

## **Climate Policy – can small countries make a difference?**

12:30-14:00 Adam Auditorium, City Gallery, Civic Square,  
Wellington

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University College Dublin

Ireland ([frank.convery@ucd.ie](mailto:frank.convery@ucd.ie))

From June 2, 2014, Chief Economist, Environmental  
Defense Fund, New York City

# Key Points

## **Europe**

Pragmatic believer in markets

Adapts to changing circumstances

Russian crisis and COP 21 in Paris drivers for continued progress

But rising Euro-scepticism and economic crisis threat

## **Ireland**

- Interesting but limited leadership in mobilising markets  
e.g. plastic bags levy, carbon tax on NETS
- Crisis can be opportunity
- Farming as emerging new frontier

# Outline

## EUROPE

how it works

European Climate policy

Emissions Trading

## IRELAND

Carbon tax

Agriculture

# NZ and Ireland – rugby and rugby

Reading: *I, George Nepia*, by George Nepia and Terry McLean

**Tuesday, October 31, 1978**

Munster 12

All Blacks 0

Only time an Irish team has beaten All Blacks

Very successful play – *Alone it stands*

**Dublin, Sunday Nov 24, 2013** (I was there..)

Ireland 22

All Blacks 24

# Why Bother? Grand daughter Grace

Born: September 23, 2010



# EUROPE AND HOW IT WORKS

# The European Union



# Decision-Making

3 legged stool

Member State leaders (28) - the 'European Council' - meet every six months, and agree strategic direction.

1. The European Commission proposes policy initiatives, and enforces decisions with the European Court
2. The member states make the decisions in partnership with
3. The directly elected European Parliament

# Overcoming mutual antipathy..

Edward Mortimer: *A nation..is a group of people united by a common dislike of their neighbours, and a shared misconception about their ethnic origins*

- Politicians
- Bureaucrats
- Business

# Europeans – why allergic to violence?

## ***Memories of the Future*** (Charles Simic)

*There are one or two murderers in any crowd.  
They do not suspect their destinies yet.  
Wars are started to make it easy for them  
To kill a woman pushing a baby carriage.*

# Monnet and Schuman and Adenauer – joint sovereignty the solution

*to make a breach in the ramparts of joint sovereignty which will be narrow enough to secure consent, but deep enough to open the way towards the unity that is essential to peace.*

# Strategic Concerns and Cultural Drivers

## **Strategic**

Dependence on oil from Middle East

Dependence on Russian natural gas

In both cases, supply interruption and/or price spikes a concern.

**Cultural** – Luther and Calvin impulses

George Bernard Shaw

*An Englishman thinks he is being moral when he is merely uncomfortable*

**Table 2. Proven Reserves of Oil 2008**

| <b>Country</b> | <b>Volume Billions of Barrels</b> | <b>% of Total</b> |
|----------------|-----------------------------------|-------------------|
| Saudi Arabia   | 267                               | 20                |
| Canada         | 179                               | 13                |
| Iran           | 138                               | 10                |
| Iraq           | 115                               | 9                 |

**Table 3. Proven Gas reserves, 2005**

| Country      | Trillion Cubic Feet | % of total |
|--------------|---------------------|------------|
| Russia       | 1680                | 28         |
| Iran         | 940                 | 16         |
| Qatar        | 910                 | 15         |
| Saudi Arabia | 235                 | 4          |

