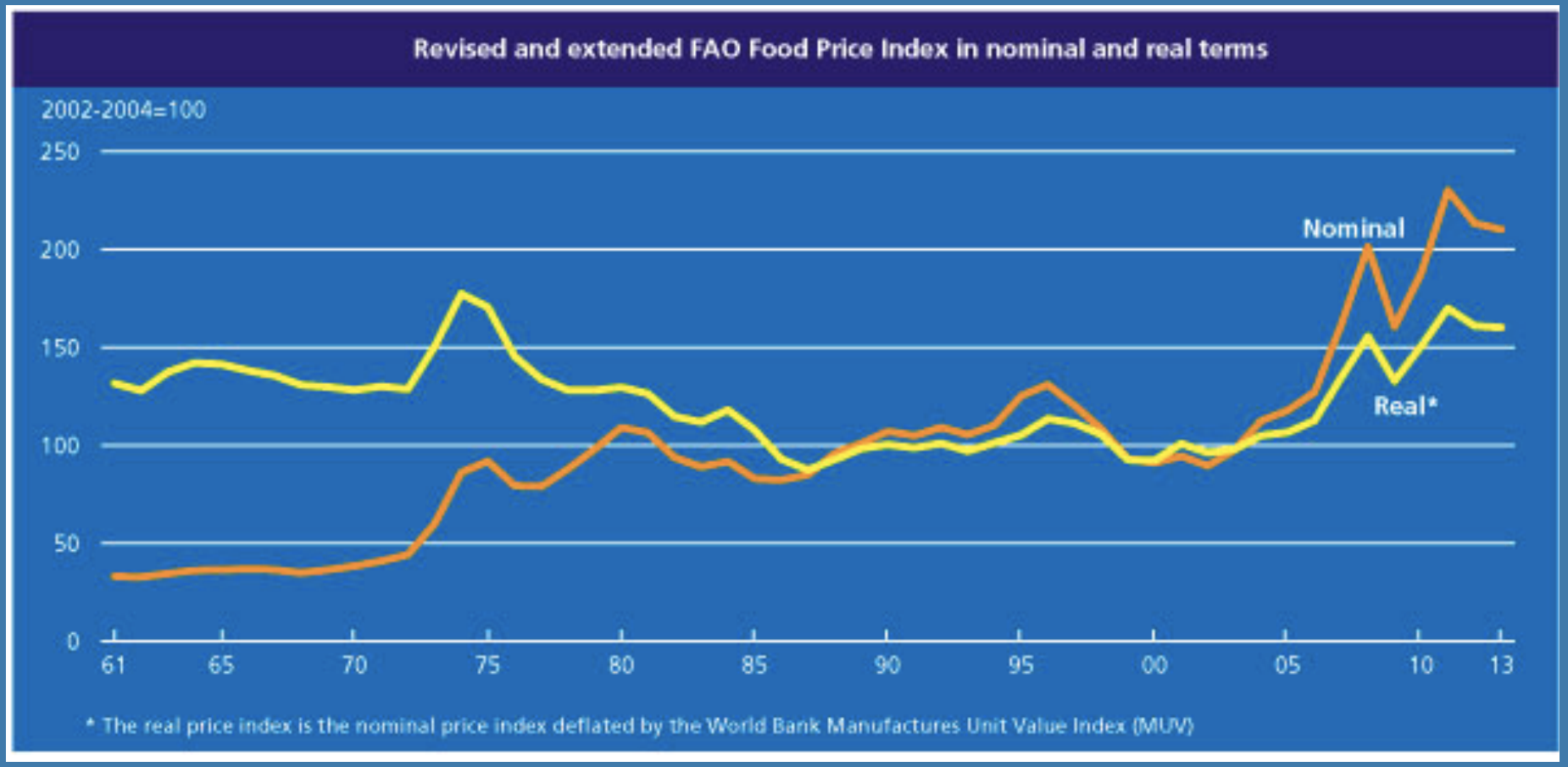
China's Growth Outlook Less of Concern in 2013

Real GDP Growth, Annual Percentage Change



FAO Global Food Price Index: 1990 to 2013*



Source: FAO * to November 2013, December 5th, 2013

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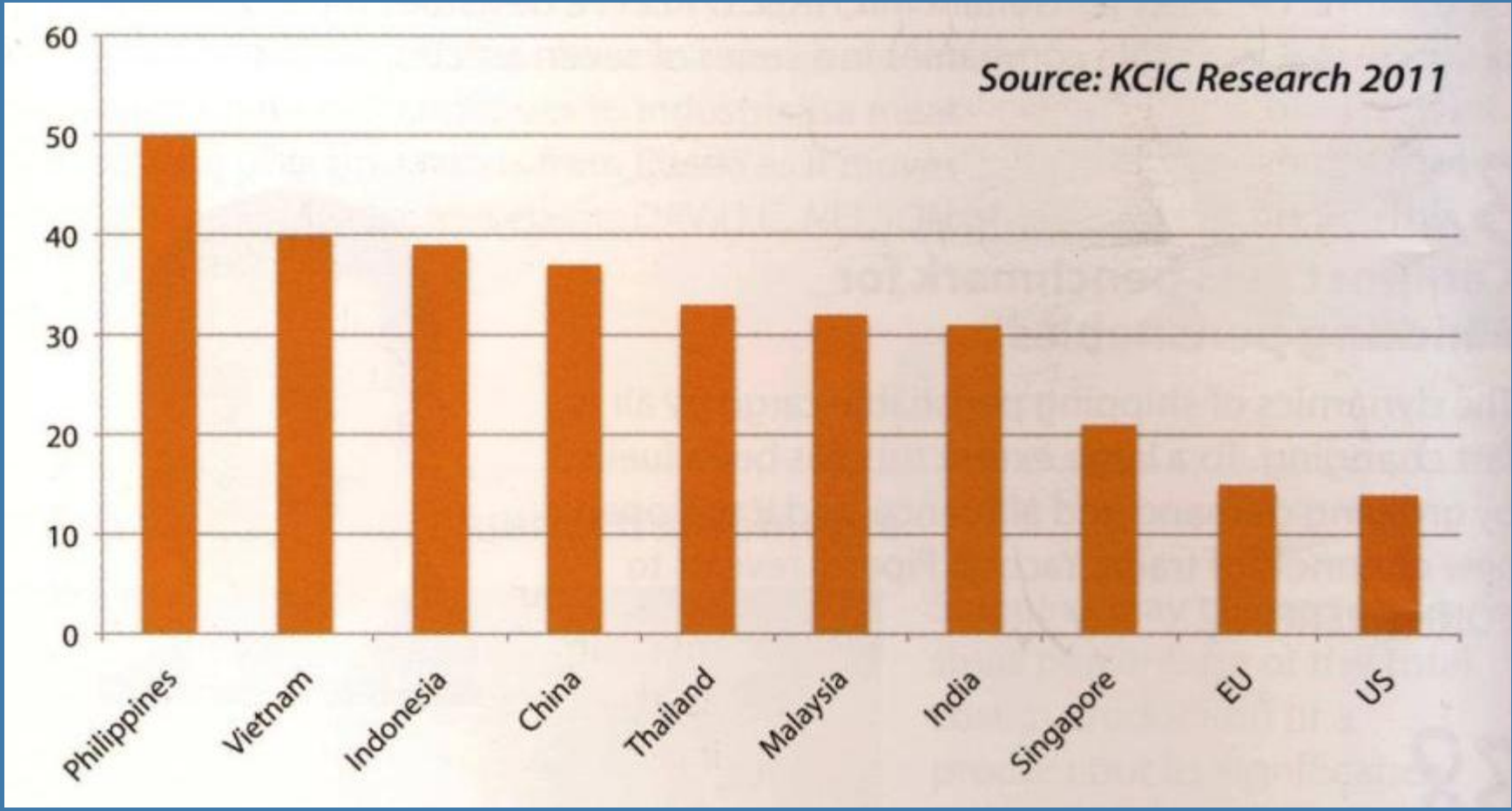
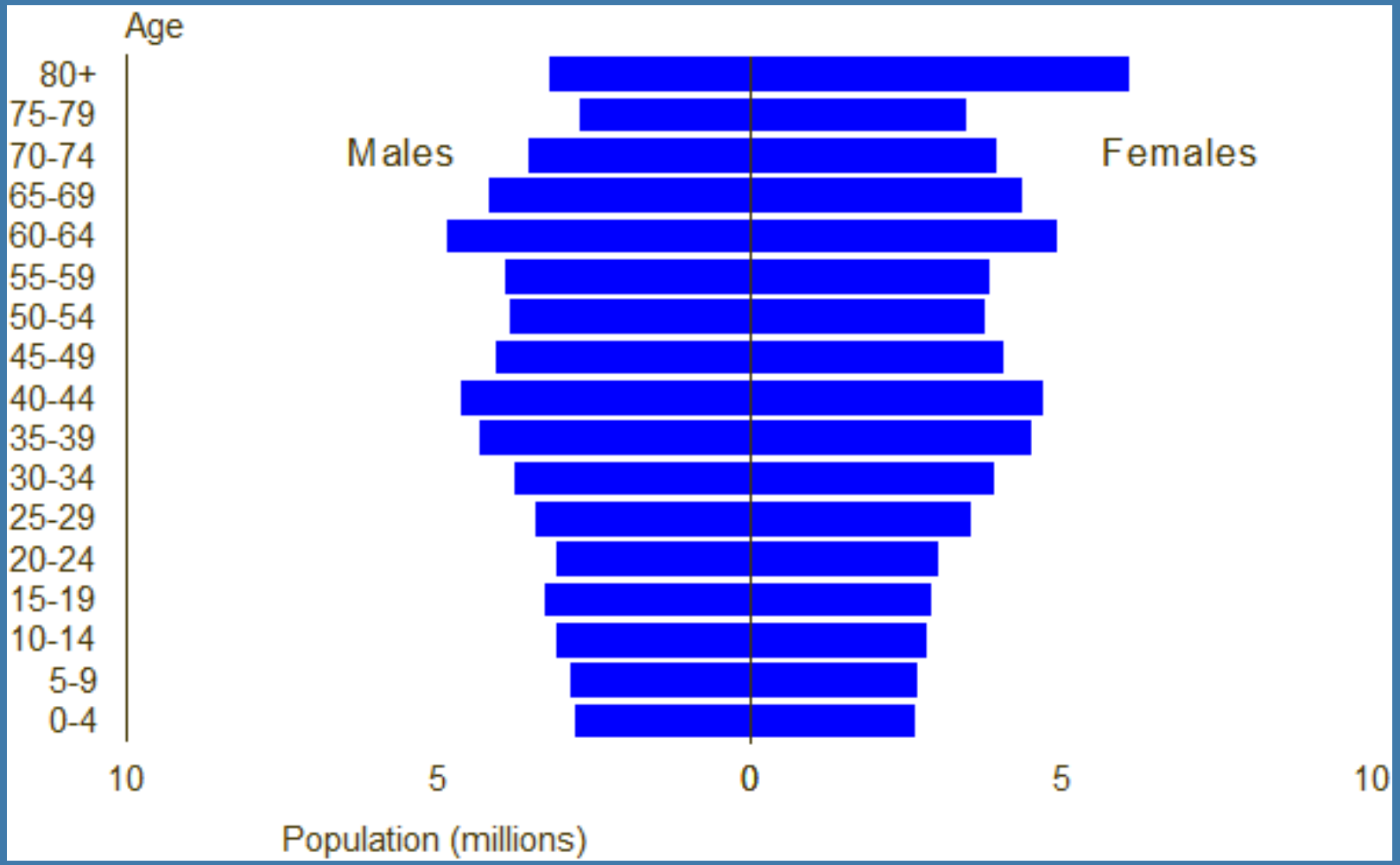
Importance of Food in the Consumer Price Index, Selected Countries, 2010



