AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

The Irish Agriculture and Food Development Authority

Situation and Outlook Mid-Year Update

Agricultural Economics & Farm Surveys Department

Teagasc

Buswells Hotel

July 24th 2012

National Farm Survey 2011

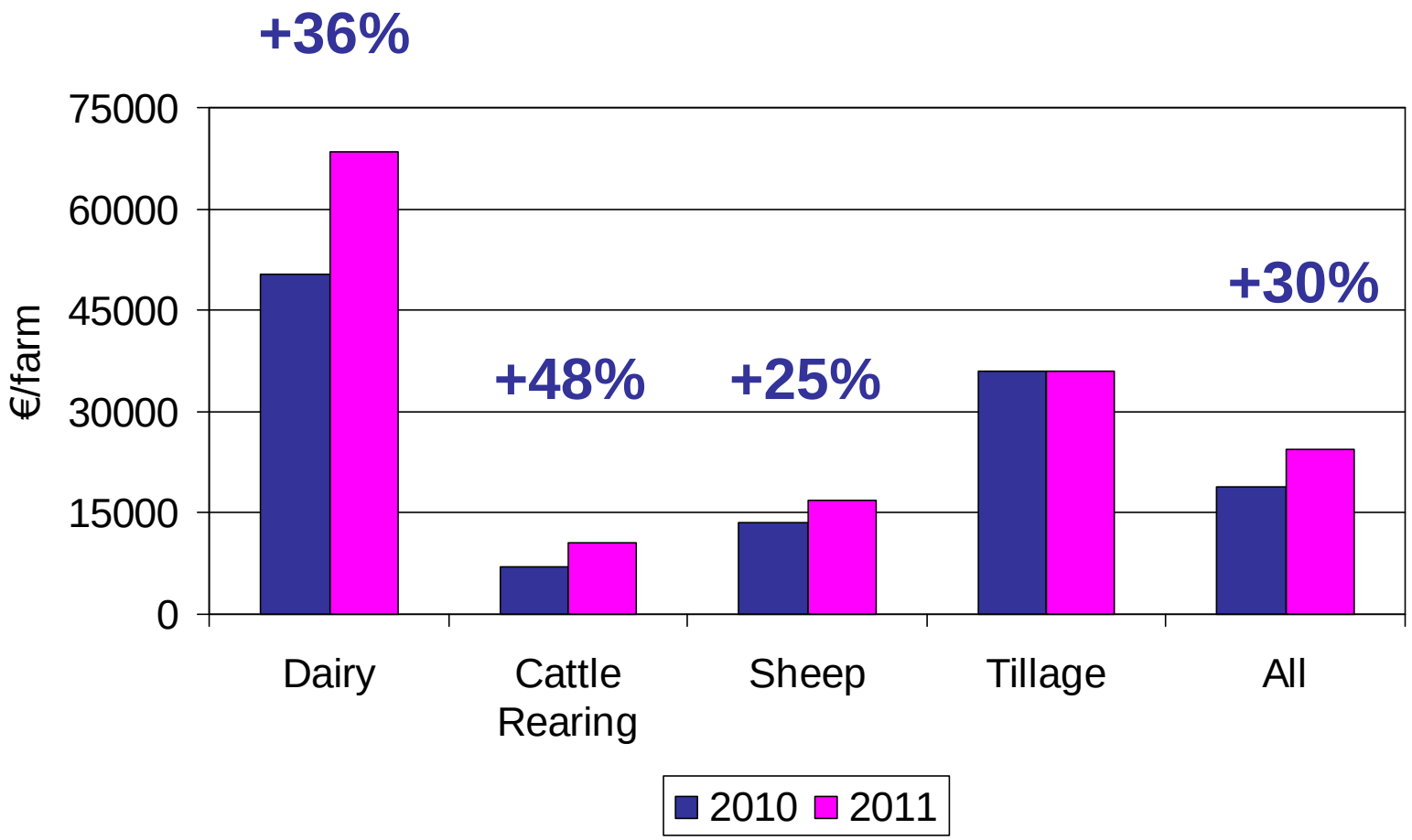
Thia Hennessy
Agricultural Economics & Farm Surveys Department
Teagasc

Buswells Hotel
July 24th 2012

Background

- Review and Outlook conference in Jan 2012
- Mid year review – output prices, input costs and forecast farm gross margin for 2012
- Farm Incomes reached unprecedented levels in 2011

Income 2010 & 2011

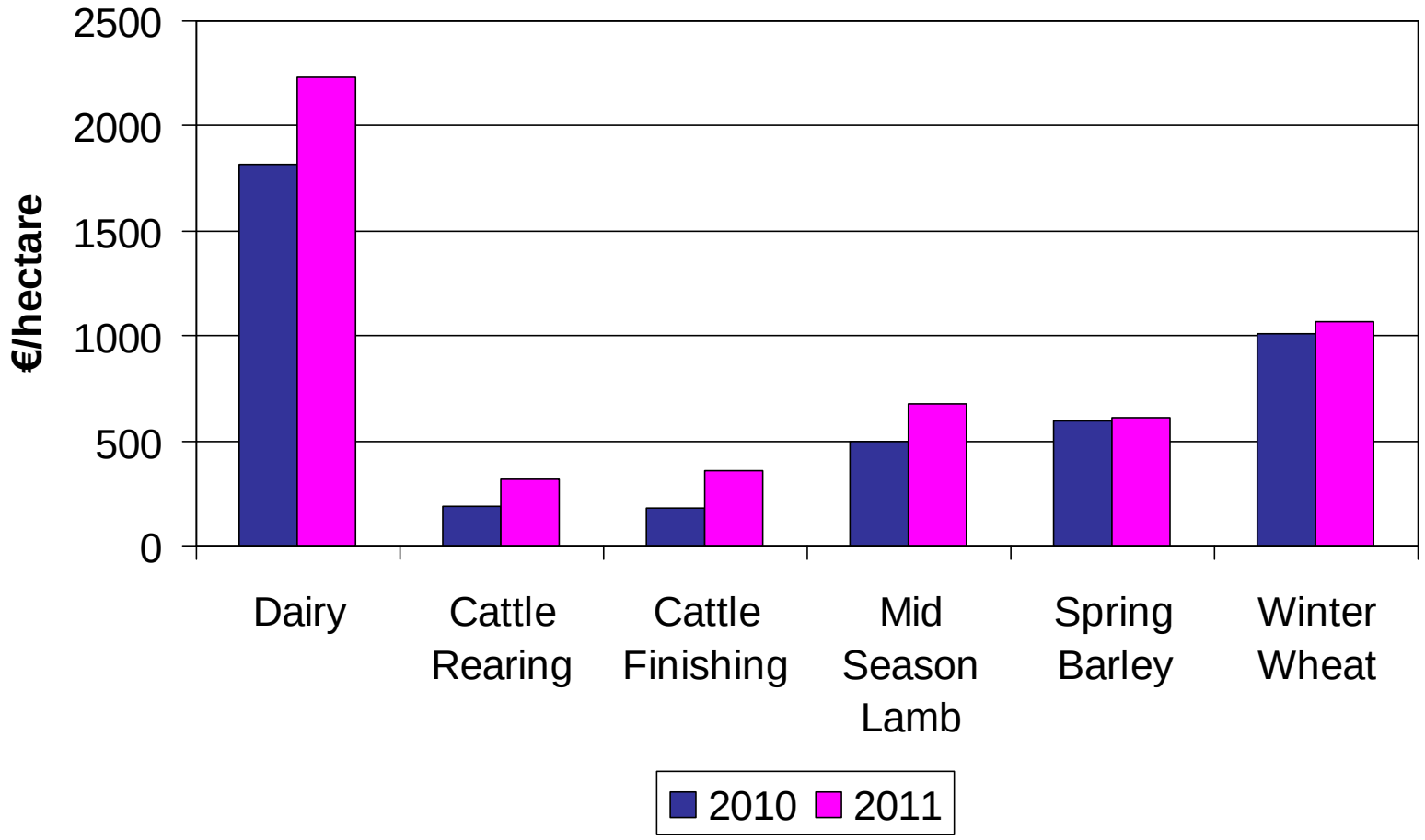


Source: Teagasc NFS (Various Years)

Background

- Farm Incomes reached unprecedented levels in 2011
- Income volatility is apparent
- Review and Outlook conference in Jan 2012
- Mid year review – output prices, input costs and forecast farm gross margin for 2012
- Review of the performance in 2011 – focus on productivity

Gross Margin per Hectare



Source: Teagasc NFS (Various Years)

Dairy Farm Performance

	Top	*Middle*	*Bottom*
Gross Margin per hectare (€)	**3,208**	**2,189**	**1,348**
Milk Sold per hectare (litres)	12,747	9,564	6,749
Total Costs per hectare (€)	508	418	379

Dairy Farm Performance

	Top	Middle	Bottom
Gross Margin per hectare (€)	**3,208**	**2,189**	**1,348**
Milk Sold per hectare (litres)	12,747	9,564	6,749
Total Costs per hectare (€)	508	418	379
Concentrate fed /litre of milk produced (kg)	0.15	0.17	0.21
Use of grass (days in grazing season)	244	246	226
Milk solids per cow: ≥ 378kg	77	34	20
Concentrate feed per cow: ≤750kg per cow	48	46	41
Somatic Cell Count: ≤ 200,000 cells/ml	52	35	23

Single Suckling Farm Performance

	Top	*Middle*	*Bottom*
Gross Margin per hectare (€)	**552**	**293**	**103**
Gross Output (€/hectare)	1,013	644	451
Total Direct Costs (€/hectare)	461	351	349

Single Suckling Farm Performance

	Top	*Middle*	*Bottom*
Gross Margin per hectare (€)	**552**	**293**	**103**
Gross Output (€/hectare)	1,013	644	451
Total Direct Costs (€/hectare)	461	351	349
Stocking rate (Lus/hectare)	1.57	1.23	1.07
Percentage of Farms on very good soils (%)	64	36	31
Calving ≥ 52% of cows calved in Feb & March (%)	36	16	33
Fertility rate ≥ 0.87 calves per cow (%)	65	68	46
Concentrate usage ≤ 438kg per livestock unit (%)	78	85	76

Sheep Farm Performance

	Top	*Middle*	*Bottom*
Gross Margin per hectare (€)	**1,098**	**654**	**284**
Gross Output (€/hectare)	1,477	1,020	642
Total Direct Costs (€/hectare)	379	366	358

Sheep Farm Performance

	Top	*Middle*	*Bottom*
Gross Margin per hectare (€)	**1,098**	**654**	**284**
Gross Output (€/hectare)	1,477	1,020	642
Total Direct Costs (€/hectare)	379	366	358
Stocking rate (Ewes per hectare)	8.96	7.15	5.06
Lamb Mortality: ≤ 8%	72	64	57
Weaning rate: ≥ 1.6 lambs per ewe (%)	24	6	8

Spring Barley Farm Performance

	Top	*Middle*	*Bottom*
Gross Margin per hectare (€)	**899**	**522**	**223**
Gross Output (€/hectare)	1428	1207	894
Total Direct Costs (€/hectare)			

Spring Barley Farm Performance

	Top	*Middle*	*Bottom*
Gross Margin per hectare (€)	**899**	**522**	**223**
Gross Output (€/hectare)	1428	1207	894
Total Direct Costs (€/hectare)	529	685	671
Barley yield >=7.3 t/ha			
Barely costs < =€950 per ha			

Outlook for 2012

- Fiona
  - Outlook for cereal markets and farm inputs
- Michael
  - Outlook for pig sector
- Trevor
  - Outlook for dairy, cattle and sheep prices and forecasts of gross margins
- Discussion
- Kevin
  - Medium Term Outlook

Grain Markets, Other Inputs, Cereal Margins

Fiona Thorne
Ag Econ and Farm Surveys Dept.,
Teagasc

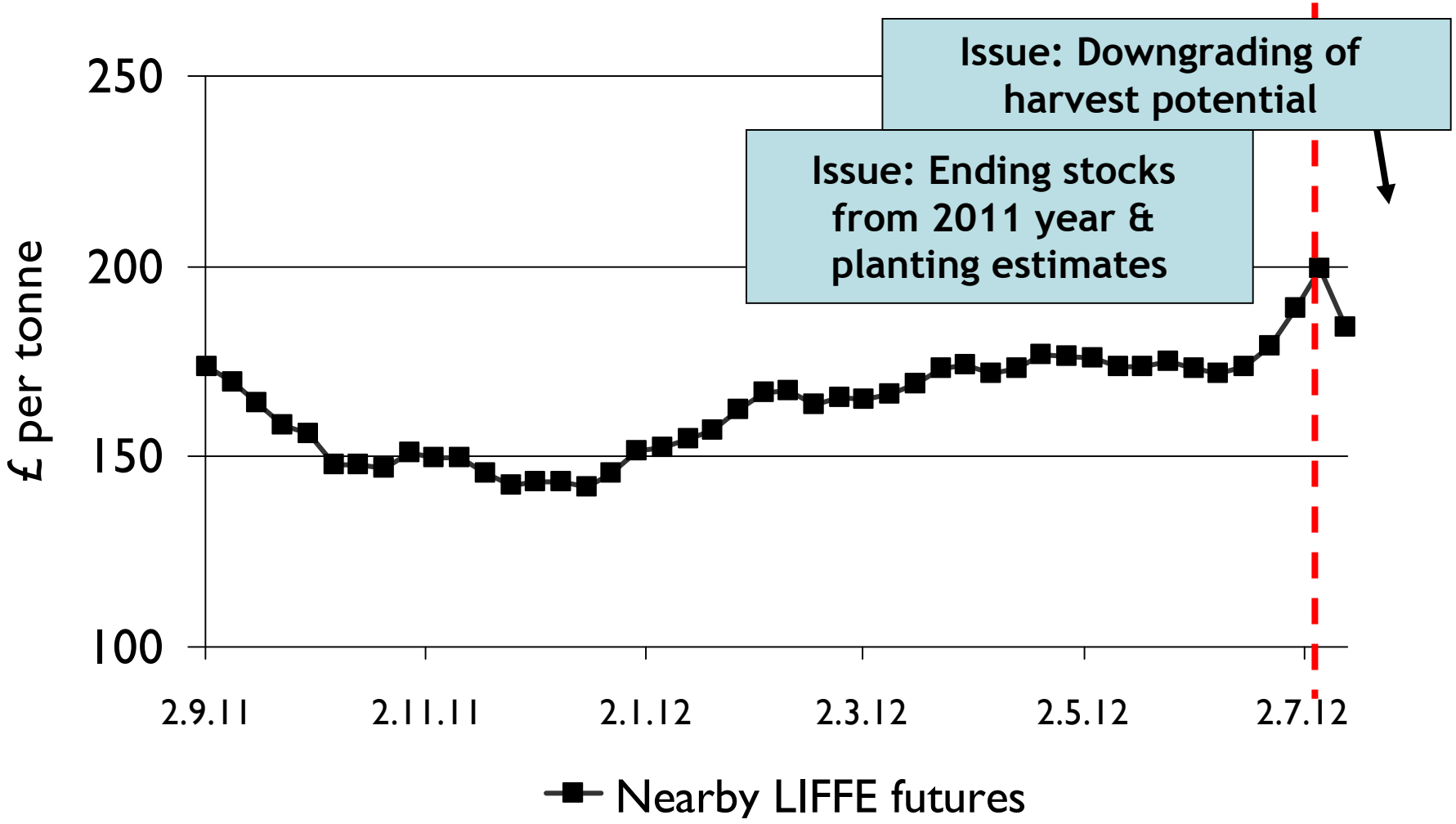
Mid Year Outlook 2012
24th July 2012

Outline of Presentation

- Cereal Markets Overview
  - Global and National Market Overview & Outlook
  - Implications for cereal prices & feed prices
- Input Costs
  - Review & forecast for rest of 2012
- Gross margins for major Cereals
  - Crop specific cereal gross margins