# The Russia Factor

European Council meeting March 21, 2014

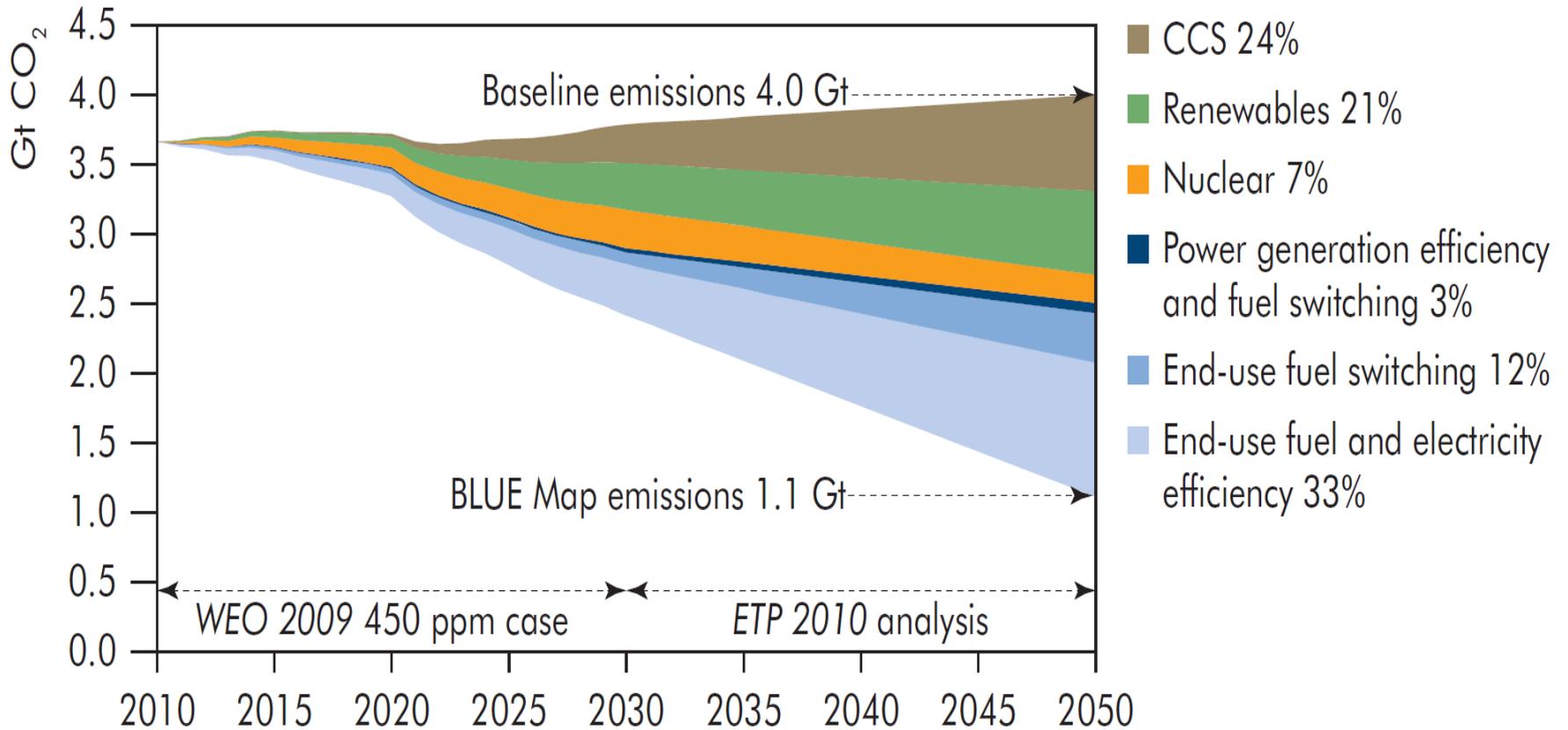
Prepare a plan to for the reduction of energy dependence...accelerate further diversification...including the development of interconnection.....

# EUROPEAN CLIMATE POLICY

# Global CO2 Emissions

| Jurisdiction       | Total Emissions 2012<br>Billion tonnes of CO <sub>2</sub> | % of Global total | Per Cap emission 1990<br>Tonnes of CO <sub>2</sub> | Per cap Emission 2012<br>Tonnes of CO <sub>2</sub> | % change in per cap emissions 1990 to 2012 |
|--------------------|---|-------------------|--|--|--|
| USA                | 5.19  | 15.0              | 19.6   | 16.4   | -17  |
| EU                 | 3.74  | 10.8              | 9.1  | 7.4  | -19  |
| China              | 9.86  | 28.6              | 2.1  | 7.1  | +233                                       |
| <b>Total</b>       | 18.79   | <b>54.4</b>       |  |  |  |
| Other              | 15.71   | 45.5              |  |  |  |
| <b>Grand Total</b> | 34.5  | 100               |  |  |  |