Age Profile of Japanese Population: A Country Where Fish Consumption is Number 1 in Meats



Source : UN, 2011

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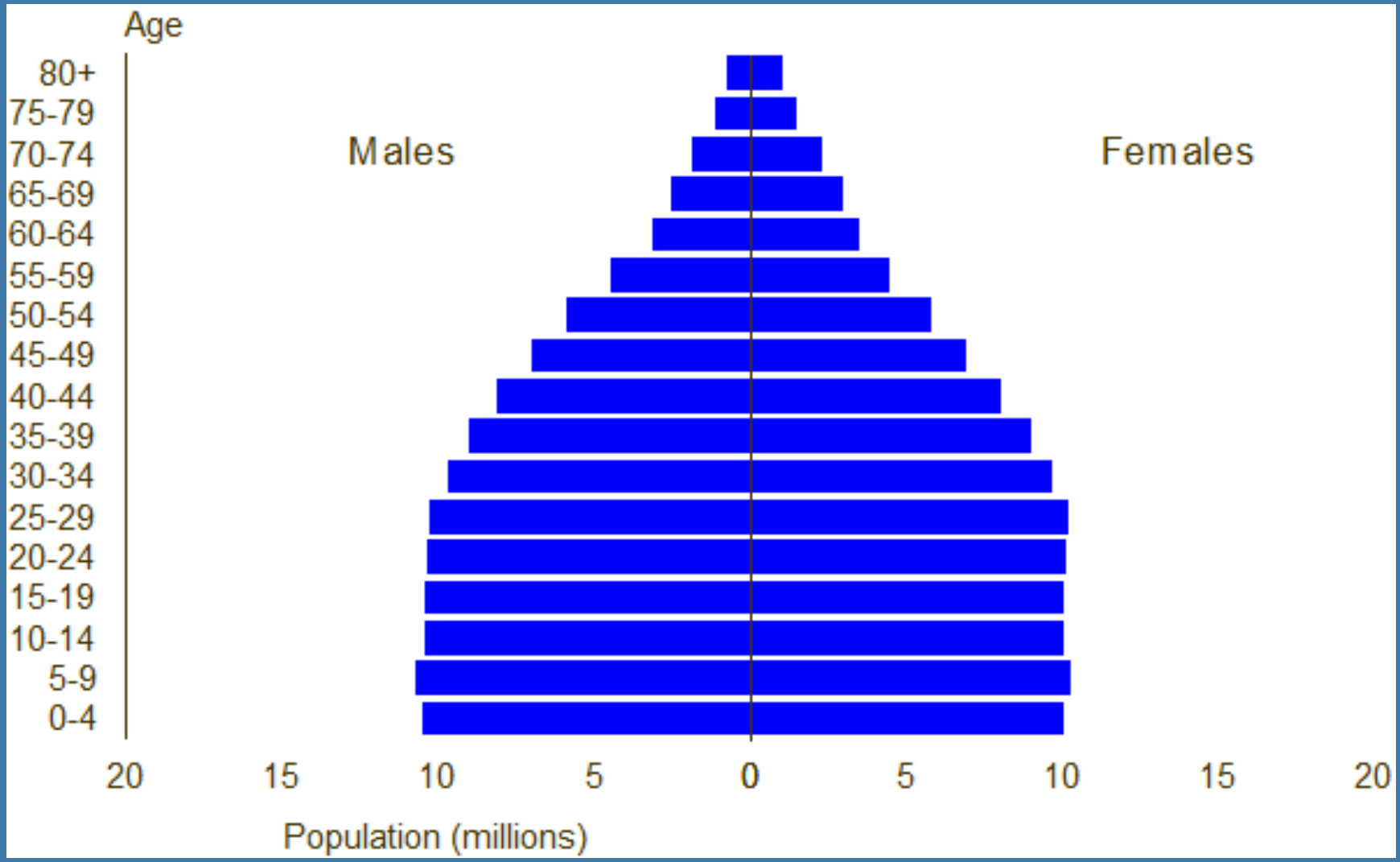
And For the World's 4th Most Populated Country: Indonesia!