Global and National Cereal Market Overview

Markets are a balancing act



Source: HGCA

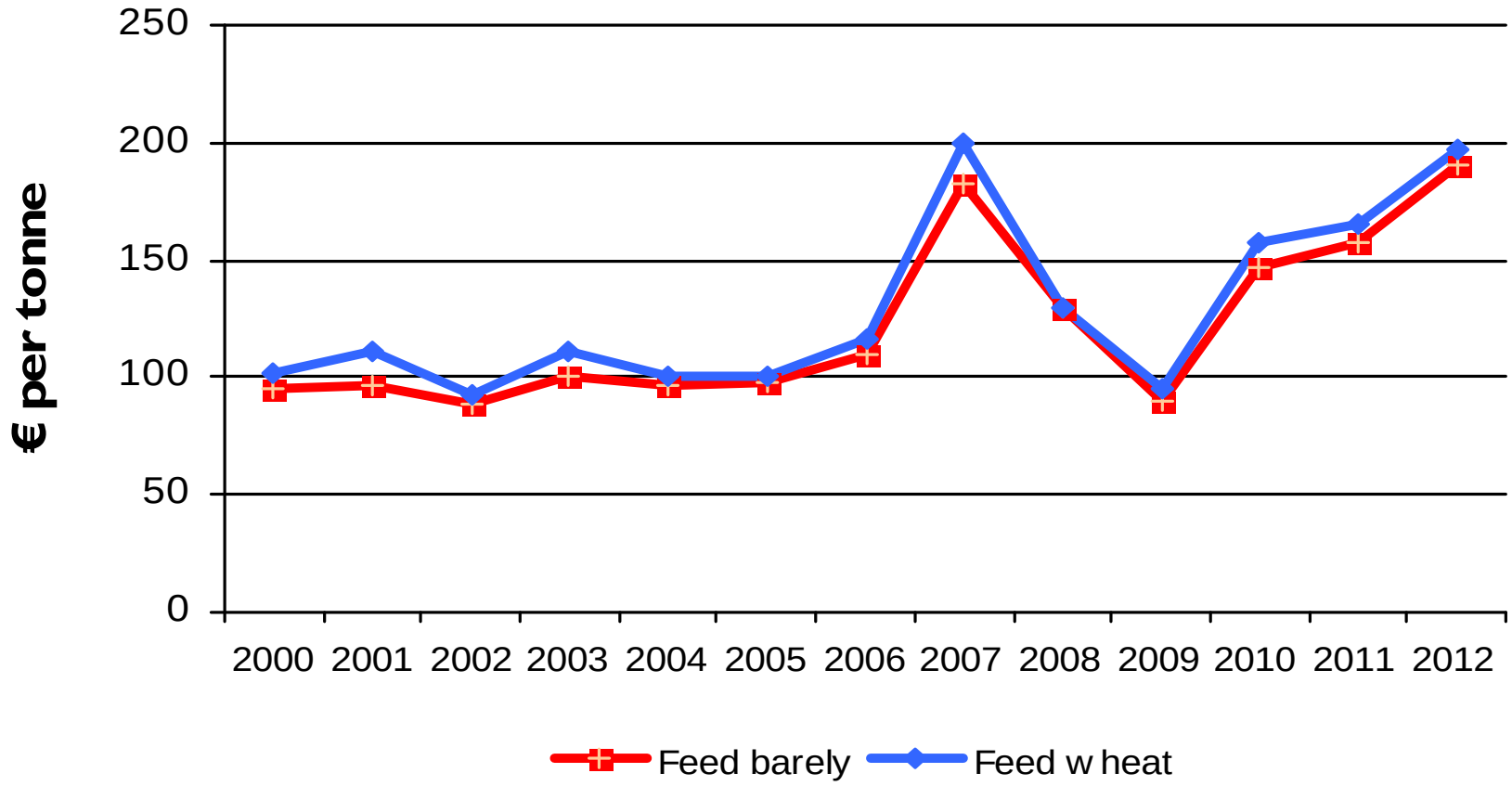
Why did cereal prices increase during 2012?

- Market Fundamentals
  - Supply side
    - Increased production area for feed grains market driven by '11 prices
    - Weather conditions during growing season
    - Current weather (US & Blacksea drought / Rain in Western EU)
  - Demand side
    - Increase in demand for ethanol production
    - Sluggish feed demand in EU
  - Overall more 'bullish' than 'bearish' effects
- Relatively low ending stocks in recent years leaves the market open to instability

Farm Gate Harvest Cereal prices

('00 –'12)

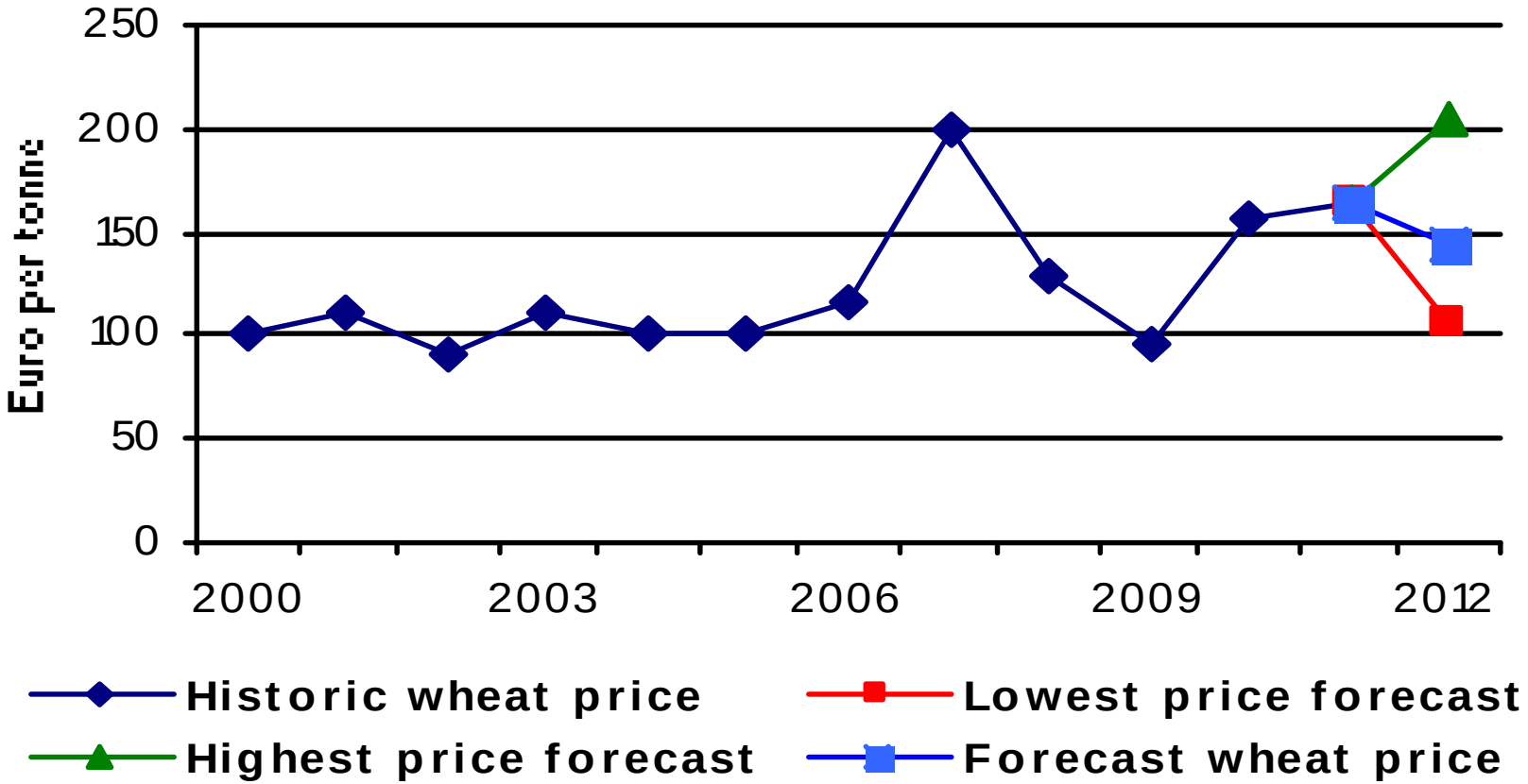
*Feed wheat & barley: up 15 - 20 percent



Source: Author's Own Estimates (*2012 – based on current forward contract prices)

Wheat Harvest Price: Historic & Forecast

- Highest probability that price in 2011 < 2010 price,
- But still a range of estimates [€113 - €214]
- 85% probability that price will be lower than 2011 harvest price



Source: Author's own estimates

Estimated Crop Yields in 2012

- Green yield decreases estimated for major crops
  - Spring barley (- 10%) ~ at best
    - Less optimistic -22%
  - Winter wheat (- 15%) ~ at best
    - Less optimistic – 27%

Costs of Production: Estimate of 2012

Feed in 2012

- Feed Prices in 2012: Price increase of 15% on 2011 level
  - Cereal prices at harvest 2011 up 15 % on 2010
    - But limited movement in feed prices for first 5 months of 2012
  - Upward trend in forward prices for second half of 2012
    - Limited scope for millers to absorb further price inflation

- Feed usage: Weather conditions to lead to 10% usage increase
  - 1st quarter: Dairy & beef feed: volumes down 5% & 15%
  - 2nd quarter: Difficult grazing conditions led to increase in usage
  - Full year: Usage up 10% on 2011 levels

Fertiliser in 2012

- Strong demand continues to support fertiliser prices
  - Energy and commodity prices remain high
  - Gov. policies focused around food security (China, India, Indonesia)
- Not easy to generalise about price rise due to seasonal nature of purchasing in different enterprises
  - Urea and CAN prices 5 % higher than 2011 level
  - P and K prices 5 – 8% higher than 2011 level
- Fertiliser application: Estimated no change in 2012
  - Moderate increase in fertiliser price
  - Plus commodity prices remain high for beef, sheep and cereals

Energy prices in 2012

- Fuel prices: 8 percent higher than 2011
  - Crude oil futures price on average for 2012 $108 pb
  - But depreciation of € / $
  - Results in increases price of fuel in Euro terms
- Electricity prices: 8 percent higher than 2011
  - Prices unchanged since the increase in October 2011
  - Reduction in prices may take place towards the end of 2012

Labour Costs & Other Costs in 2012

- Increases in labour and other costs relatively flat in 2012
  - Irish economy remains depressed
  - Labour & other costs: estimated to rise by 1%
- Exception: Crop protection costs
  - CSO index shows relatively flat index in 2012
  - But increase in applications & rates ~ + 10% expenditure

Costs Summary

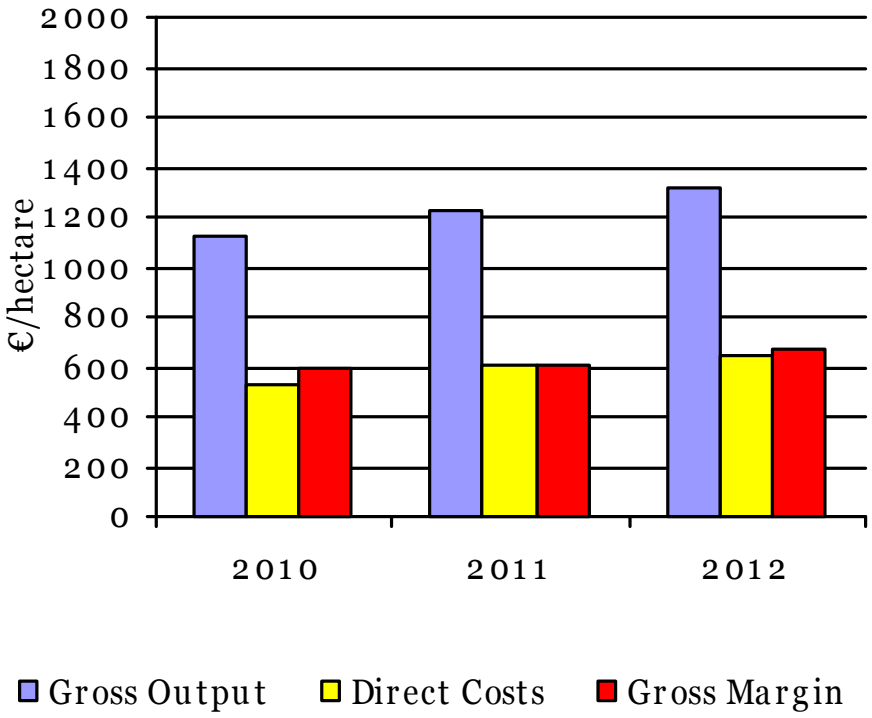
- Overall, production costs to increase in 2012
- Increase more than Jan. estimate
  - Mainly fuel and feed price driven
- Expenditure in 2012 vs 2011
  - Fertiliser expenditures to rise: + 5%
  - Fuel expenditures to rise: + 8%
  - Feed expenditures to rise: +25%
  - Slight inflation in other costs