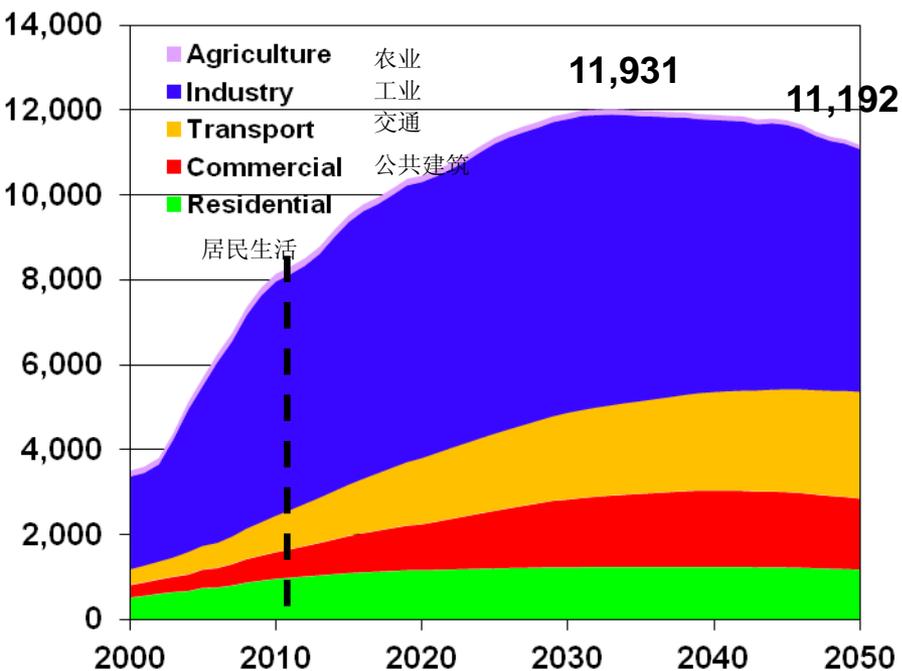
## OECD Europe, CO2 emissions



# Carbon Emissions Outlook for China (without Carbon Capture and Storage)

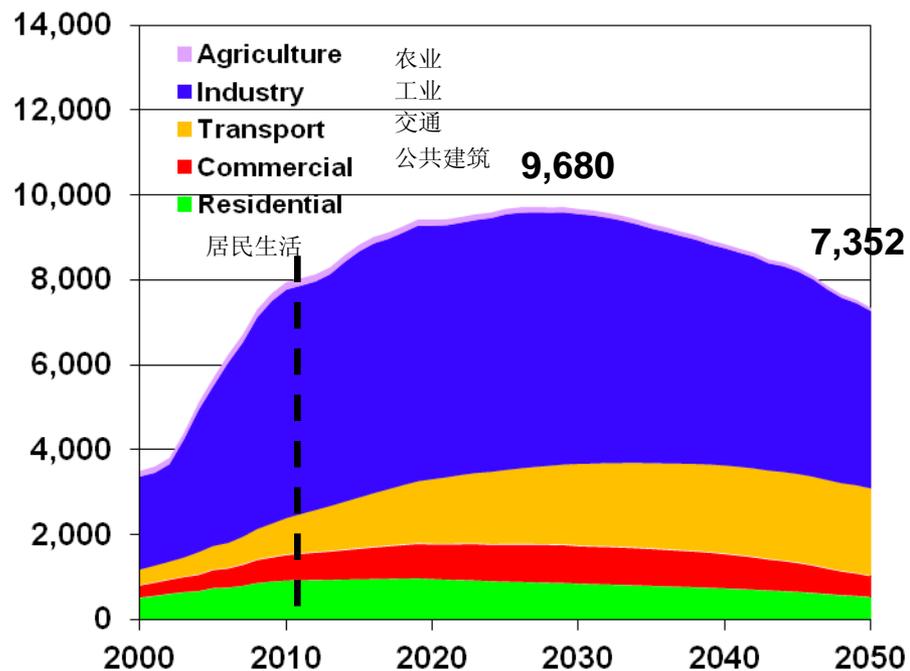
持续改进

Continued Improvement



加速改进

Accelerated Improvement



Mt CO2 Emissions

# European policy – believes in incentives and markets

Moral suasion limited in effect

The pure altruists amongst us exist, but we are few indeed