Source : UN. 2011

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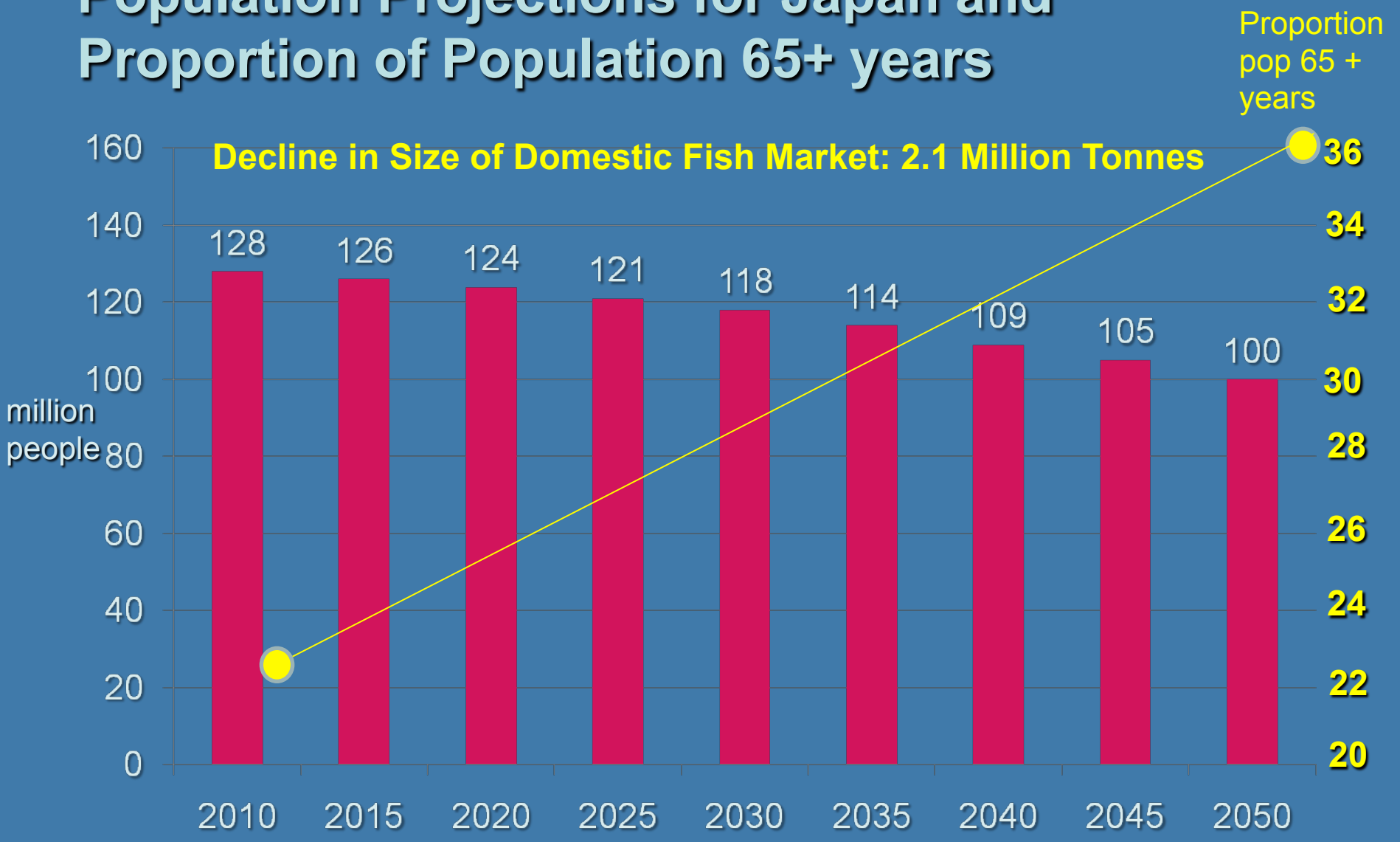
Population Projections for Japan and Proportion of Population 65+ years



Source: National Institute of Population & Social Security, Gov. of Japan

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Low or No Meat Market Growth in Most Developed Countries BUT Fish & Seafood Buck this Trend

- Population growth slow or declining
- Ageing population with reduced food intake
- Concerns about ***RED*** meat/fat impact on health*
- Social pressures: concern about GHG-intensive products; and guilt about "inefficient" grain-fed red meat in a food insecure/scarce world
- For lower income group, migration to lower-priced products (cheap chicken/fish – tilapia/pangasius
- But, for older, higher income groups, expensive "special treat" fish & seafood meals have appeal**

* Particularly, older consumers; exacerbated by periodic meat industry safety scares
** albeit with "small" portion sizes (e.g. 110/120 grms. per plate)

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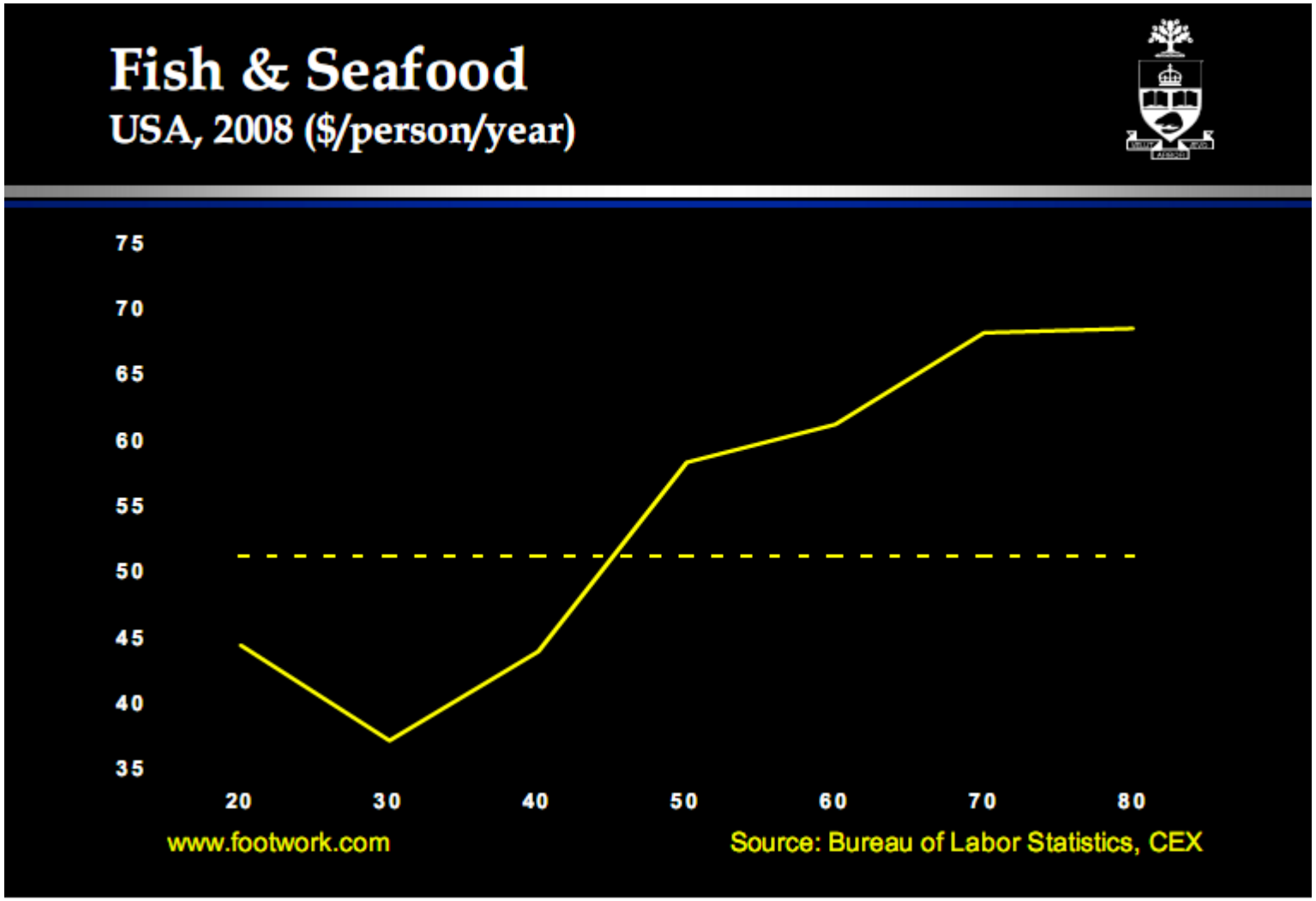
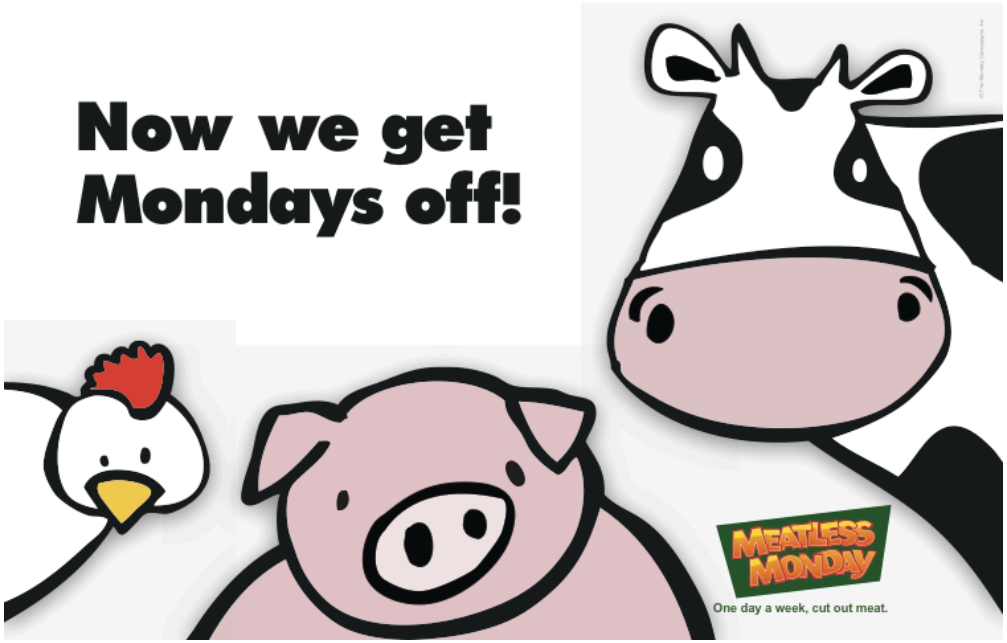
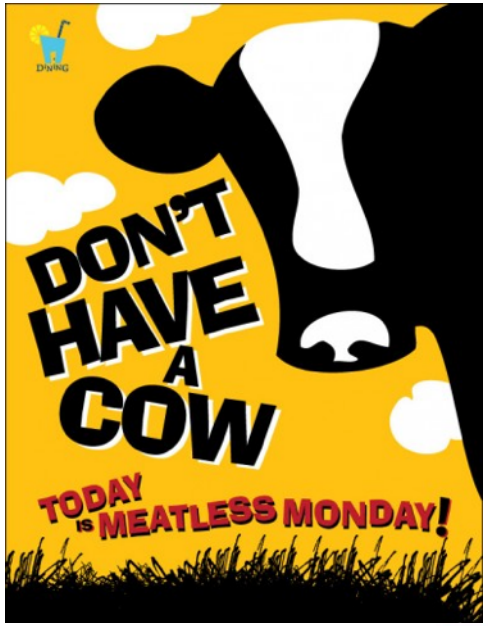
In Many Developed "Western" Countries, Fish Expenditure Increases Significantly as Consumers Age