Cereals Gross Margin Estimate

‘Optimistic’ Gross Margins

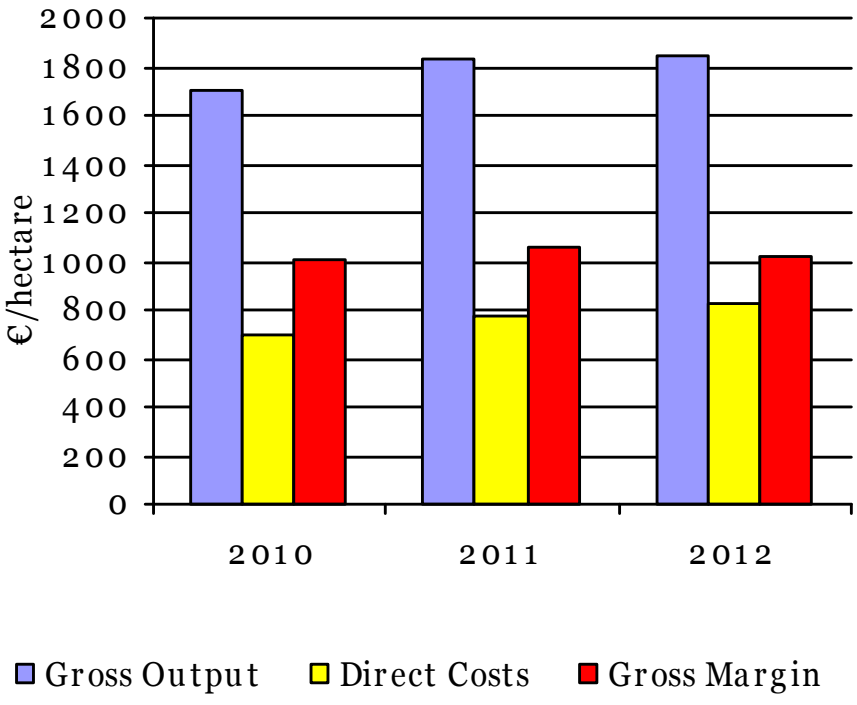
Spring Barley

Slight Increase in Gross Margin in 2012 (€667)



Winter Wheat

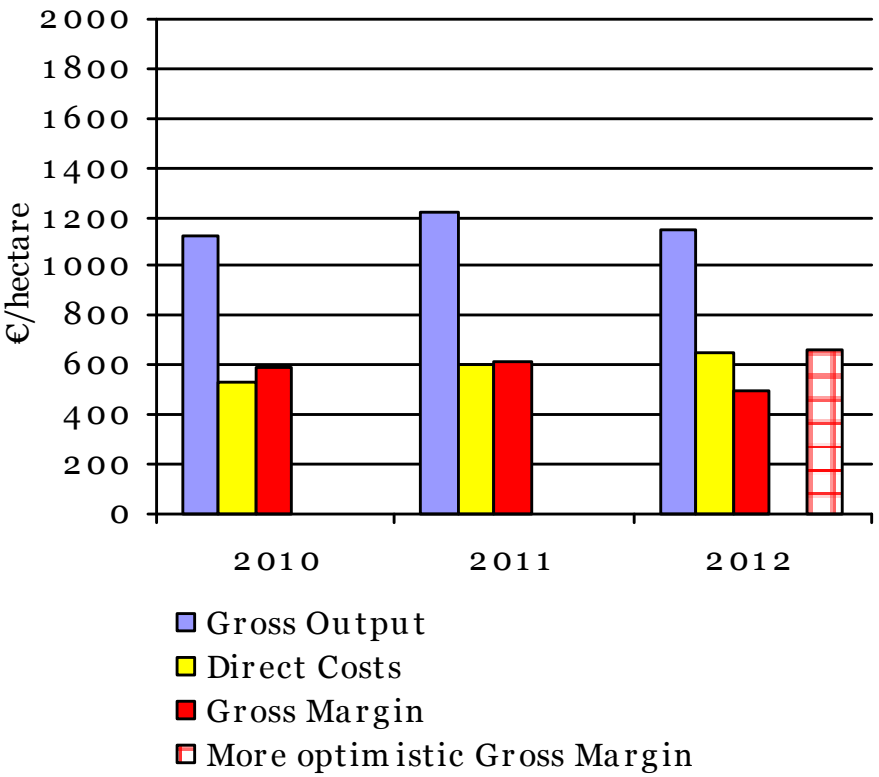
Slight Decrease in Gross Margin in 2012 (€1014)



‘Less Optimistic’ Gross Margins

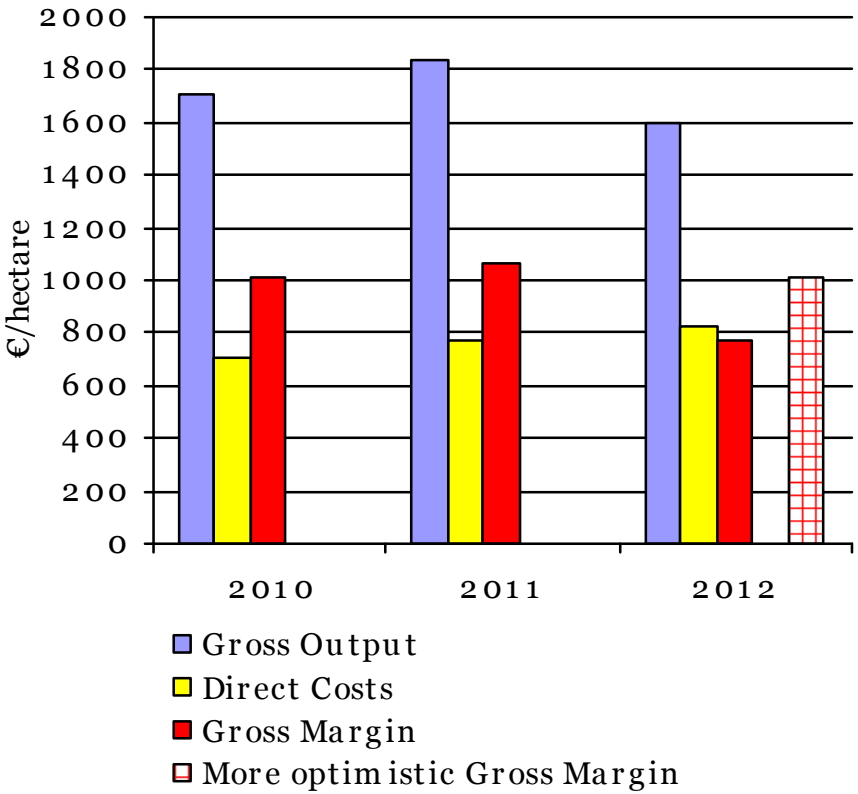
Spring Barley

Decrease in Gross Margin in 2012 (€500)



Winter Wheat

Decrease in Gross Margin in 2012 (€770)



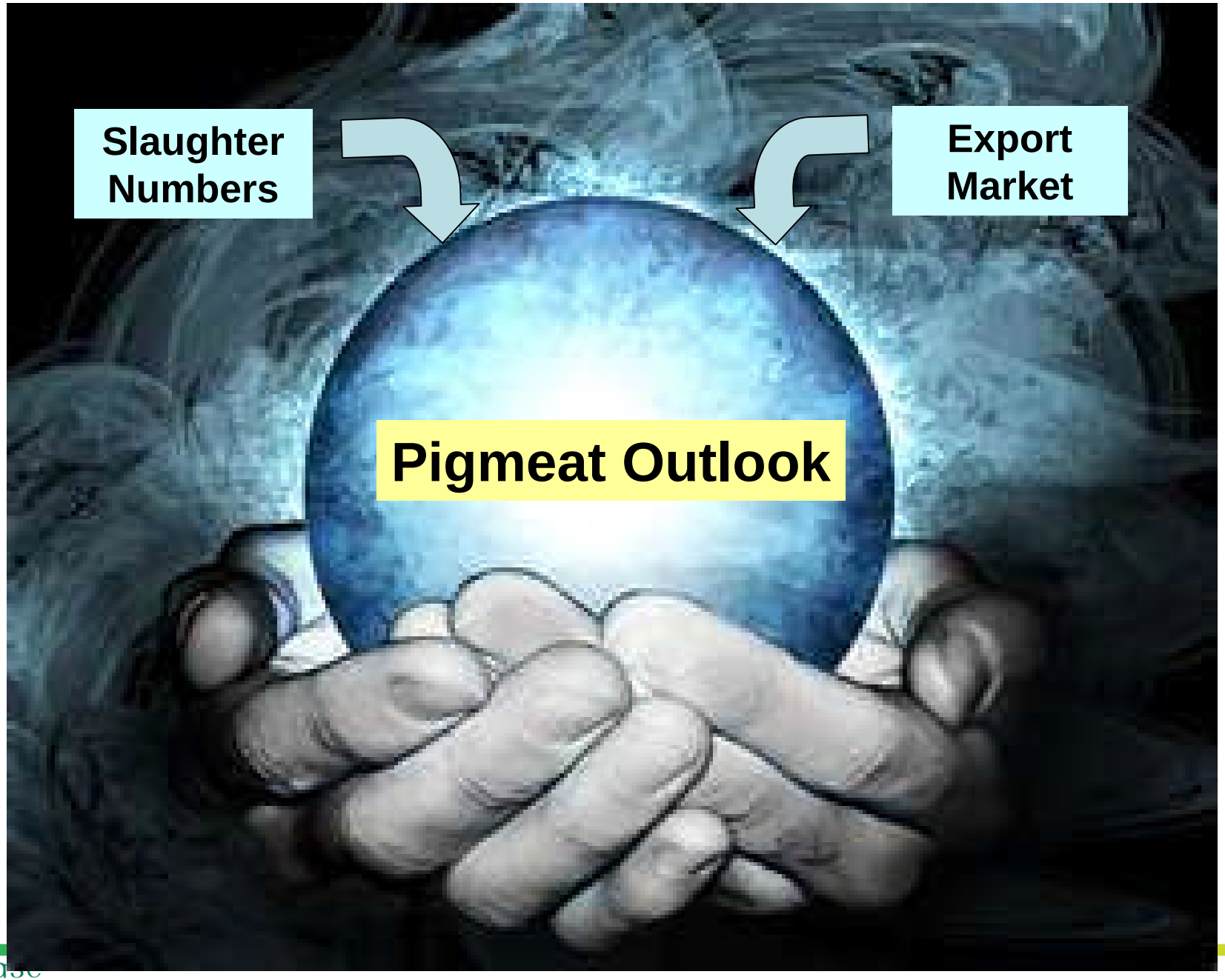
Take Home Messages

- Cereal prices + 15-20% on 2011 harvest levels
- Increase in all direct cost items
  - Big movers on Jan. estimates ~ feed and fuel
- Cereal margins
  - Despite large price movement
  - Yield level uncertainty
    - At best only slight movement on gross margins
    - Less optimistic yield outrun leads to sig. decrease on 2011 margins
- Feed story ~ significant for livestock margins
  - Pigs and poultry in particular

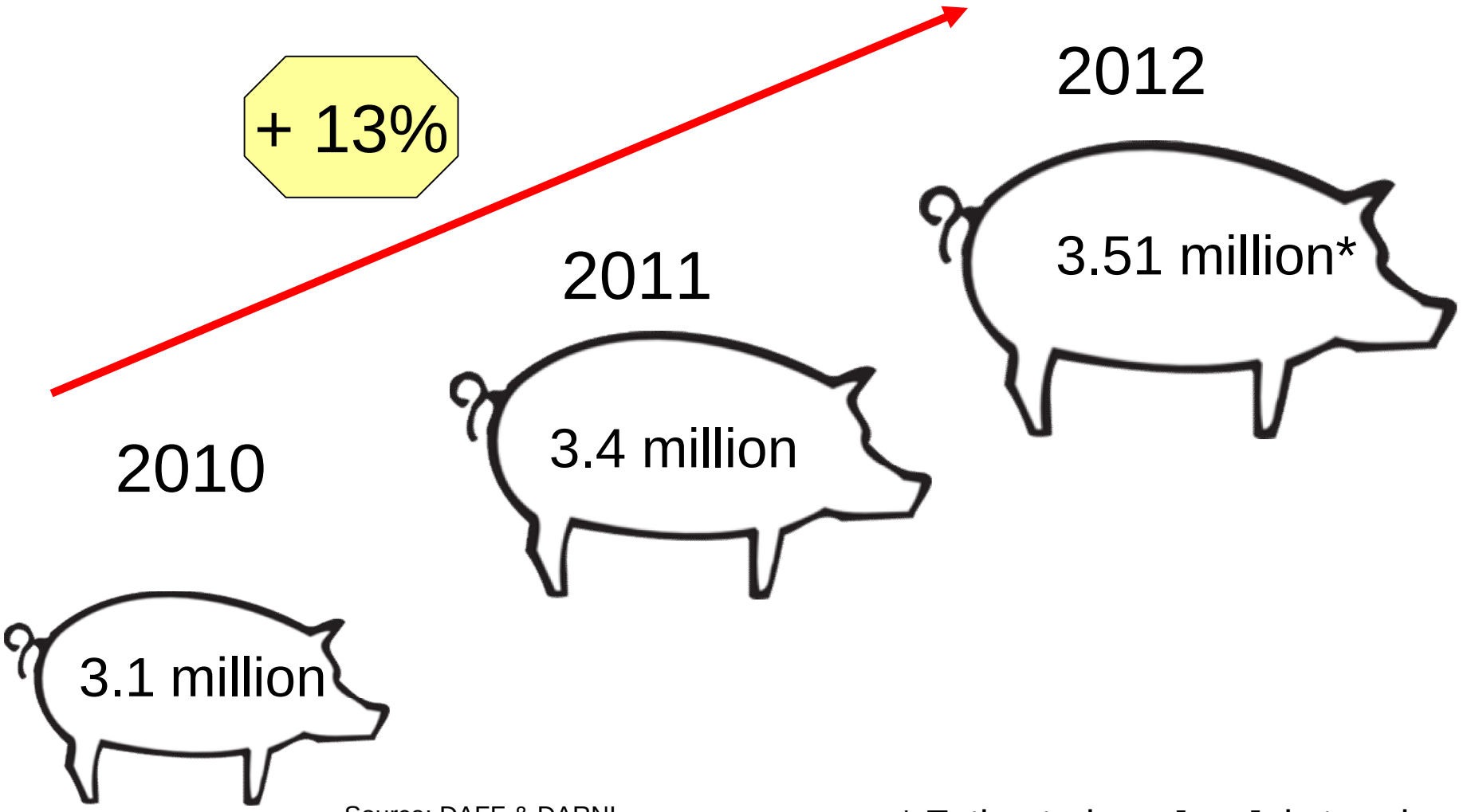
Outlook Conference July 2012
Pigmeat Market

Michael McKeon
Pig Development Department
Teagasc

Mid Year Outlook 2012
24th July 2012


Slaughter Numbers
Export Market
Pigmeat Outlook

Irish Pig Slaughtering (head)



Source: DAFF & DARNI

* Estimated on Jan-July trend

European Slaughter Numbers **(Jan -June)**

	2011 (million pigs)	**2012** (million pigs)	%
France	9.98	9.85	-1.29
Denmark	9.19	8.54	-7
Netherlands	7.21	7.17	-1
Germany	25.68	25.02	-3
Ave G,D, N	42.08	40.73	-3