**Mencken:** *Conscience is the quiet voice that tells us someone may be looking*

**Larry Summers;** *No one washes a rental car*  
Applies to nation states as well as individuals

# EMISSIONS TRADING IN EUROPE

# A process

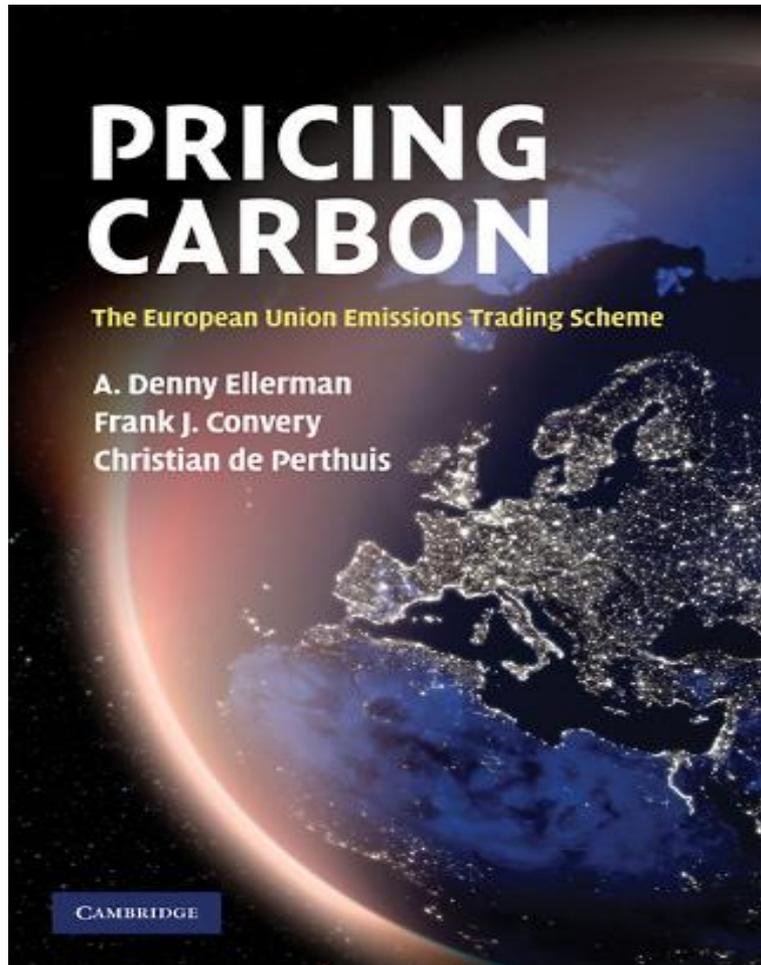
Carbon tax failure - 1992-97

Phase 1 (2005-07) – over-allocation, free, decentralisation, no banking into second phase, pooling, opt out.

Phase 2 (2008-12) - supply tightened, banking into second period allowed.