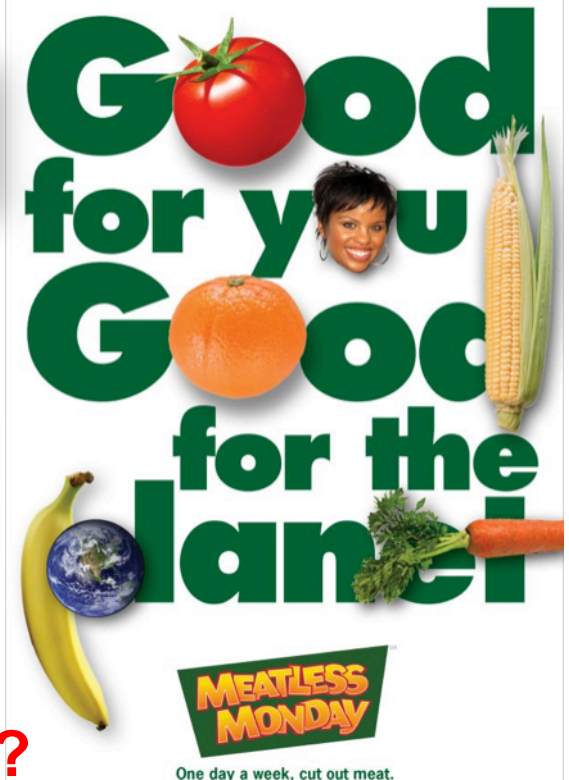
Source: David Foot, Boom, Bust and Echo


Dry Aged Beef
Dry aging is a slow, traditional process for aging fine meats. The procedure uses dry air, causing the natural enzymes in the meat to break down the muscle fiber, which enhances the meats tenderness and produces a juicier cut with a roasted, beefy taste
Beef Cuts





Los Angeles Public Schools Implement Meatless Mondays For Student Health February 2013



Opportunity for Low Carbon Footprint Fish?


680 g
SeaQuest
LESS · BONELESS
S PEAU · DÉSARÊTÉS
asa Fillets
Filets de pangasius
SeaQuest®
KINLESS · BONELESS
ANS PEAU · DÉSARÊTÉS
asa Fillets
lets de pangasius

It is Becoming Increasingly Easy

To Mimic Taste/Mouth Feel of Processed Fish

And Brands in Replacement Meat

Nutrition Facts

Serving Size 3oz (85g about 7 strips)
Servings Per Container: 4

Amount Per Serving	
Calories 130	Calories from Fat 30
	% Daily Value*
Total Fat 3.5g	**5%**
Saturated Fat 0g	**0%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 400mg	**17%**
Total Carbohydrate 6g	**2%**
Dietary Fiber 2g	**8%**
Sugars 0g	
Protein 20g	

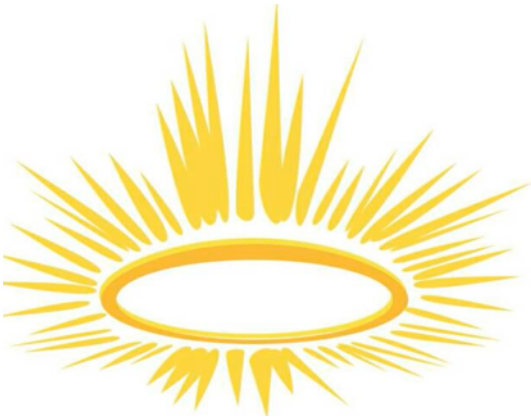
Vitamin A	0%	• Vitamin C	2%
Calcium	6%	• Iron	30%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg

BEYOND
meat

WHOLE FOODS® MARKET



Old Chinese Proverb

For healthy meat:
No Legs Best, then, Two
And Four Legs Last!!

Fish has a Huge Health Halo

Around the World

Reasons for Choosing Specific Dishes for Evening Dinner in Australia

	Convenience	*Taste*	*Healthy*	*Inexpensive*	*Other*
Top Choice Beef Steak & Veg	50	30	11	3	6
No. 8 Choice Fish Grill/Fry & Veg	31	28	36	0	6
No. 10 Choice Roast Lamb & Veg	19	63	9	0	9