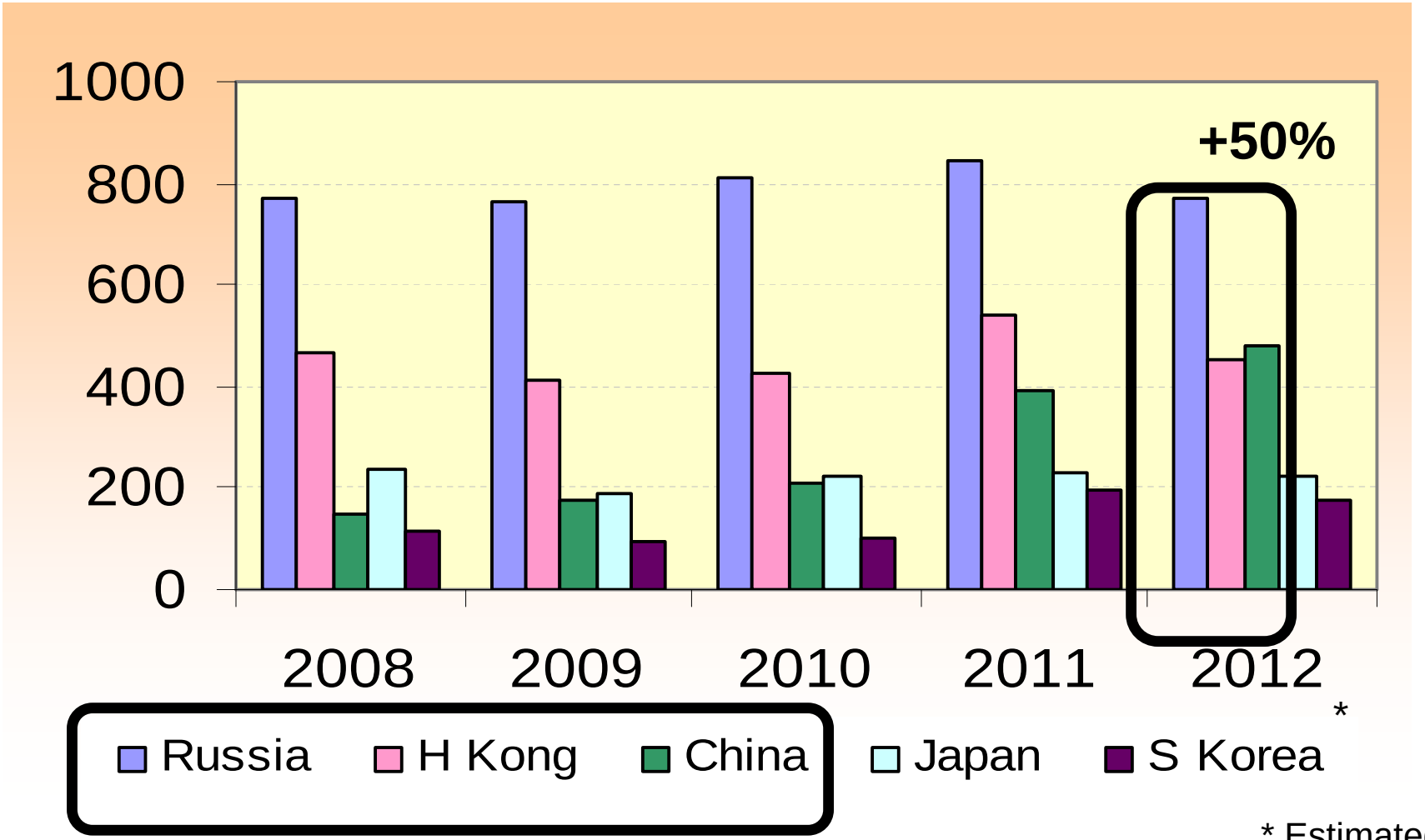
Source: MDP 2012

Global Pigmeat Exports **(Jan-Apr)**

	2011 (000 T)	**2012** (000 T)	%
EU 27	974	1,038	+7
USA	735	782	+6
Canada	374	387	+4
Brazil	214	225	+5
Total	**2297**	**2432**	**+6**

Source: DG Agri; US Meat Export Fed.

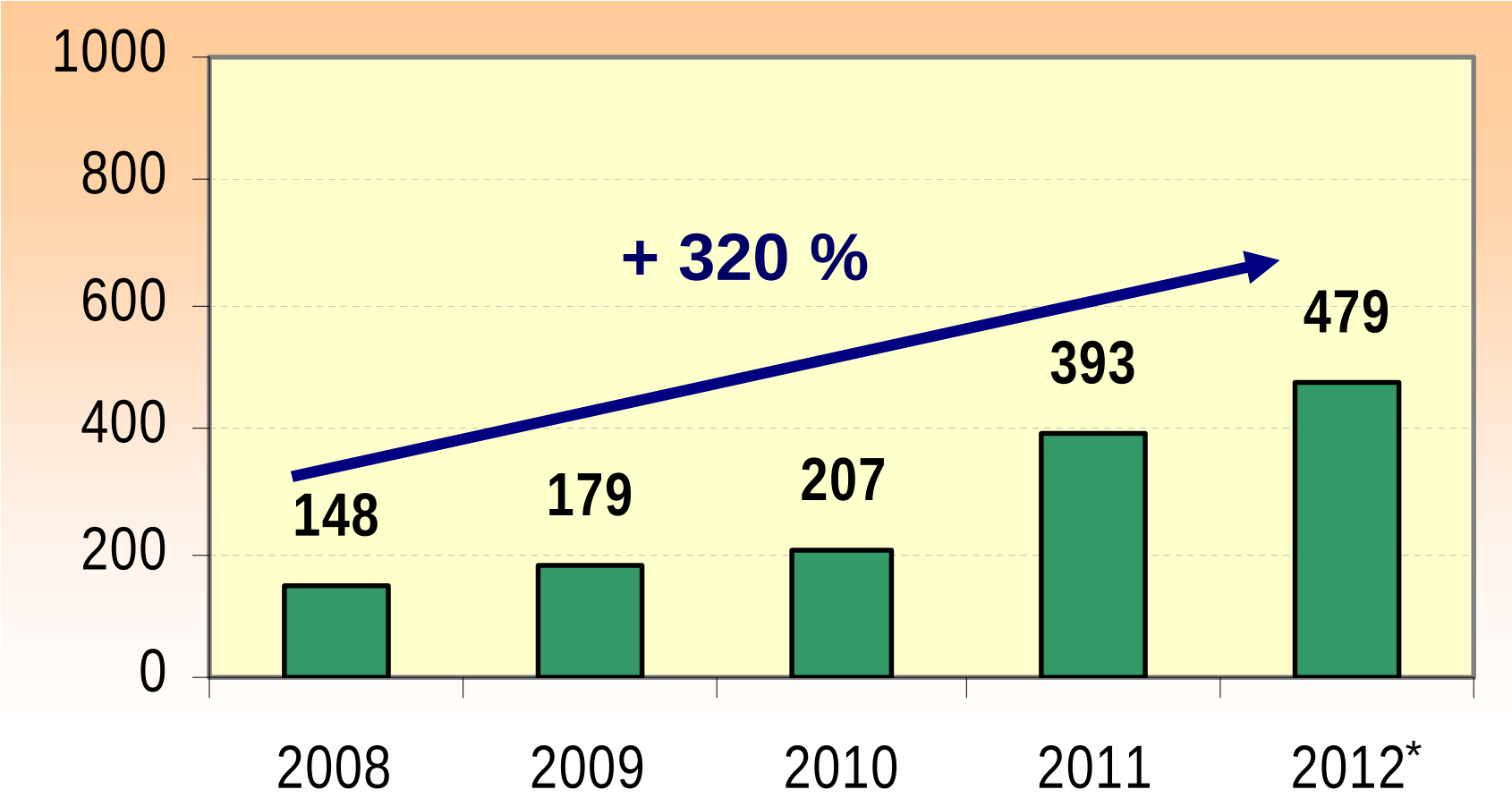
EU 27 Exports (000 tons)



Source: DG Agri

* Estimated

Exports to China (000 T)

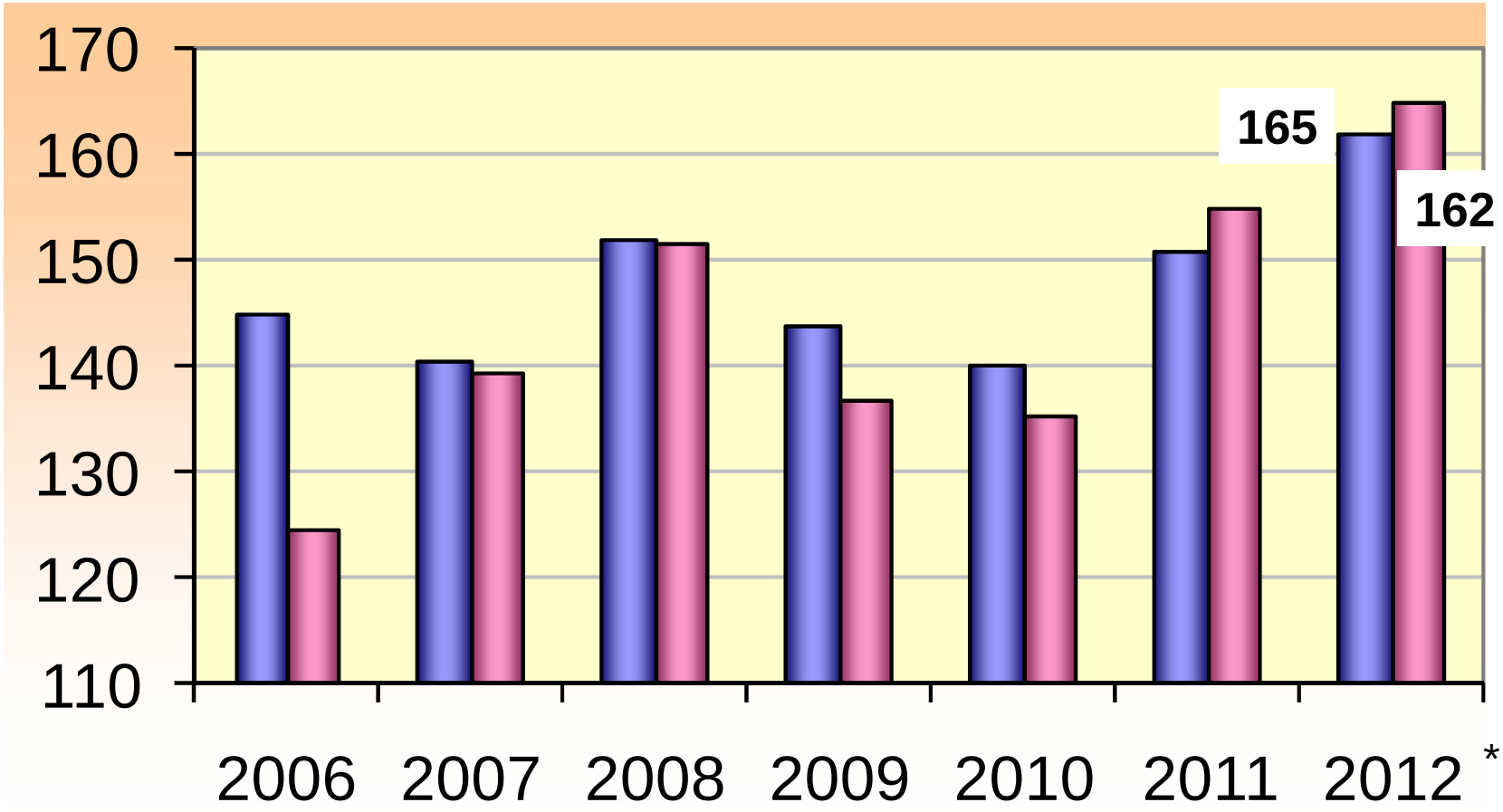


Source: DG Agri

* Estimated

Financial Margin

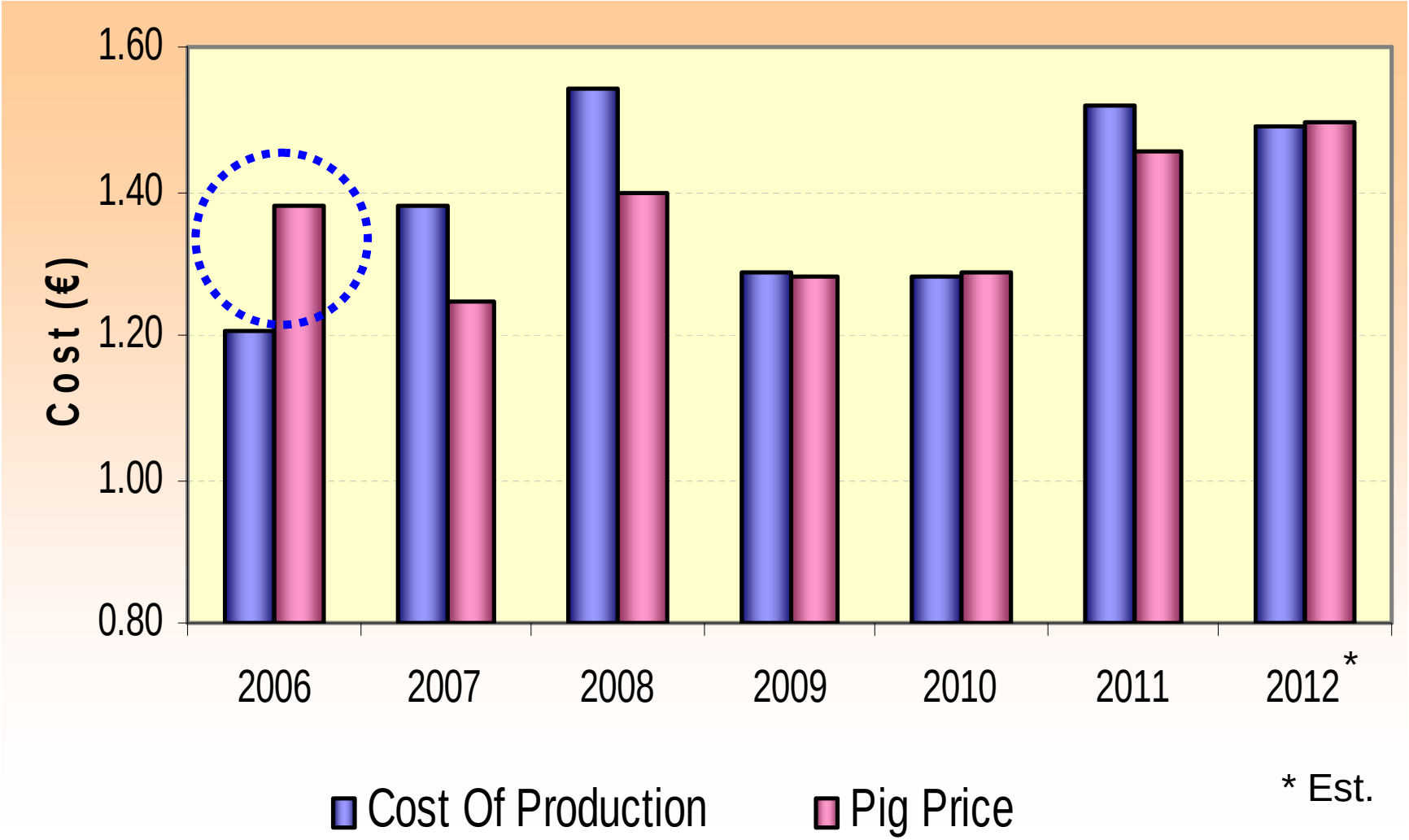
Irish Margin (cent/kg)



*June 12

Source: Teagasc Pig Dept.