Phase 3 (2013-20) – more supply tightening, auctioning

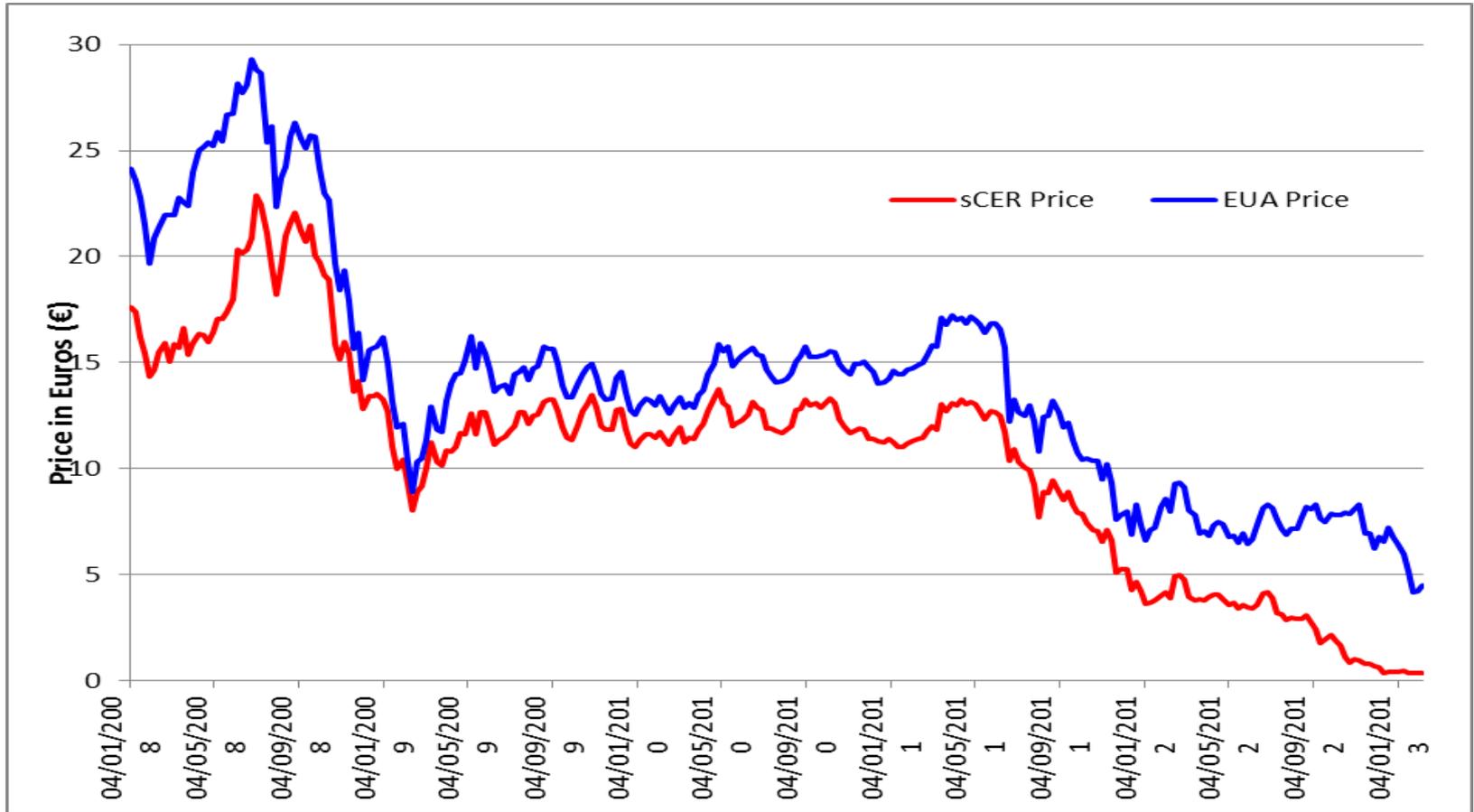
# Source



# The Great Recession – Real GDP growth, EU and US

| Year              | EU27 | US   |
|-------------------|------|------|
| 2002              | 1.3  | 1.8  |
| 2003              | 1.5  | 2.5  |
| 2004              | 2.5  | 3.5  |
| 2005              | 2.1  | 3.1  |
| 2006              | 3.3  | 2.7  |
| 2007              | 3.2  | 1.9  |
| 2008              | 0.3  | -0.3 |
| 2009              | -4.3 | -3.1 |
| 2010              | 2.1  | 2.4  |
| 2011              | 1.5  | 1.8  |
| 2012              | -0.3 | 2.1  |
| 2013 <sup>a</sup> | 0.4  | 2.3  |

# Allowance Price and CER Price 2008-2013



# Why price collapse – supply exceeded consumption

|                                       | ETS Phase II |      |      |      |
|---------------------------------------|--------------|------|------|------|
| ETS Sector                            | 2008         | 2009 | 2010 | 2011 |
| Kyoto Unit Compliance Use (millions)  | 82           | 81   | 134  | 252  |
| Surrendered CERs                      | 82           | 78   | 114  | 177  |
| Surrendered ERUS                      | 0.05         | 3    | 20   | 75   |
| Issued allowances (M EUAs)            | 1994         | 2024 | 2070 | 2084 |
| Available Compliance Units (millions) | 2076         | 2105 | 2204 | 2336 |
| Verified Emissions (Mt)               | 2100         | 1860 | 1919 | 1886 |
| Cumulated EUA Surplus M               | -24          | 221  | 506  | 956  |