In Australia, like in the UK, Fish is a Maximum 1 Main Meal per Week Choice

Source: MLA, 2009

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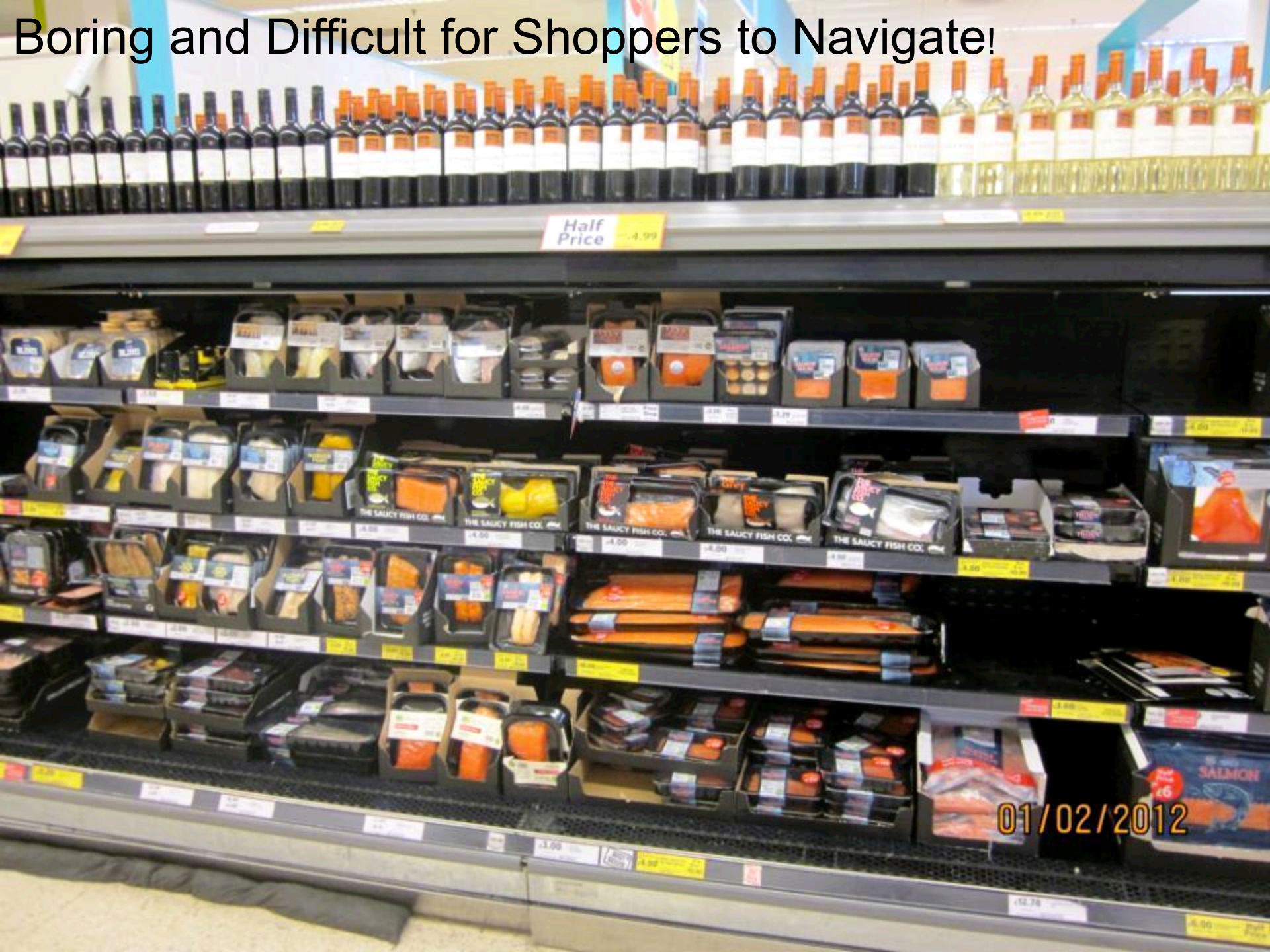
What Does the Shopper/Consumer Research Show? In Many "Developed" Countries Purchases Constrained By:

- Lack of knowledge about – how to buy (e.g. quality, amount), how to prepare, cook and even eat!
- Concern about negative reaction of family
- Concern about smells/bones/mess/preparation time
- Fish not in narrow range of "low-risk" meal repertoire
- Perceived expense/high price of fish and seafood
- Easier, indeed often a treat, to eat out-of-home
- Local preferred over scary imported sources of fish
- **But**, perceived as intrinsically healthy, and shoppers respond well to better range/quality/convenience, less "fishy fish", and customer service in-store

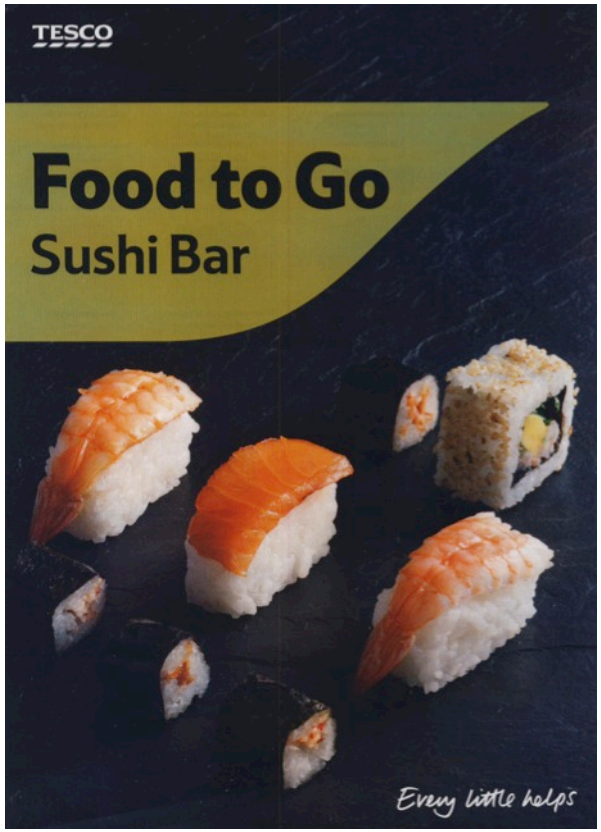
Trying Hard in Tesco UK but No Fish Expertise!

Boring and Difficult for Shoppers to Navigate!



Who Captures the Consumer Value?

Fish & Seafood are the Raw Materials which The Brand Owner Adds Value to!


TESCO
Food to Go
Sushi Bar
Every little helps


TESCO
Food to Go
Sushi Bar 6 pieces for £3

TESCO


WASABI

Per Capita Fish Consumption in Portugal is the Same Level As Japan and Six Times (6X) that of the UK: Selling Fish is A Substantial Challenge in Some Western Countries


Carrefour
家乐福
KFC
CITY BOAT


71.00
73.00
97.00
73.00
千岛湖
中国名牌
清溪甲鱼

Nelson Street Wet Market
Kowloon, Hong Kong


Sai Kung Wet Market
Hong Kong

Biggest Threats to Aquaculture & Seafood Industry

- Perceived industrialisation of fish and seafood
- A significant food safety incident – “Mad Fish Disease”!
- A significant supply chain integrity problem (“Fishgate”)
- Commoditisation of the industry stripping out value

THE Sun
BRITAIN'S MOST POPULAR PAPER
Friday, February 8, 2013
40p
thesun.co.uk


Accused . . . Dale Cregan

COPS 'KILLER STANDS TRIA

THE trial began yesterday of a man accused of ing two women cops in a gun and grenade attack Dale Cregan, 29, denies murdering PCs Ni Hughes, 23, and Fiona Bone, 32, in Hatter Greater Manchester, in September last year.

Full Story — Pages Eight and Nine

EXCLUSIVE

IT'S SHERGAR & PASTA

99% HORSE IN FINDUS LASAGNE

Alert . . . food firm's pasta dish

By STEVE HAWKES

BEEF lasagne meals sold by Findus were up to 99 per cent horse, it emerged last night.

Samples tested triggered fears they also contained a cancer-causing painkiller used by vets.

Ministers were rapped over the scandal and customers warned to take meals back to shops.

Full Story — Page Four

And traces of animal painkiller

DAILY STAR

THE NEWS..
THE GOSS..
THE PICS..
THE SPORT

SATURDAY, FEBRUARY 23, 2013 WWW.DAILYSTAR.CO.UK 55p

QUEEN EATS HORSE

Dodgy meat served at Royal Ascot

THE Queen was last night caught up in the horse meat scandal after Royal Ascot food suppliers withdrew their beef. The move sparked fears that Her Majesty has eaten h flesh at her favourite race meeting.

Full story: Pages 8-9


Lets run before they
Findus

Tesco Apologises for “Horsegate”

We apologise

You have probably read or heard that we have had a serious problem with three frozen beef burger products that we sell in stores in the UK and Ireland.

The Food Safety Authority of Ireland (FSAI) has told us that a number of products they have recently tested from one of our suppliers contained horsemeat.

While the FSAI has said that the products pose no risk to public health, we appreciate that, like us, our customers will find this absolutely unacceptable.

The products in our stores were Tesco Everyday Value 8 x Frozen Beef Burgers (397g), Tesco 4 x Frozen Beef Quarter Pounders (454g) and a branded product, Flamehouse Frozen Chargrilled Quarter Pounders.

We have immediately withdrawn from sale all products from the supplier in question, from all our stores and online.