French Margins (c per Kg)



Source: MDP 2012

Financial Margin Outlook

- Feed constitutes 73% of the total cost of production.
- Feed price will have the largest input effect on margin and is unlikely to decrease in short term
- Volume of slaughter pigs – Loose Sow Housing - Eggs
- Pig price is heavily dependent on the export market – especially Russia, Hong Kong & China.
- Overall the financial margin will continue to be very tight

Dairy, Beef and Sheep

Trevor Donnellan

Agricultural Economics & Farm Surveys Department

Teagasc

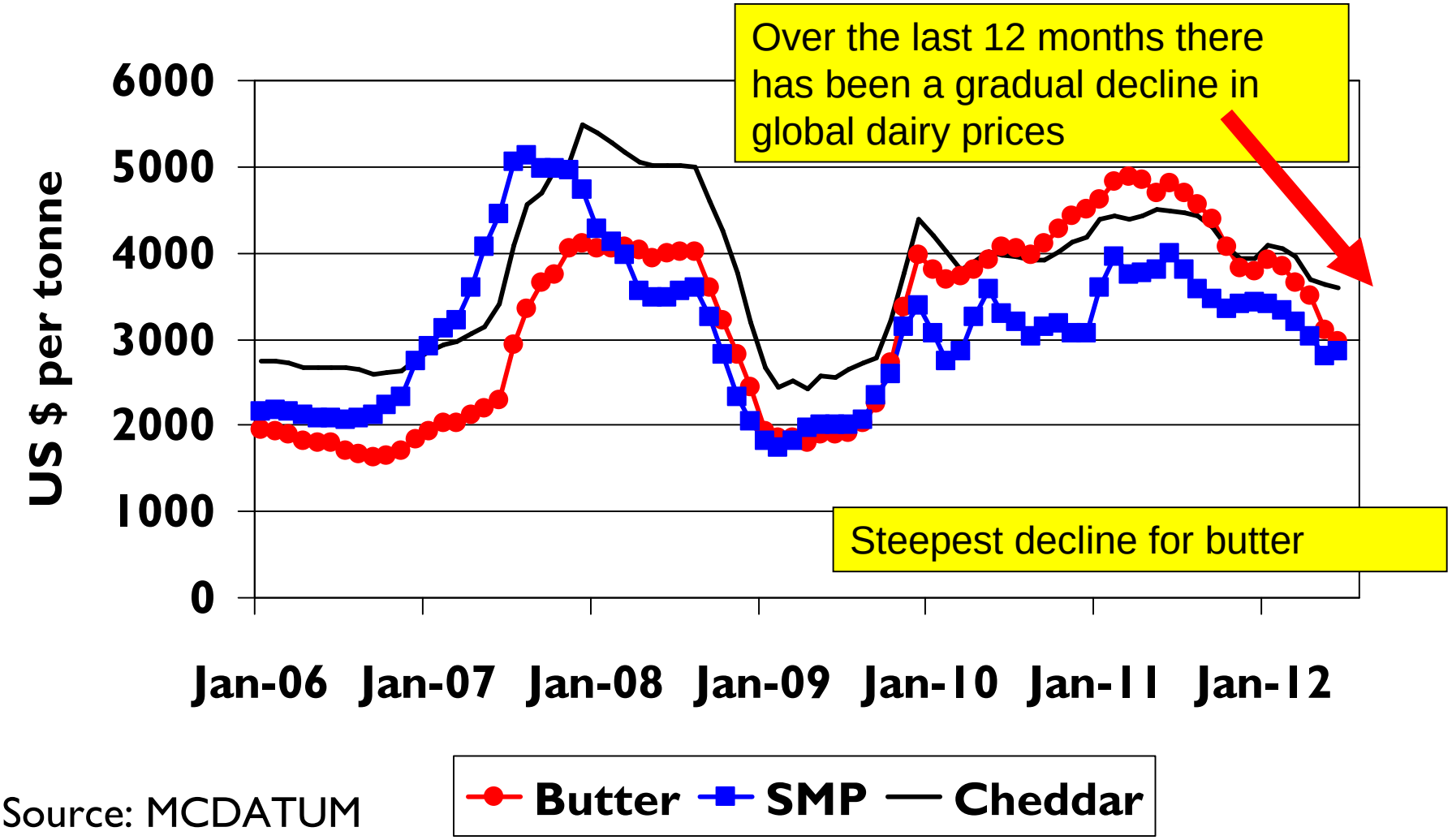
Mid Year Outlook 2012

24th July 2012

Global Dairy in 2012

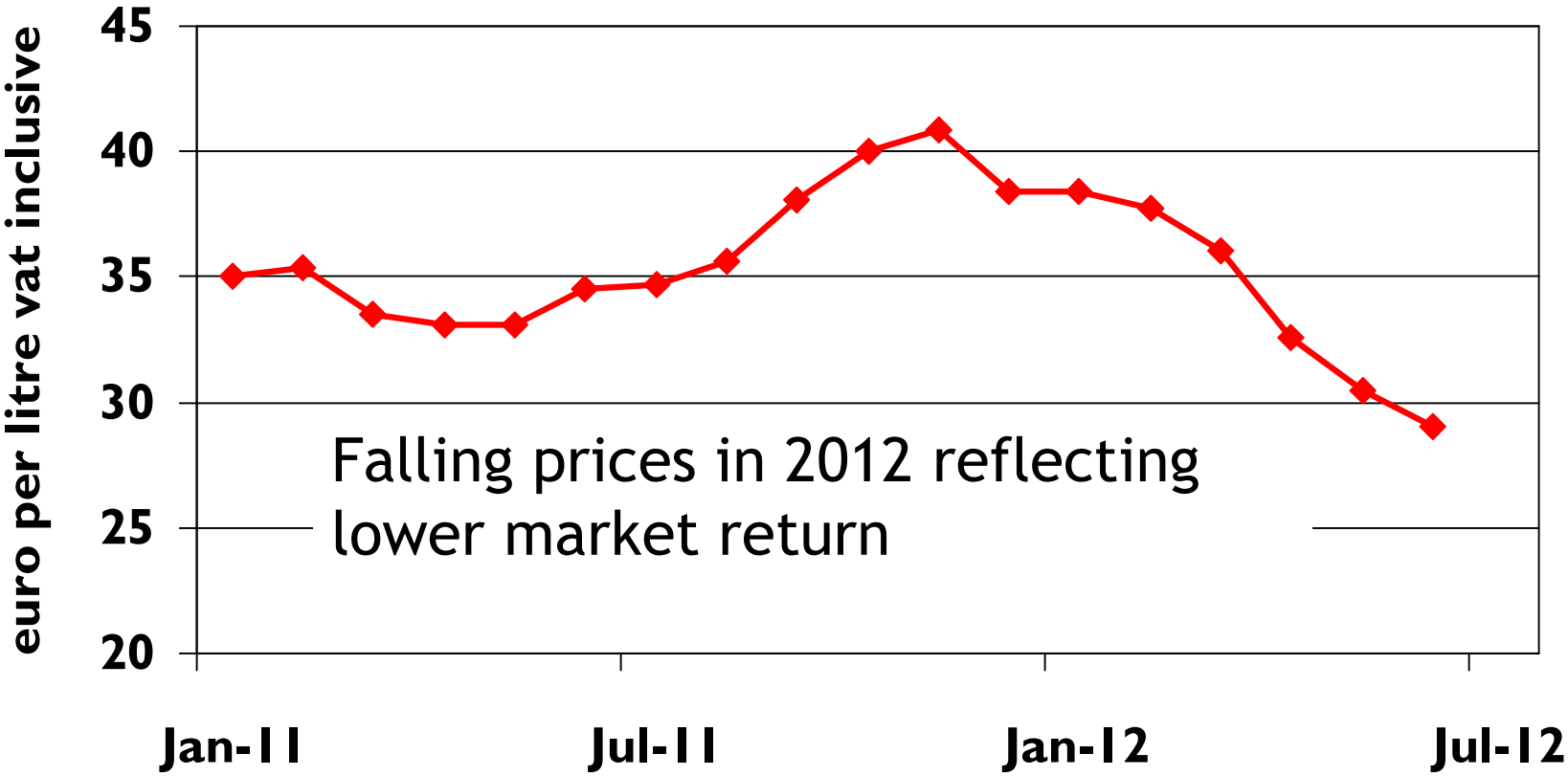
- Strong production in 2011/12
- Consumption growth weak in developed economies
  - Developing economy outlook more optimistic
- More milk to dispose of in 2012
- Lower prices

World Dairy Prices 2006 to 2012



Source: MCDATUM

Irish Farm Milk Price



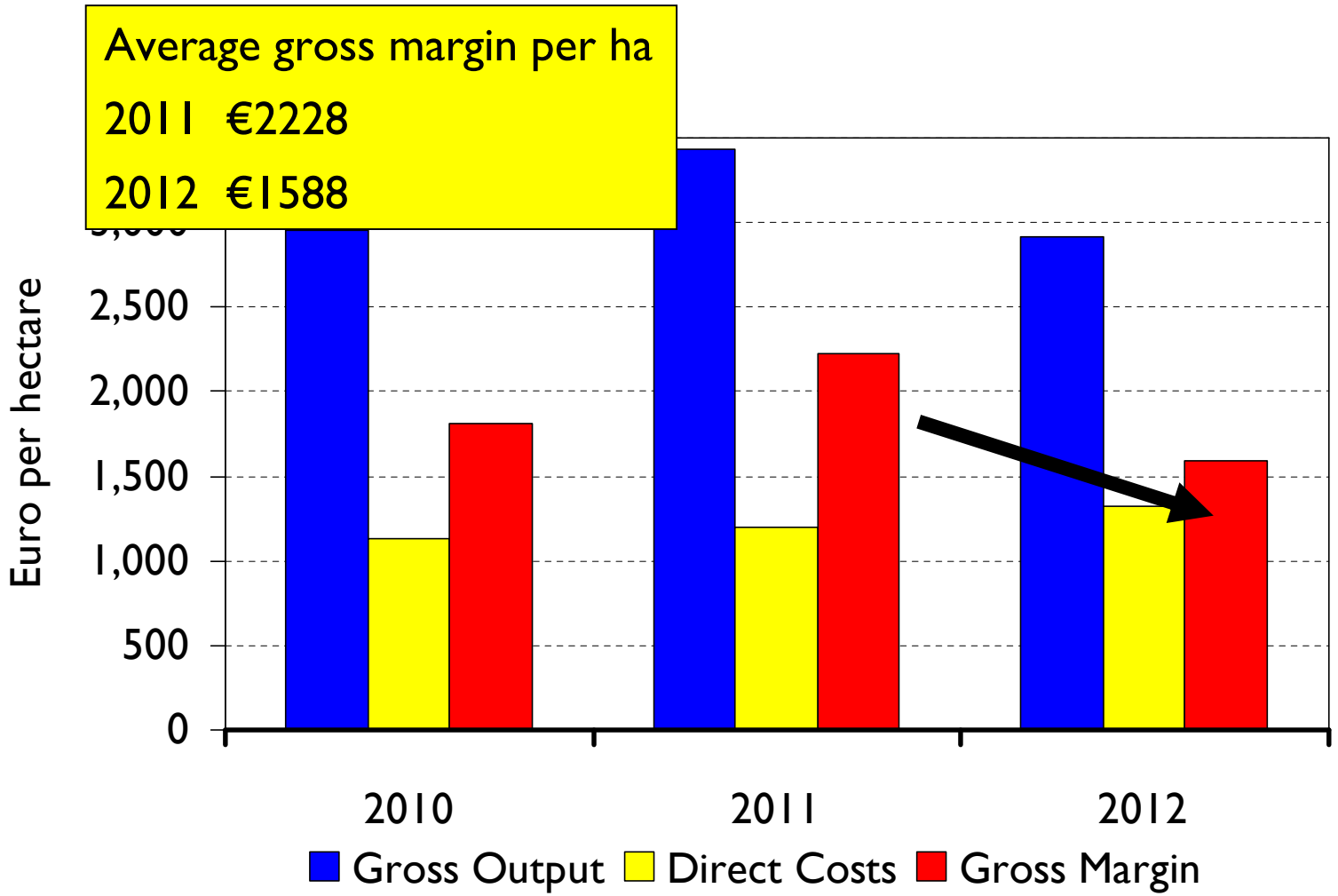
Source: CSO

Irish Milk Price and Production in 2012

- Irish milk prices to decline in 2012
  - weak EU market situation
- Forecast milk price decrease of 15% in 2012
  - Average milk price of approx 30 cpl
- Production ahead of quota but lower than 2011

Less likelihood of milk quota problem in 2012/13

Average Dairy Margins (per ha)