# The Implications of 'Do Nothing'

The need for intervention

Some Benefits to doing nothing, but overall,  
costs are likely to be much greater

# Implications of no intervention (16 points)

## Environmental

1. Achieve legally binding emissions target (-21% from 2005 by 2020), *But:*
2. Efficiency gap between incentive to abate in EU ETS and non-trading sectors (NETS)
3. Collapse of Carbon Capture and Sequestration (CCS)  
- no funds available, no price incentive
4. 'Lock in' of coal likely

*European Power: 2012 in Review* A Platts.com  
news feature (Jill Ambrose)

“UK electricity generation shifted further from gas-fired power towards coal-fired generation in 2012, a trend that looks set to continue in 2013 as rising gas prices erode the profits of combined cycle gas turbine use -- allowing coal burn to soar in line with falling fuel and emissions allowance costs.

Coal-fired power rose by 49.9% from the same quarter the previous year to 28.66 TWh in Q3, on the back of favourable clean dark spreads -- *the difference between the price of power and the cost of coal and carbon.*”

# Consumers and other stakeholders

## Consumers

5. Reduced price rise for consumers of electricity as a result of the reduced pass through

## Other Stakeholders

6. Non-Governmental Organisations - Diminished support for EU ETS - Transfer of support to individual plant regulation.

7. Electricity generators - fear replacement of EU ETS by other policy instruments (Eurelectric)

8. Heavy Industry in EU ETS – welcome very low (or zero if free allocation) allowances

# Enterprise and Competitiveness, member state Budgets

## **Enterprise and competitiveness**

9. Low Costs of compliance for incumbents – modest outlays to pay for allowances sold at auction from 2013

10. No need to intervene to address carbon leakage or competitiveness concerns

11. But ‘new wave’ of innovation and enterprise in energy efficiency, energy storage and renewables inhibited.

## **Government Budgets**

12. Reduced revenues to government from allowance auctions

13. Diminish potential to reduce, or in some cases eliminate, price supports needed to sustain conventional renewable energy – notably wind power.

# Strategic

14. Fragmentation of the single market as member states do their own thing, including a floor price (the UK has already done so).
15. Flagship status of EU climate policy undermined – a judgement by international players (e.g. China) that Europe not a credible model to follow, or link with.
16. Increased import dependence – allowance price acts de facto as tax on energy imports

# Intervention Proposals European Commission 2030 1

## **Further Reduce Cap**

Legally binding GHG emissions target for 2030

-40% from 1990 base

[Current policy would result in -32%]

Comprised:

**-43% in EU ETS** (2005 base)

Annual decline rises from 1.74% to 2.2% from 2020

-30% in NETS

## **Increase Renewables**

27% share of final energy consumption – *no national targets*

Electricity share from 21% today to 45% in 2030

No support for food-based biofuels

More cross border interconnection, storage, smart grids

## **Increase Energy Efficiency**

Increased level of 25% to achieve GHG reduction target of 40%

EU wide energy efficiency standards for appliances, equipment, buildings, CO2 standards for buildings

# EU ETS Reform

## **Back Loading**

Postpone auction of 900 million allowances – approved in December 2013

## **Market Stability Reserve from 2021**

“provide an automatic adjustment of the supply of auctioned allowances, downward or upwards based on a pre-defined set of rules and would improve resilience of to market shocks and enhance market stability..no discretionary supply management.”

# Market Stability Reserve(MSR)

Basis for intervention – the amount of allowances in circulation

“The sum, since 2008, of all allowances allocated for free or auctioned, plus Kyoto credits used, less the emissions of covered installations.”

When allowances:

Above threshold (833 million tonnes), 12% removed from auction and placed in MSR

Below threshold (<400 million tonnes), 100 MT removed from reserve and added to auction.