If you have any of these products at home, you can take them back to any of our stores at any time and get a full refund. You will not need a receipt and you can bring back just the packaging.

We and our supplier have let you down and we apologise.

If you have any concerns, you can find out how to contact us at the bottom of this page, or go to any of our Customer Service Desks in store, or ask to speak to your Store Manager.

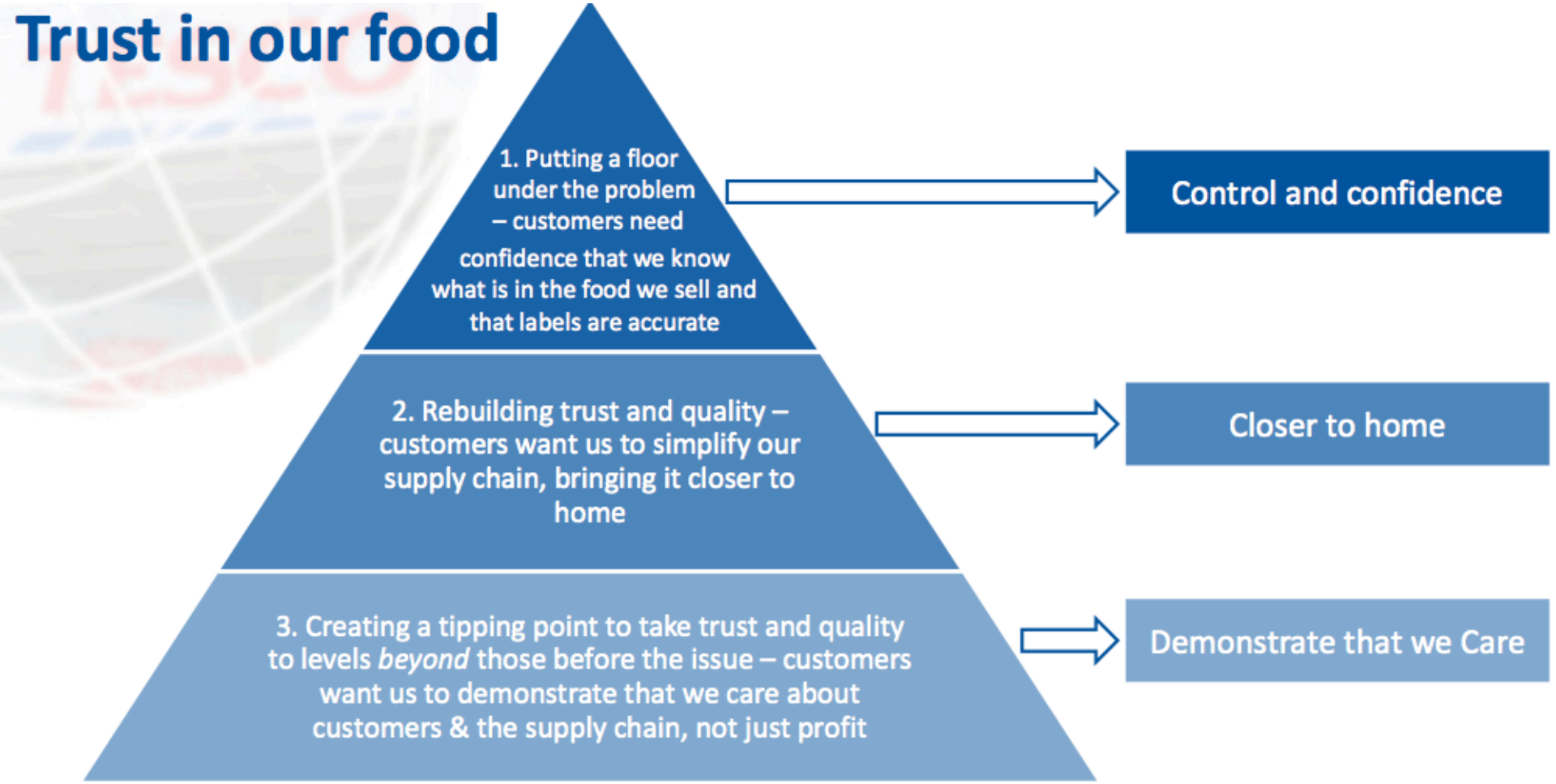
So here's our promise. We will find out exactly what happened and, when we do, we'll come back and tell you.

And we will work harder than ever with all our suppliers to make sure this never happens again.

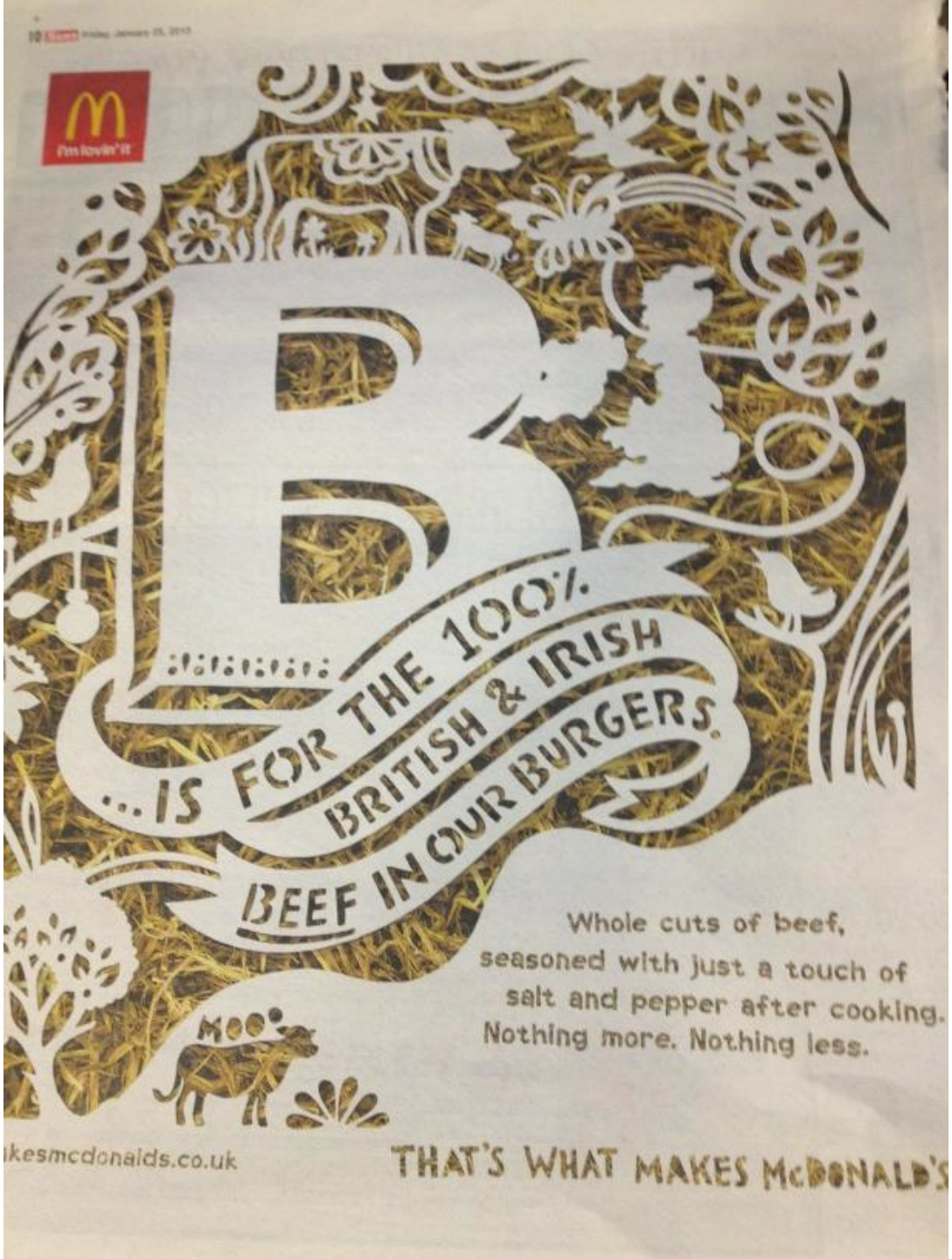
TESCO

Imperial College London

Immediate Response by Tesco to "Horsegate"



i'm lovin' it™


I'm lovin' it
B
...IS FOR THE 100% BRITISH & IRISH BEEF IN OUR BURGERS.
Whole cuts of beef, seasoned with just a touch of salt and pepper after cooking. Nothing more. Nothing less.
MOO
ikesmcdonalds.co.uk
THAT'S WHAT MAKES McDONALD'S

McDonald's in Australia And New Zealand

Share

TrackMyMacca's™

Turn your iPhone into an ingredient tracker and get the lowdown on some of your Macca's favourites.