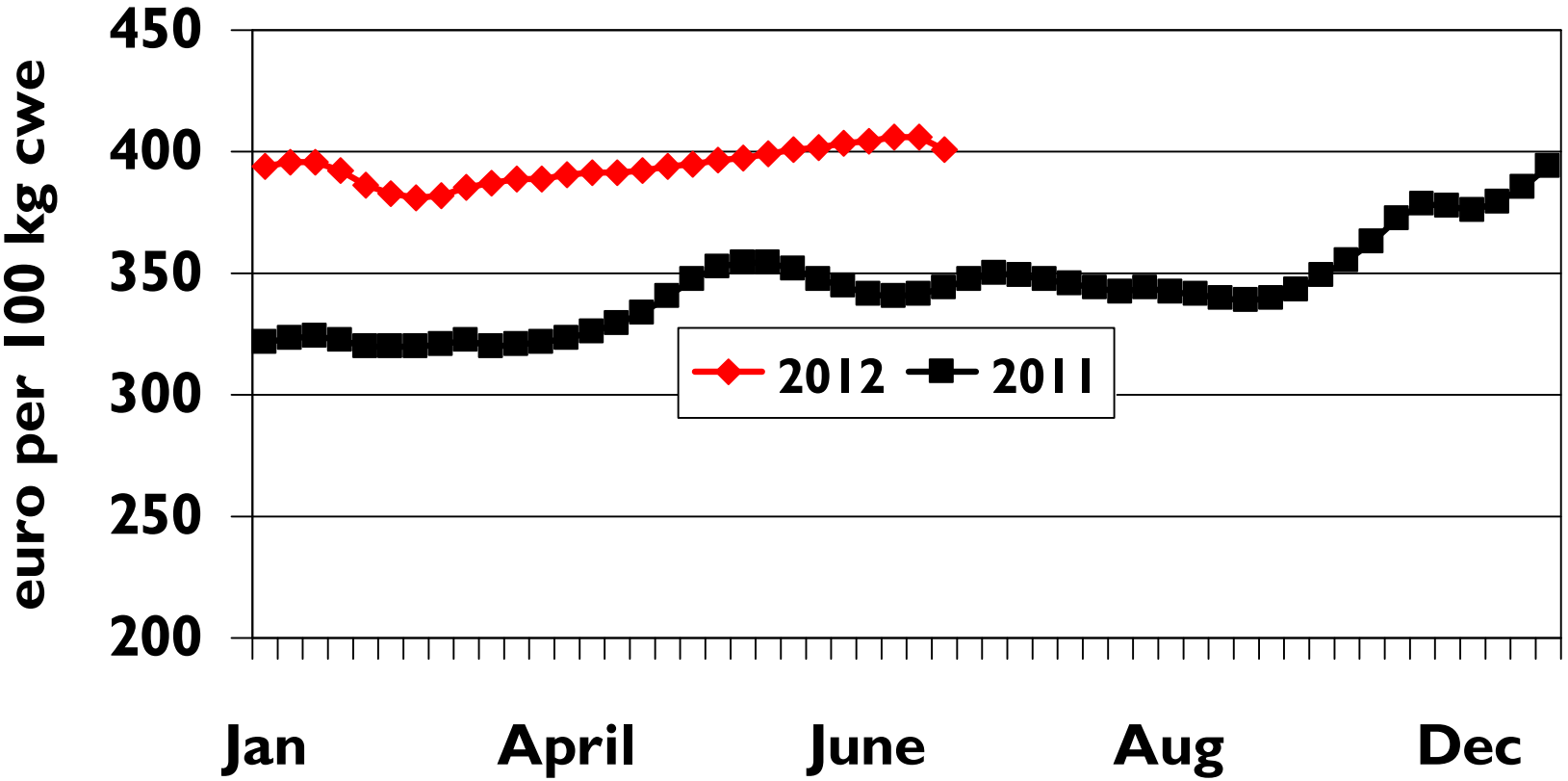
Source: Teagasc NFS (Various Years) & Author's estimate

Beef

Cattle Price Outlook

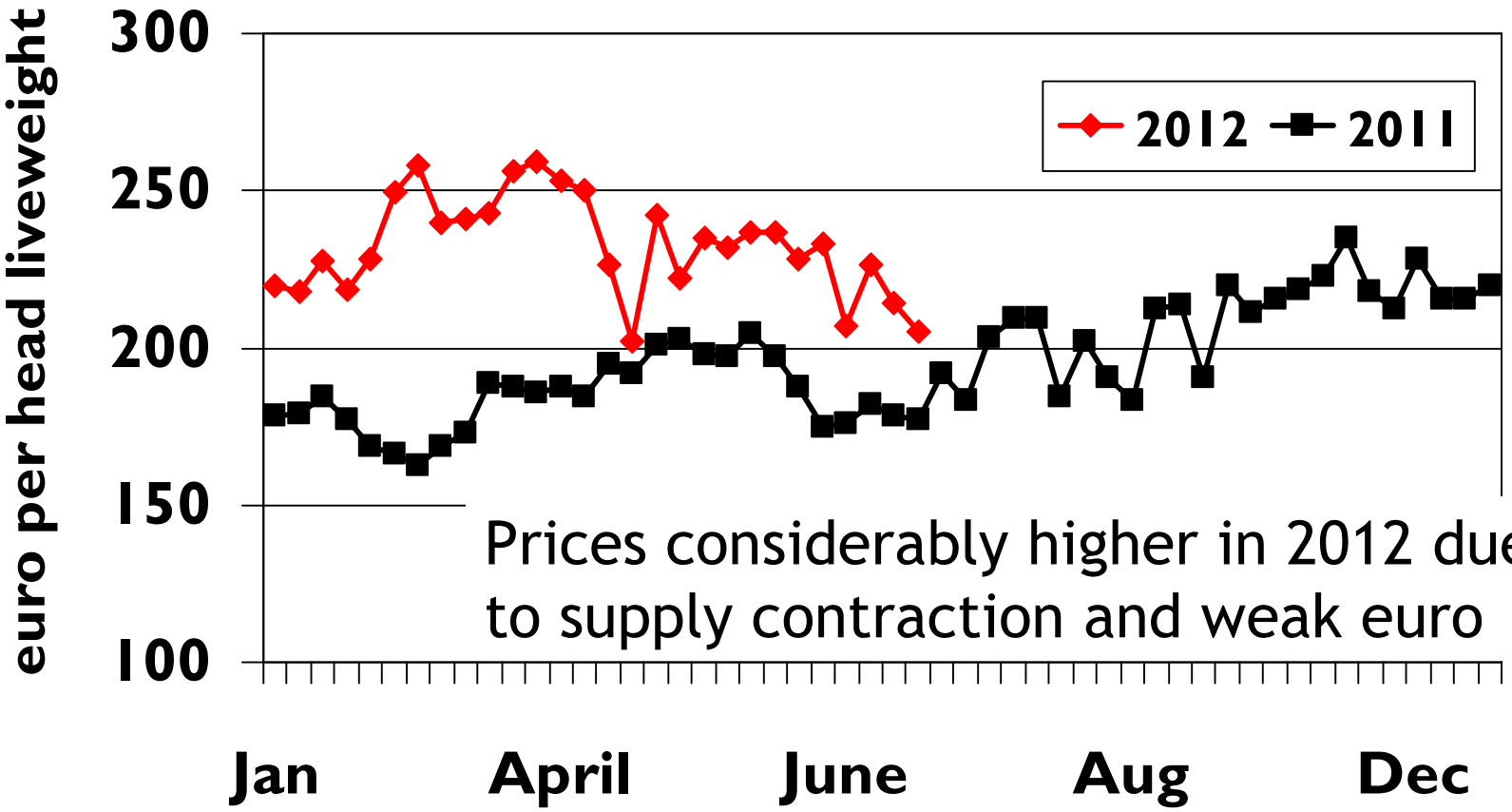
- Cattle prices up in 2012
  - outlook is for continued buoyant cattle prices.
  - weaker EU consumer demand for beef
  - contraction in supplies of cattle
  - Weakening euro
- Irish prime cattle throughput is down
  - 17% lower over the first half of 2012 compared with 2011
- Finished cattle price 18% higher (on 2011)
- Weanling/Store prices 15% higher (on 2011)

Weekly Irish Finished Steer Prices



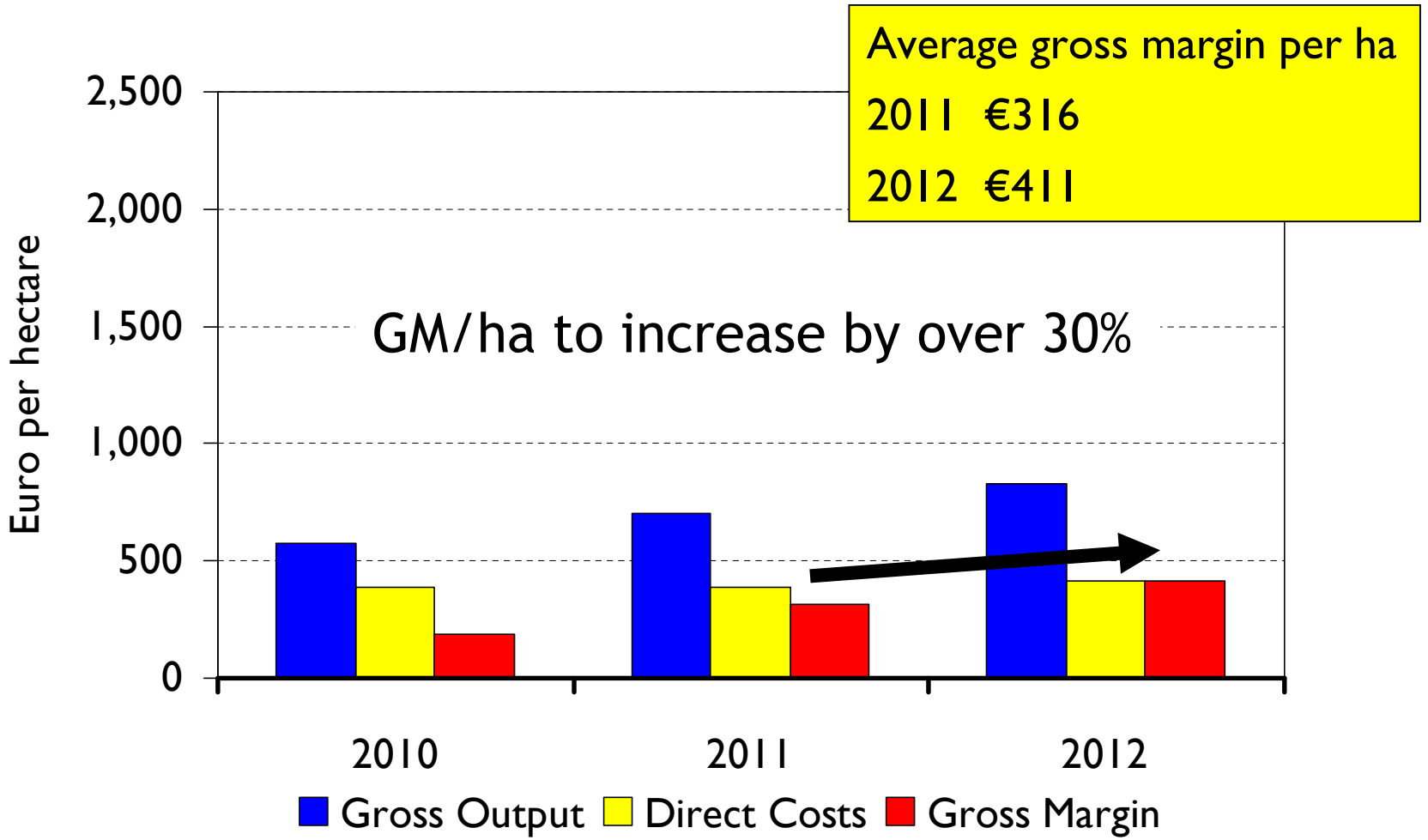
Source: DG Agri

Weekly Irish Weanling Prices



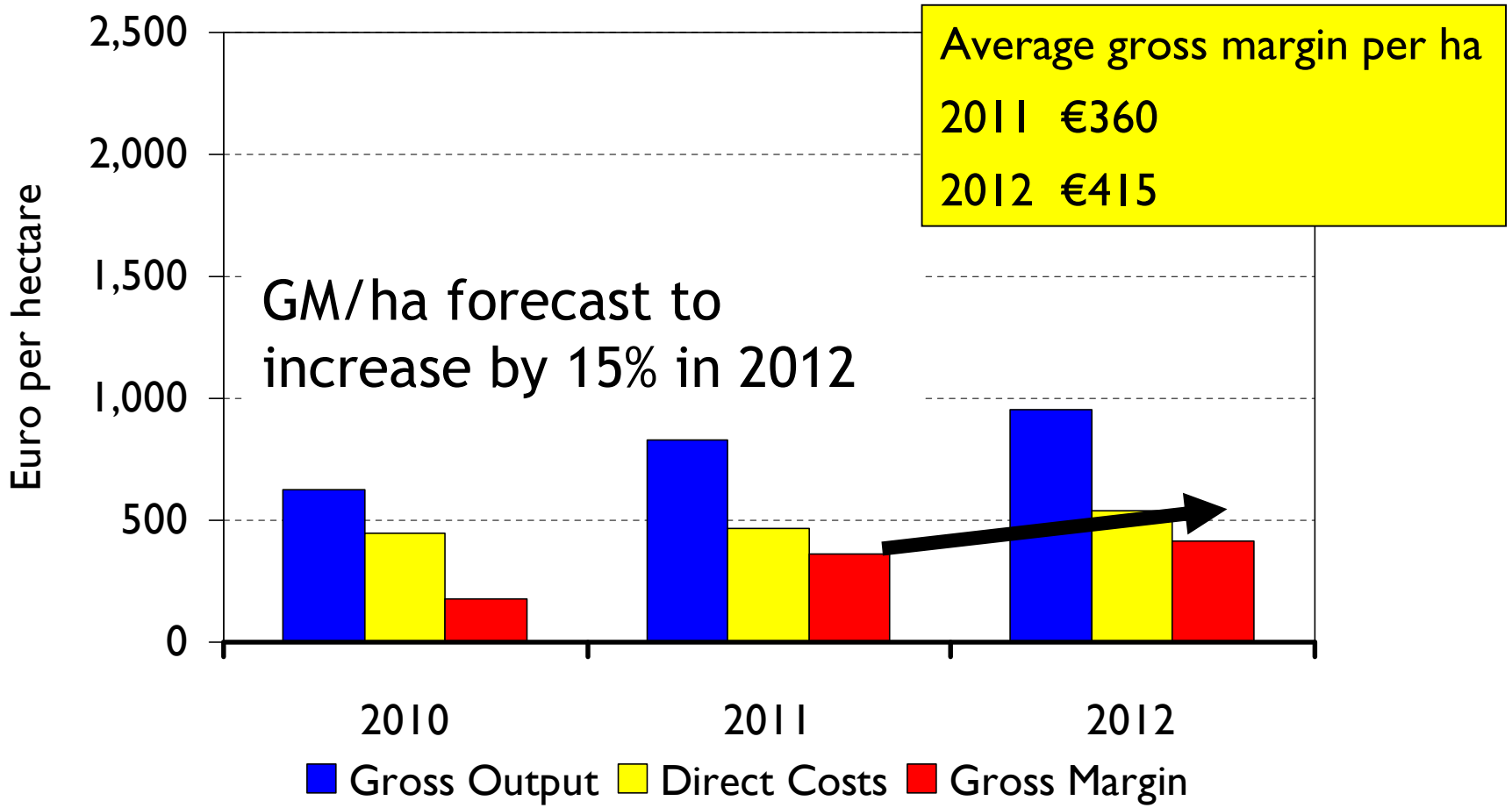
Source: DG Agri

Average Single Sucking Margins (per ha)



Source: NFS **(Various Years) & Author's estimate**

Average Finishing Margins (per ha)