# Prospects of approval by Council (governments) and European Parliament

## Positive

- Russia
- Pressure to have a package agreed for COP 21, Paris (December 2015)

## Negative

- Public priority on employment and incomes
- Growing influence of Euro scepticism

# Conclusion - European Policy continues to evolve and address challenges

Pragmatism is key – carbon tax failure, go for Trading; ‘too many’ allowances, increase ambition

Multiple instruments gets key power centres into the tent.

Crisis from 2009 - ‘force majeure’

History is always a surprise.

If EU economy recovers vigorously, the Market Stability Reserve will be used mainly to dampen down price?

# IRELAND AND THE CARBON TAX

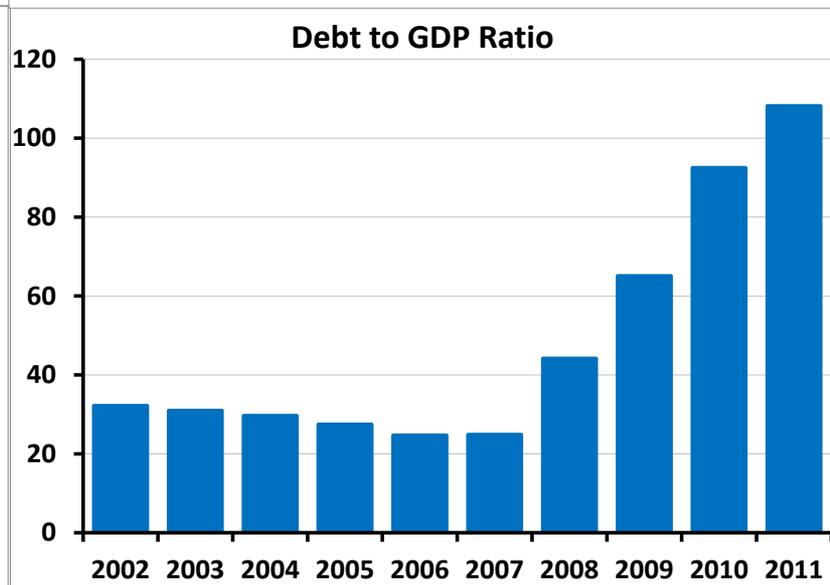
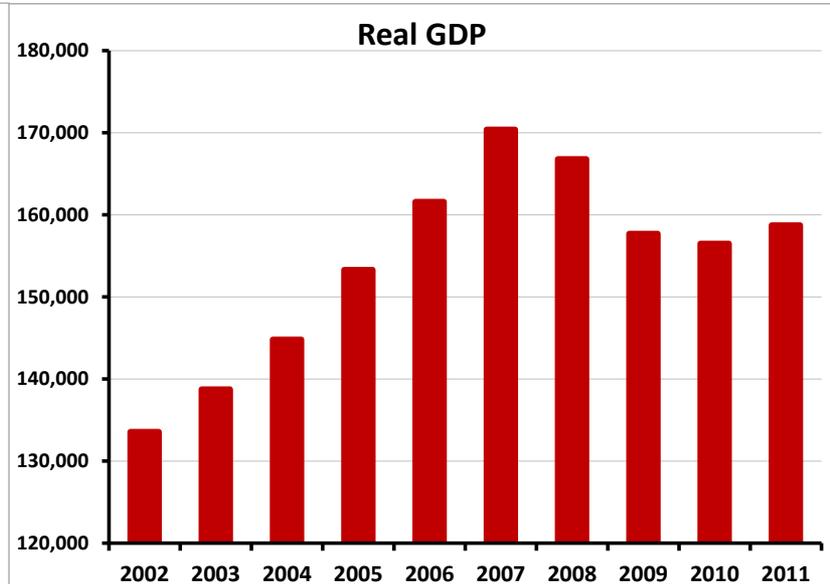
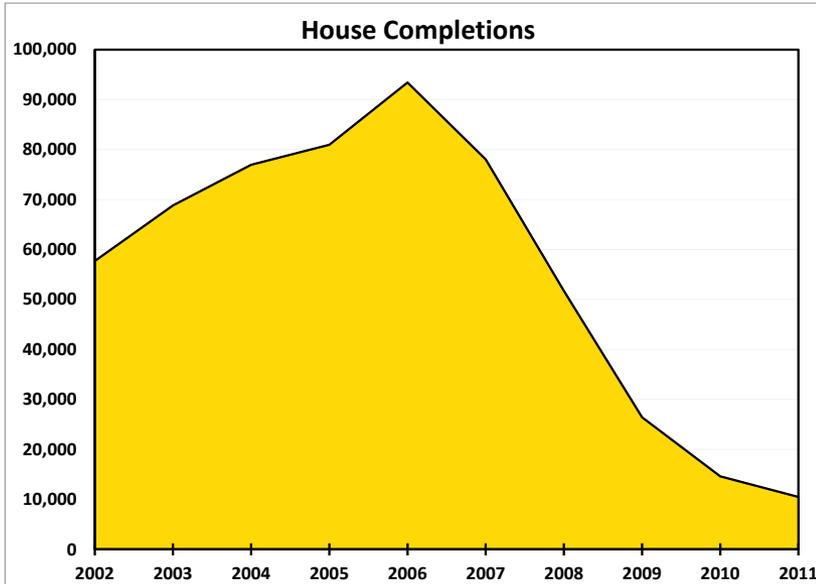
# The value of small nations...