January 25, 2013

HUFF POST FOOD

McDonald's Sustainable Fish: All U.S. Locations To Serve MSC-Certified Seafood

In New Campaign, McDonald's Plugs Alaskan Pollock

By Lauren Rosenthal
Friday, January 25 2013

This week, McDonald's doubled down on its commitment to Alaskan pollock. The chain announced that it will stop using other fish and switch to 100 percent Alaskan pollock in all 14,000 of its United States restaurants.

The pollock is served in Filet 'o' Fish sandwiches, and in a new menu item

McDonald's tests new product Fish McBites for menu

Fish McBites are popping up on McDonald's menu in parts of Texas, just in time for the Lenten season for Catholics.

Texas Christian University students in Fort Worth are already sampling the miniature, poppable fish bites on campus this week until Thursday, according to Grub Grade blog. The fish McBites, which come with tartar sauce, will be available for a limited time.

McDonald's created the similar chicken McBites last year for a limited time.

Meat Safety and Supply Chain Integrity. Big Deal Everywhere Particularly China

Where Did They Come From?

CNNMoney
A Service of CNN, Fortune & Money

THE RISE OF CHINA

Bird flu eats up Yum profits in China

By Charles Riley @CRrileyCNN April 23, 2013: 11:21 PM ET

PHOTO: PETER PARKS/AFP/GETTY IMAGES

REUTERS BREAKINGVIEWS

Scandal, rivals diminish China's appetite for KFC

China is eating less KFC chicken, and that has hurt sales at the chain's U.S. owner, **Yum Brands Inc.** Revenue at the group's comparable Chinese branches fell 11 per cent in the third quarter, year on year. While last year's fears of antibiotic-laced Zinger Burgers didn't help, fierce competition has also made the company a less reliable bellwether of Chinese appetites.

Yum is still a China success story.

Sales in the region make up more than half of the group's total, compared with a third just five years ago.

It has twice as many outlets now as it did in 2008. Unlike other global brands such as McDonald's and Starbucks, it gives clear data on its sales and margrowth hormones. That may have damaged the extra trust consumers afforded to foreign brands.

Yum just cut its earnings forecast for the year, and has abandoned its claim that Chinese same-store sales would turn positive in the fourth quarter.

Even when it shakes off its troubles, Yum can no longer hope to grow just because China does.

Competition is fierce. Just as KFC adapted its menu to suit local tastes, selling items such as fish ball soup alongside Western classics, ambitious local competitors like ramen chain Ajisen and Country Style Cooking have picked Western-style fast food management and cost saving measures. Both reported same-store sales growth in their

CHINA DAILY
中国日報
chinadailyasia.com HK$

New Zealand milk stokes fears

Chinese firms recall products exposed to contamination

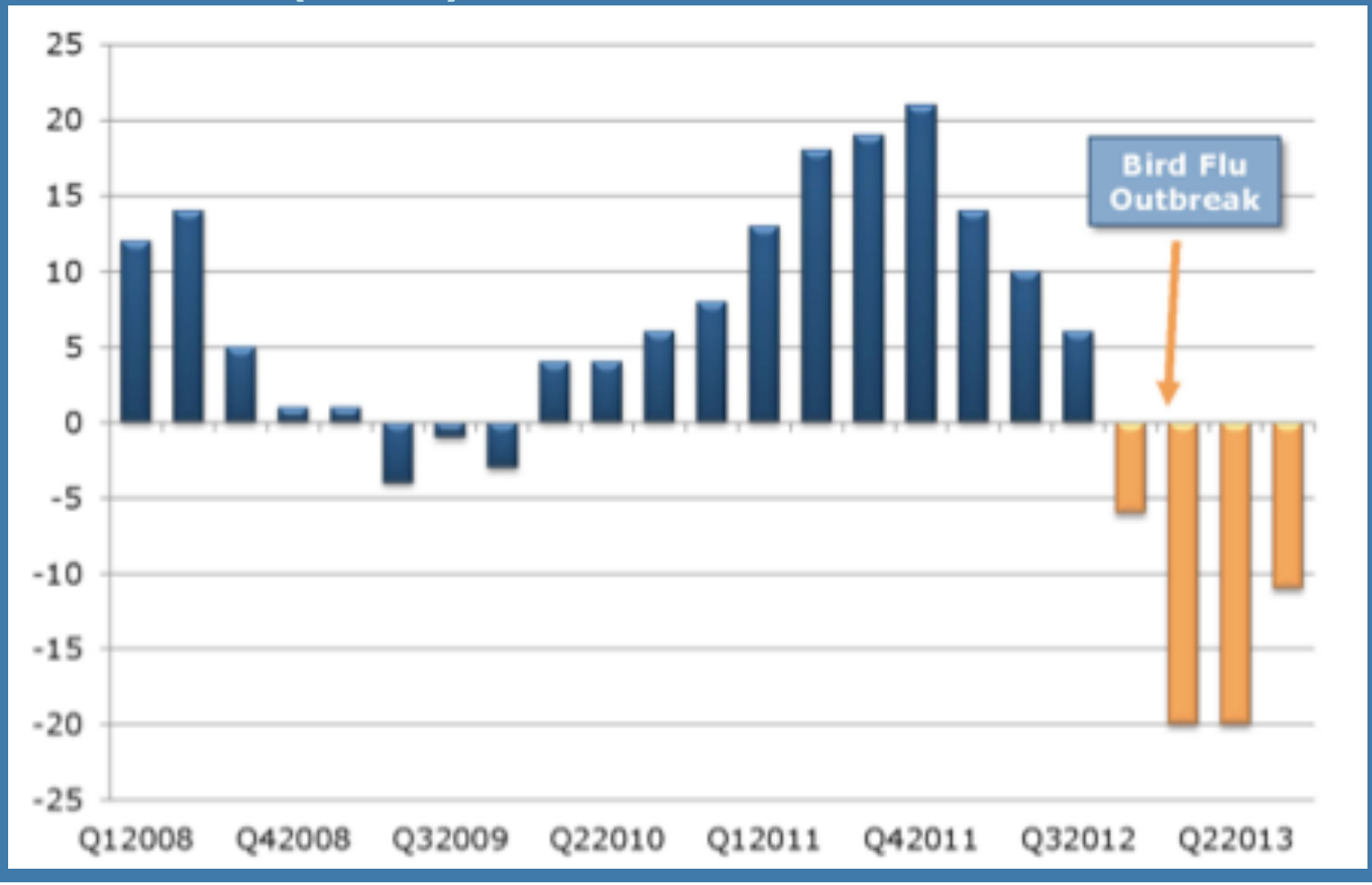
By ZHOU WENTING in Shanghai
zhouwenting@chinadaily.com.cn

SOUND BITES

"I insisted on breastfeeding for 22 months after my baby was born, mainly because I was worried about the safety of dairy products. Now I pre-

Avian influenza Still Affecting Demand for Chicken in China

Yum! (KFC) China Same Store Sales



Source: Rabobank, 2013 and Yum! press releases

THE DOMINION POST

THE NATIONAL BUSINESS REVIEW

The big coverup? The DCD residue debacle

China sours on New Zealand's milk powder

Secrecy over milk DCD scare revealed

South China Morning Post 南華早報

INSIGHT & OPINION

MON Oct 14, 2013 Updated: 2:33pm

Fonterra has clearly forgotten the lesson from melamine milk scandal

NZ dollar slides amid Fonterra food scare

AAP

'Suitcases of cash' in kiwifruit scandal

100% PURE NEW ZEALAND

100% PURE NEW ZEALAND

For Fish and Seafood: Lily White or All Black?