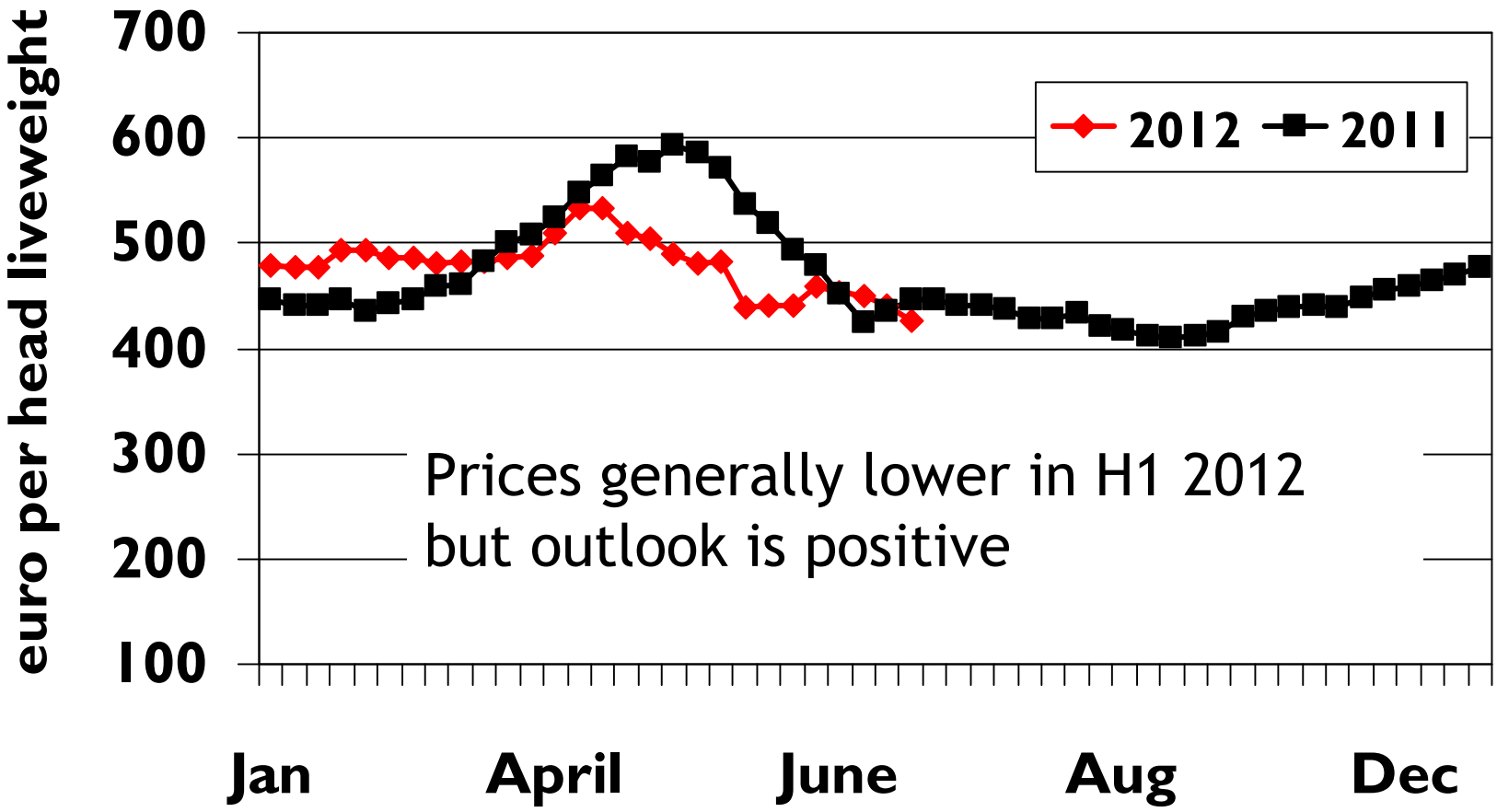
Source: NFS **(Various Years) & Author's estimate**

Sheep

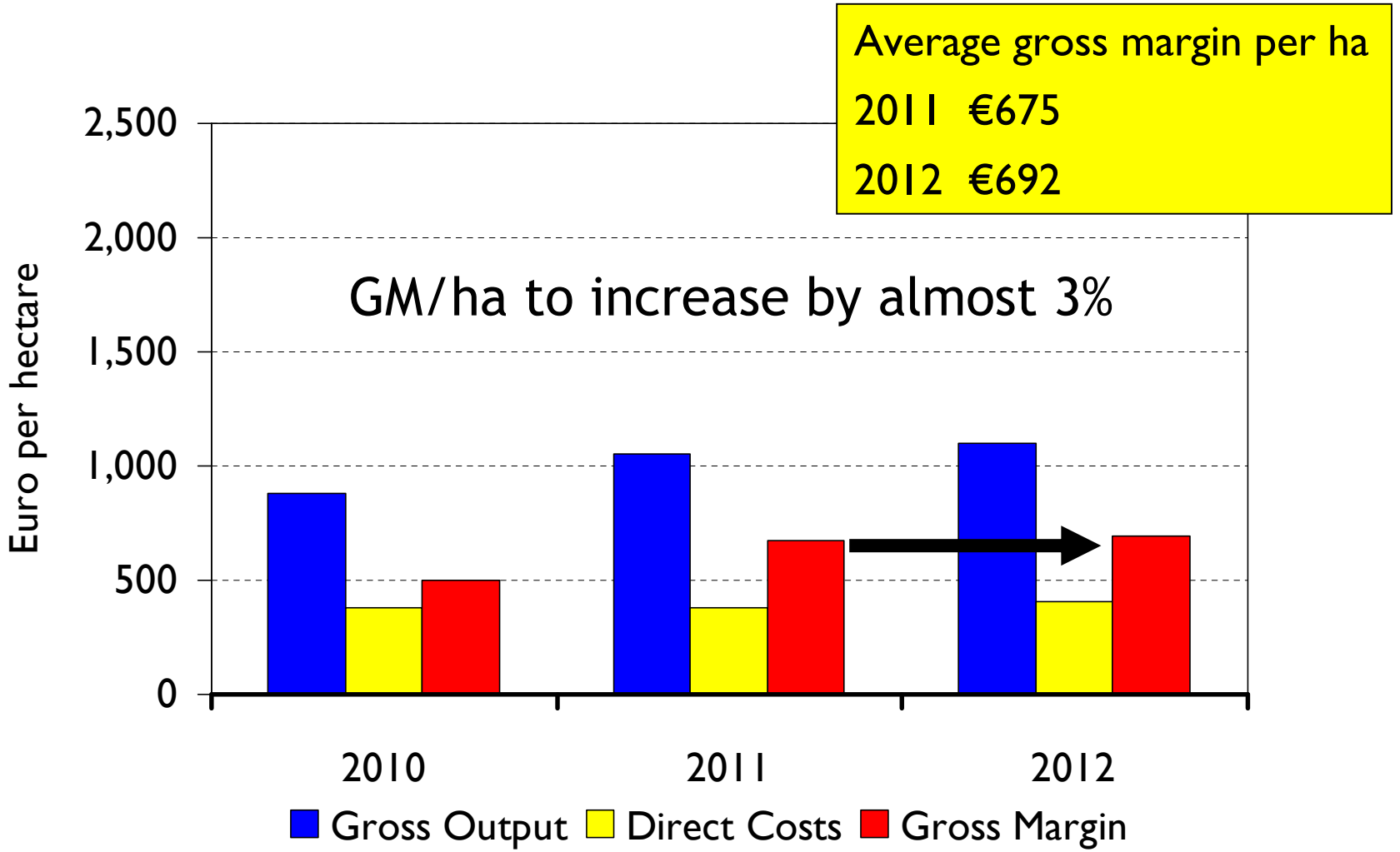
Sheep Prices

- Sheep prices in H1 2012 marginally lower than H1 2011
  - Due to growth in the Irish ewe flock (Irish lamb availability)
- Imports of lamb into EU 20% lower than in 2011
  - New Zealand seeking other markets (Mid. East & Asia)
- High lamb price and weak EU economy
  - Puts cap on lamb price in continental EU
- Positives for Irish market in H2 2012
  - weak euro making UK exports less competitive
  - Ramadan festival boost demand

Weekly Irish Lamb Prices

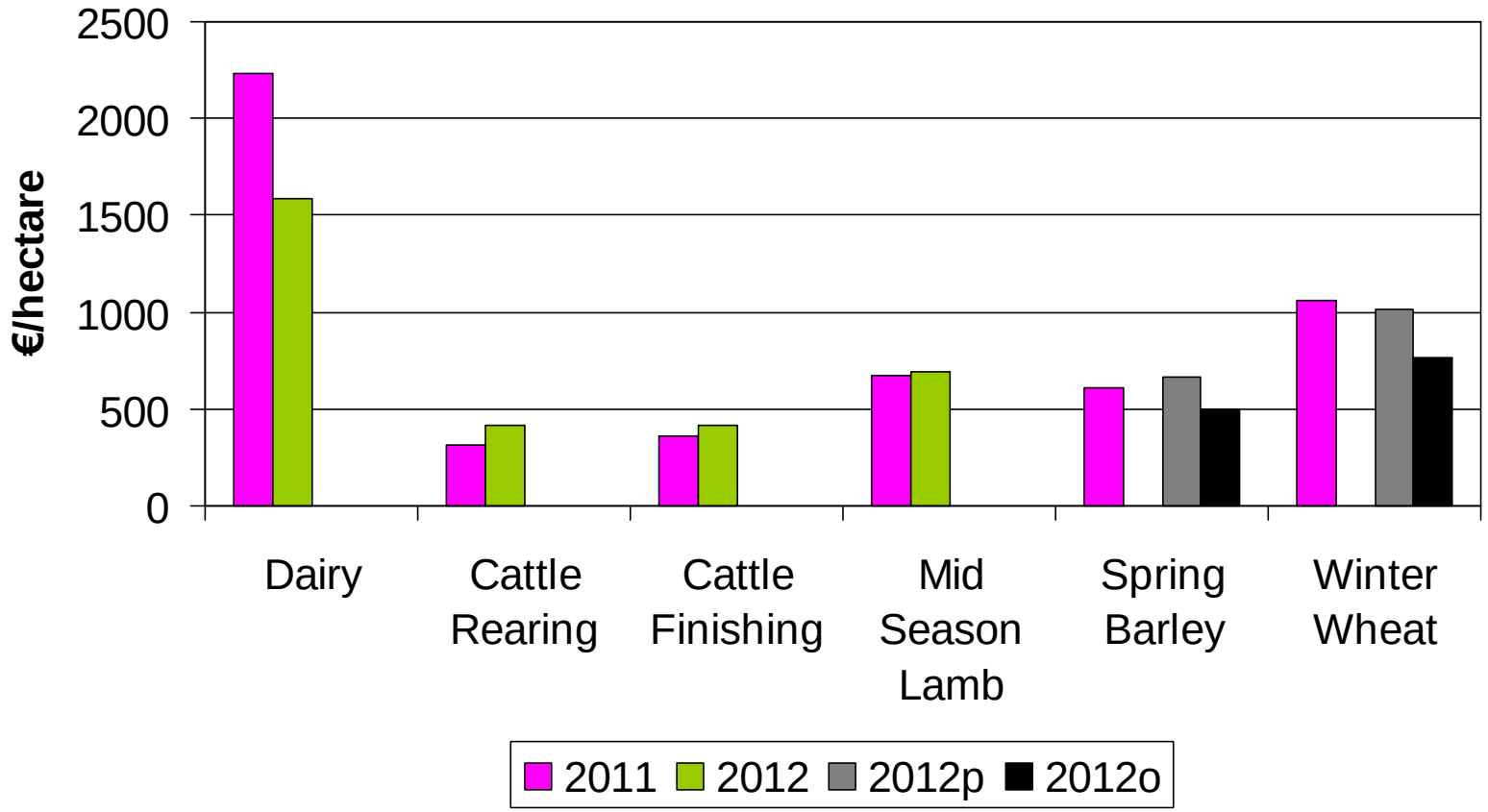


Mid-Season Lamb Gross Margin (per ha)



Source: Teagasc NFS (Various Years) & Author's estimate

Gross Margin per Hectare



p = pessimistic cereal scenario o = optimistic cereal scenario

Take Home Message 2012

- Dairy gross margins decline (30%)
  - Lower milk price
  - Higher costs (mainly feed)
- Beef gross margins increase in 2012 (15 to 30%)
  - Much higher weanling and finished cattle price
  - But higher costs (mainly feed)
- Mid season lamb gross margins unchanged
  - Average price to be similar to 2011
  - Modest rise in costs

Thank – You

AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

The Irish Agriculture and Food Development Authority

Food Harvest Targets and Irish Agriculture: Model Based Economic Analysis

Agricultural Economics & Farm Surveys Department

Teagasc

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Overview slide

- Using FAPRI-Ireland aggregate and farm level models to assess progress towards FH 2020 targets
- Two sets of analysis reported
  - FAPRI-Ireland Baseline and FH scenario projections and associated GHG emissions from Irish agriculture
  - FAPRI-Ireland farm level dairy model analysis of prospects for profitable expansion of production on existing dairy farms
- Issues and challenges in achieving FH 2020 targets

FH 2020 targets

- Focus on Food Harvest Targets for Agricultural Sector
  - Food processing industry, forestry and fishing are not considered
- Targets for 2020 relative to average of 2007-2009
  - Milk Target: 50% growth (volume)
  - Beef Target: 20% growth (value)
  - Sheep Target: 20% growth (value)
  - Pig Target: 50% growth (value)
  - No Tillage Sector Target in the FH2020 Report
    - Subject of ongoing work by Tillage Industry Group

How to evaluate progress towards FH2020 ?