Values: For Shoppers, It's Not ONLY about Price

PRICE

PROMOTIONS

ETHICS

SUSTAINABILITY

VALUE

VALUES

PACK SIZE

PERFORMANCE

PROVENANCE

HERITAGE

Source: IGD 2012

Imperial College London

FREE FROM™

raised without the use of antibiotics

raised without the use of hormones
(all chicken and pork is raised without the use of hormones)

PC® Free From™ strip loin steak
cut from Canada AAA or USDA Choice grade beef
28.64/kg
12.99/lb
SAVE $8/lb

PC® Free From™ boneless beef stew
cut from Canada AAA or USDA Choice grade beef
17.61/kg
7.99/lb
SAVE $1/lb

SAVE $1/lb
5.99/lb PC® Free From™ pork loin roast
boneless, centre-cut 13.21/kg

SAVE $2/lb
6.99/lb PC® Free From™ pork tenderloin
15.41/kg

11.49/lb PC® Free From™ chicken breasts or cutlets fresh air chilled boneless skinless 25.33/kg

8.49/lb PC® Free From™ chicken thighs fresh air chilled boneless skinless 18.72/kg

SAVE 50¢
4.49 PC® Free From™ sausages
selected varieties fresh
500 g

SAVE $2
11.99 PC® Free From™ Angus beef burger
frozen 1.02kg

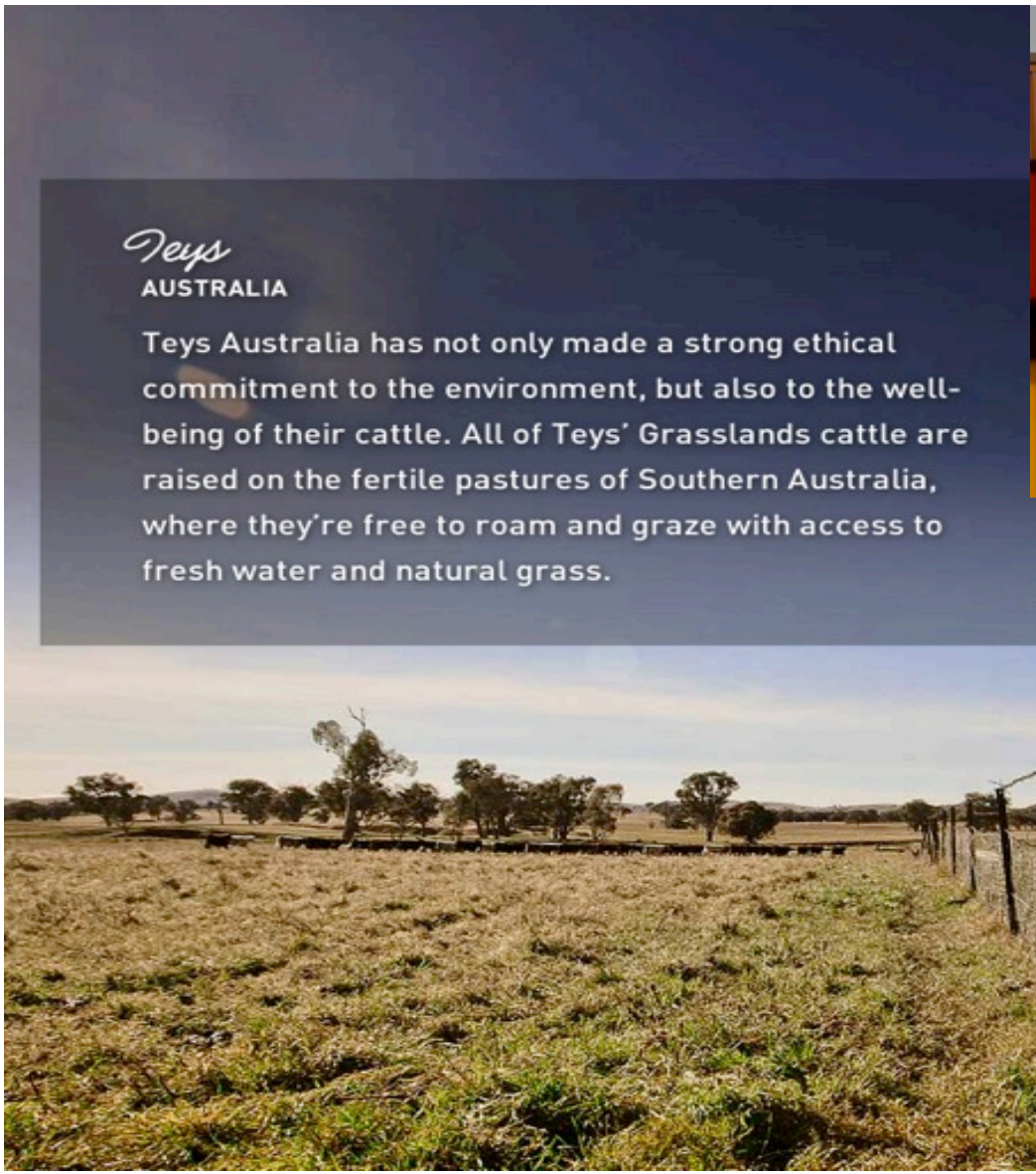

Introducing
OPEN NATURE
100% natural
100% Natural
✓ Raised Without Antibiotics
✓ No Added Hormones*
✓ All Vegetarian Fed
✓ No Artificial Ingredients
✓ Minimally Processed


Angus Beef
Applewood Smoked
Uncured Bacon
Smoked Andouille
Spinach & Feta
Mild Italian
Sweet Apple & Maple

SAFEWAY


WHOLE FOODS MARKET
5-STEP ANIMAL WELFARE RATING™
STEP 1 NO CAGES, NO CRATES, NO CROWDING
STEP 2 ENRICHED ENVIRONMENT
PASTURE CENTERED
No Hormones
Dry Aged Beef Strip Loin New York Steak $7.29 100g
Beef Loin Tenderloin Steak (Filet Mignon) $7.89 100g
Beef Rib Eye Steak Boneless $5.19 100g
Beef Loin T-Bone Steak $5.59 100g
Beef Short Ribs $1.69 100g
Lamb Shoulder Roast Bone-In
Imagine Organic Biologique
LOW SODIUM FAIBLE EN SODIUM
BEEF BROTH

A&W will look outside of Canada for beef produced without growth promotants



European Consumers' Perceptions on Differences between Wild and Farmed Fish

Wild Fish	*Farmed Fish*
Natural, fresh, "organic"	Unnatural
As nature intended	Against nature
Familiar	Unfamiliar, novel
Trusted	Concern with mass production
Local	Industrial
Fair	Unequal profit distribution
Expensive	Cheaper
Heavy metals	Chemicals and antibiotics
Overfishing	Habitat destruction

Source: Ann Schlag, University of London, 2011

Imperial College London

Trust, Traceability and Transparency

- Globally, consumers less trusting of government, industry, “Big” science, some foreign sources of food
- Pervasive media coverage of food scandals
- Shoppers want to know much more about where their food comes from and few claim “to know a lot”
- Most shoppers believe food companies should know “exactly” where **every** ingredient comes from
- Speed of social media communication both a blessing and a curse but, irrespective, a game changer
- Traceability and transparency in the supply chain underpins building ***TRUST*** with all stakeholders

Source: Joanne Denney-Finch, IGD UK, October 8th, 2013, and Hughes

Platinum-Plated Social License to Operate as the Most Trusted Supplier of Fish and Seafood

- Social license is granted to you when operating in a way that is consistent with the ethics, values and expectations of your stakeholders
- These include all customers, employees, local community, farmers, regulators, media, etc.
- Science and extension support shows us what we **can** do, BUT society shows us what we **should** do
- Managing your domestic & international reputational risk is FUNDAMENTALLY important for your future success. In aquaculture, how are we doing so far?

Source: adapted from Charlie Arnot, The Center for Food Integrity, USA (2013)

Some Concluding Thoughts

- Future demand for fish & seafood strong in both emerging and developed country markets
- Contingent on continued strong economic growth, particularly in China. Two principal risks which can devastate profitability:
  - input price volatility in climate-uncertain world;
  - reputational damage to the industry, nation, and brand from food safety/integrity disasters
- What's your point of difference in a market which is increasingly becoming commoditized?
- "Green" credentials safeguard against a discount; but great taste/presentation/story earn market premiums

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