- One way is to project the outlook for Ag to 2020 in the absence of Gov. and industry initiatives to meet FH targets (the FAPRI-Ireland BASELINE)
- Run a FAPRI-Ireland model simulation under which the FH value & volume targets are achieved of FH2020 (called FH2020 SCENARIO)
- Measure the difference between the BASELINE and FH2020 SCENARIOS
  - Snapshot of progress to FH2020 Targets
  - Highlights different paths towards achievement of FH targets
  - Allows for an assessment of implications of the achievement of FH targets

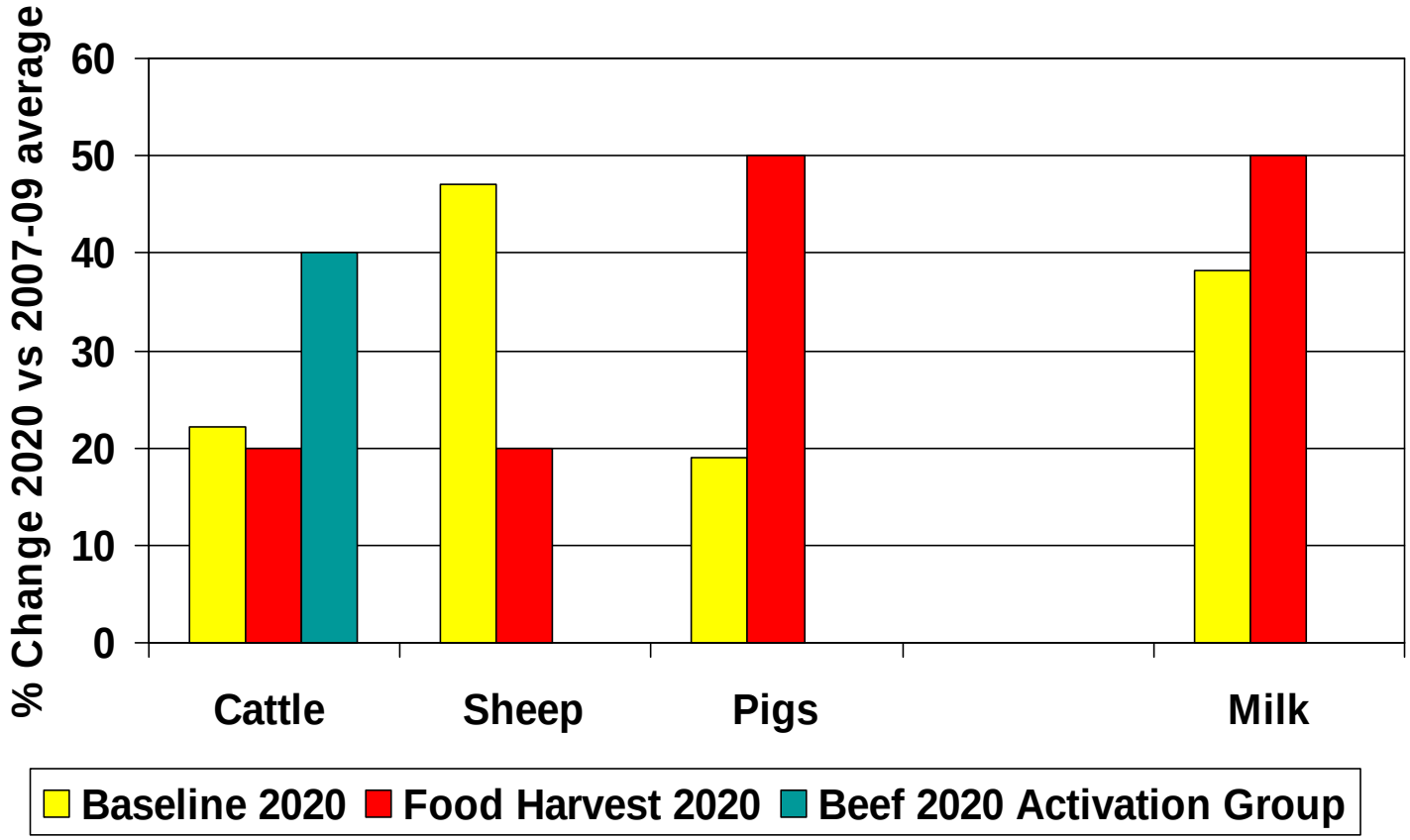
FAPRI-Ireland Baseline

- What is the Baseline ?
  - Model based projection of ag. activity, output, input & income
  - 10 year forward time horizon
  - Baseline assumes today's policies do not change
  - Unrealistic by design - we know that policy will change
    - e.g. CAP reform
  - Other policy changes less certain but possible
    - e.g. WTO, Mercosur, Irish Climate Change Bill
- Baseline a benchmark to evaluate alternative policies

FAPRI-Ireland Baseline: Summary

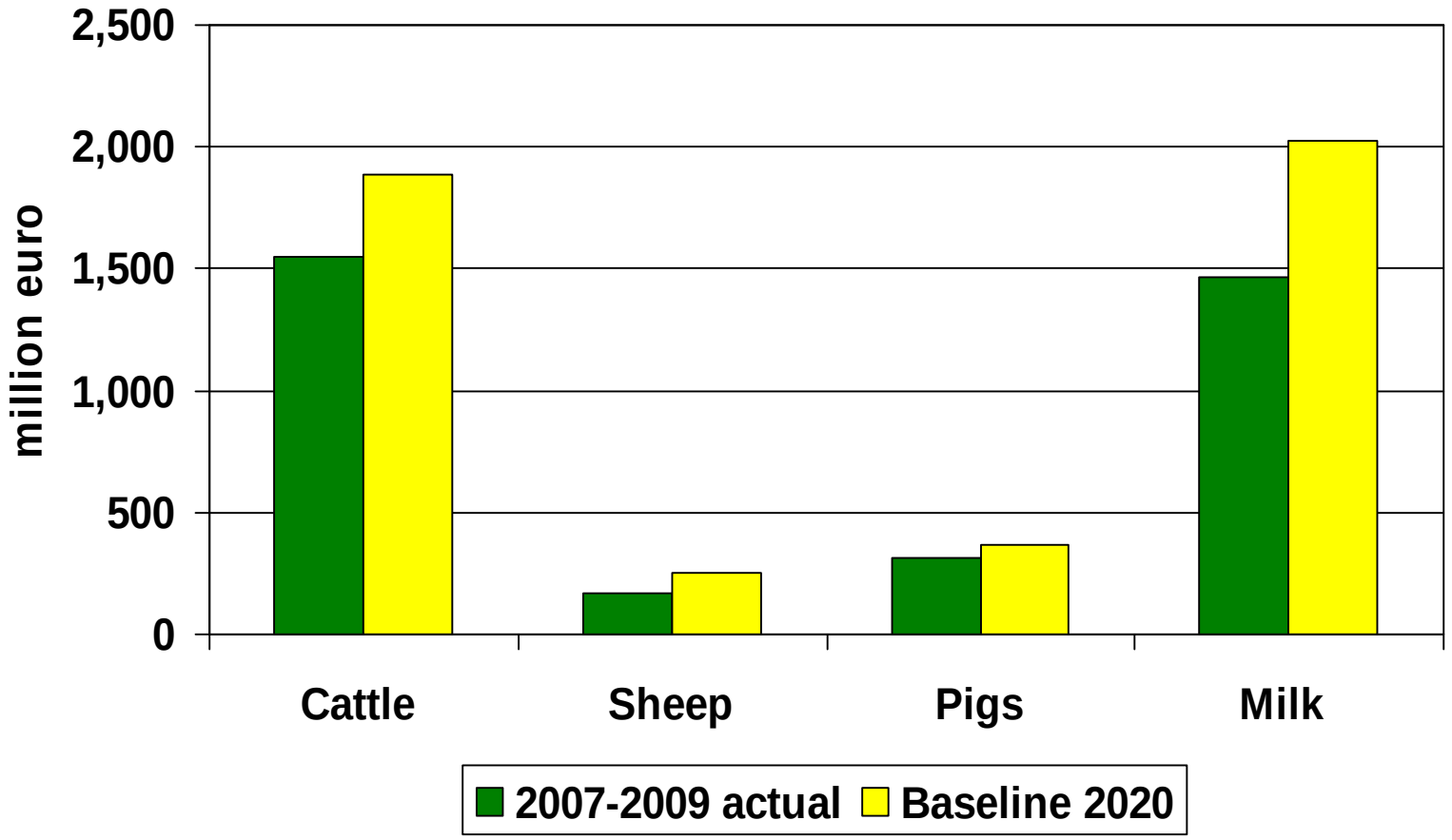
- FH2020 volume target (dairy) and some value targets for other sectors are not met
  - These results should not be considered v. surprising
  - FH2020 Targets acknowledged in the report as challenging
- Highlights need for FH policy and industry action
- Achievement of FH targets increases Ag. GHG emissions – Public Policy Challenge

Baseline Outcomes vs FH2020 Targets



Note: The milk output target is a volume target. All other targets are in value terms.

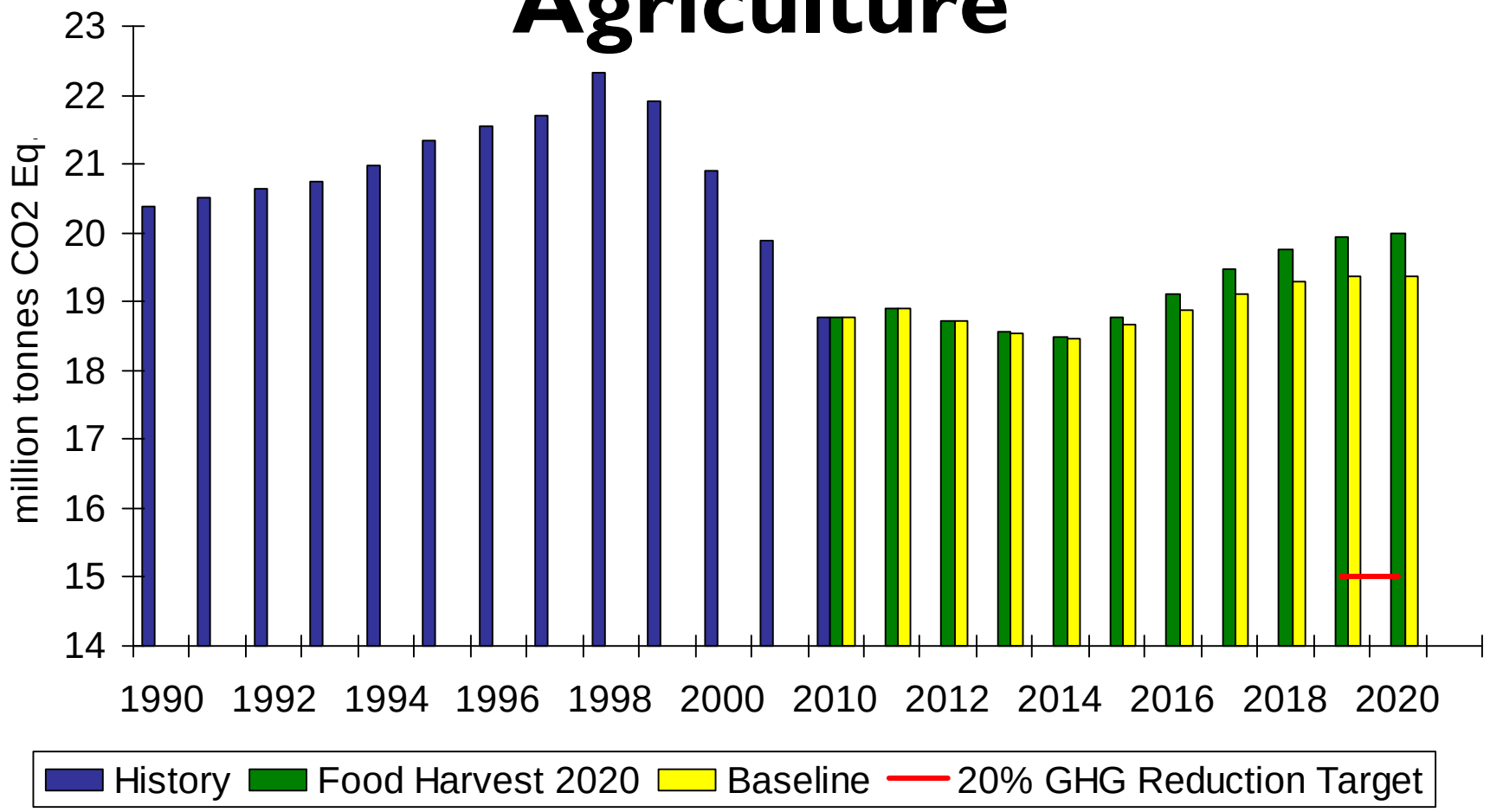
Baseline Outcomes 2020 vs. 2007-2009



FAPRI-Ireland FH Scenario

- Under the FH Scenario commodity prices and rates of productivity growth higher than under the Baseline
- Key difference is the increase in the volume of milk output to the FH target
- Increased agricultural output volume leads to a higher level of GHG emissions from Irish agriculture
- Public policy dilemma of promoting strong growth in agricultural output volume while simultaneously "decarbonising" the Irish economy

GHG Emissions from Irish Agriculture



Achieving the FH Targets

- Critical to achieving growth targets:
  - Improved productivity
  - Increased stocking rates on existing farms
  - Improved efficiency & up-take of technologies
  - Improved restructuring of land
  - New entrants to dairying

Production Expansion on Irish Dairy farms

- Examining the potential for profitable expansion on existing dairy farms
  - Subject to environmental and agronomic constraints and different milk price scenarios
- Microeconomic analysis allows us to assess:
  - Likely increase in production by 2020 from existing dairy farms
  - Scale of new entrants to dairying needed if FH targets are to be achieved
- Highlights opportunity/challenge for new entrants and regional differences in expansion potential

Production Expansion on Irish Dairy farms

- Individual farm production growth limited by current specialisation, environmental constraints and farm soil quality
- Continued improvement in productivity per cow based on research by Teagasc colleagues
  - Cumulative 23% increase 2010 to 2020 (cost neutral)
  - Pessimistic scenario of 18% increase also analysed
- Structural change in Irish dairying continues
  - Scenarios analysed scenarios 1.5% to 3% of farms exit p.a.
- Only where it is economically viable does production increase
  - Production expansion simulated under different milk prices

Percentage Change in Milk Production by 2020

Milk Price Scenario	26 CPL	28 CPL	30 CPL
Optimistic Structural change: - 1.5% per year Productivity: cumulative +23%			
Moderate Structural change: - 3% per year Productivity: cumulative +23%			
Pessimistic Structural change: - 3% per year Productivity: cumulative +18%			

Source: Hennessy and Laepple (forthcoming 2012)

Percentage Change in Milk Production by 2020

Milk Price Scenario	26 CPL	28 CPL	30 CPL
Optimistic Structural change: - 1.5% per year Productivity: cumulative +23%	18	36	43
Moderate Structural change: - 3% per year Productivity: cumulative +23%	4	19	23
Pessimistic Structural change: - 3% per year Productivity: cumulative +18%	-8	1	13

Source: Hennessy and Laepple (forthcoming 2012)

Regional Results – Optimistic Scenario

Milk Price Scenario	26 CPL	28 CPL	30 CPL
South (Cork & Waterford)	25	43	52
South West (Kerry, Clare, Limerick & Tipperary)	22	38	42
East (Kildare, Wicklow, Laois, Carlow, Kilkenny & Wexford)	15	27	44
Rest	9	34	37

New Entrants Required – Optimistic Scenario

Milk Price Scenario	26 CPL	28 CPL	30 CPL
Additional milk output required (million litres)	1,372	853	427
Additional farms (w. average herd of 100 cows)	2,287	1,422	712
Additional land area ('000s of hectares)	88	55	27

Conclusions

- Microeconomic analysis of expansion potential on existing Irish dairy farms also suggests that 50% target unlikely to be met
- Microeconomic analysis highlights
  - The sensitivity of economically viable expansion to milk price
  - The importance of continued improvement in productivity
  - The new entrants required if FH2020 targets are to be met
  - The constraint imposed by agricultural land availability
- Current rates of new entrants to dairying will have to increase if FH targets are to be met