*All the world owes much to the little “five feet high” nations. The greatest art of the world was the work of little nations. The most enduring literature of the world came from little nations. The heroic deeds that thrill humanity through generations were the deeds of little nations fighting for their freedom. And, oh, yes, the salvation of mankind came through a little nation.*

President John F Kennedy, to the Irish Parliament, June 1963 quoting Lloyd George...

# The Economic Collapse

- Global Crisis + Domestic Crash



# Dedicated to: Rahm Emanuel, President Barack Obama's former chief of staff

“You never want a serious crisis to go to waste,”  
speech at a *Wall Street Journal* conference in  
November 2008.

# Environmental taxes – why they don't happen

Power of incumbency

Japanese PROVERB – *a new tax is a bad tax*

Edmund Burke – *to tax and to please, not more than to love and be wise, is not given to man*

# The Crash: Some economic indicators Ireland, 1990, 2007 and 2012

|  | 1990 | 2007  | 2012  |
|--|------|-------|-------|
| Real GDP (EUR billion)                 | 66.8 | 170.4 | 159.7 |
| Total employment (Millions)            | 1.2  | 2.1   | 1.8   |
| Unemployment rate (%)                  | 12.9 | 4.6   | 14.8  |
| General government net debt (% of GDP) | 93.5 | 11.1  | 103.4 |

# The Adjustment (IMF, European Commission, ECB)

- The Troika programme provides up to EUR 85 billion over a three-year period to assist public finance needs and facilitate banking assistance.
- BUT Increase Taxes, reduce expenditure, labour market and banking reform

Enter the Carbon Tax

# Carbon Tax - €15 then €20 per tonne on NETS emissions from 2010

| <b>Category</b>  | <b>Million<br/>tonnes of<br/>CO<sub>2</sub></b> | <b>% of total<br/>emissions<br/>covered</b> |
|--|---|---|
| <b>Residential</b>                                     | 6.59  | 11.49                                       |
| <b>Transport</b>                                       | 11.23   | 19.58                                       |
| <b>Industry and<br/>commercial (not in EU<br/>ETS)</b> | 4.26  | 7.43  |
| <b>Total NETS covered</b>                              | 22.08   | 38.51                                       |
| <b>Total Emissions<br/>(including EU ETS)</b>          | 57.34   |   |

# Excluded and Policy Slippage

EU ETS

Methane and Nitrous Oxides (mainly agriculture)

Since July 2013, refund to the Freight industry

# Austerity measures required by Troika and carbon tax

Ireland, 2010-2012, EUR million, current

| Period          | Total Tax increases | Carbon tax | Carbon tax as % of tax |
|-----------------|---------------------|------------|------------------------|
| Budget 2010     | 1 000               | 246        | 24.6                   |
| Budget 2011     | 1 400               | 329        | 23.5                   |
| Budget 2012     | 1 600               | 344        | 21.5                   |
| Total 2010-2012 | 4000                | 919        | 23.0                   |
| Cumulative tax  | 7400                |            | 12.4                   |

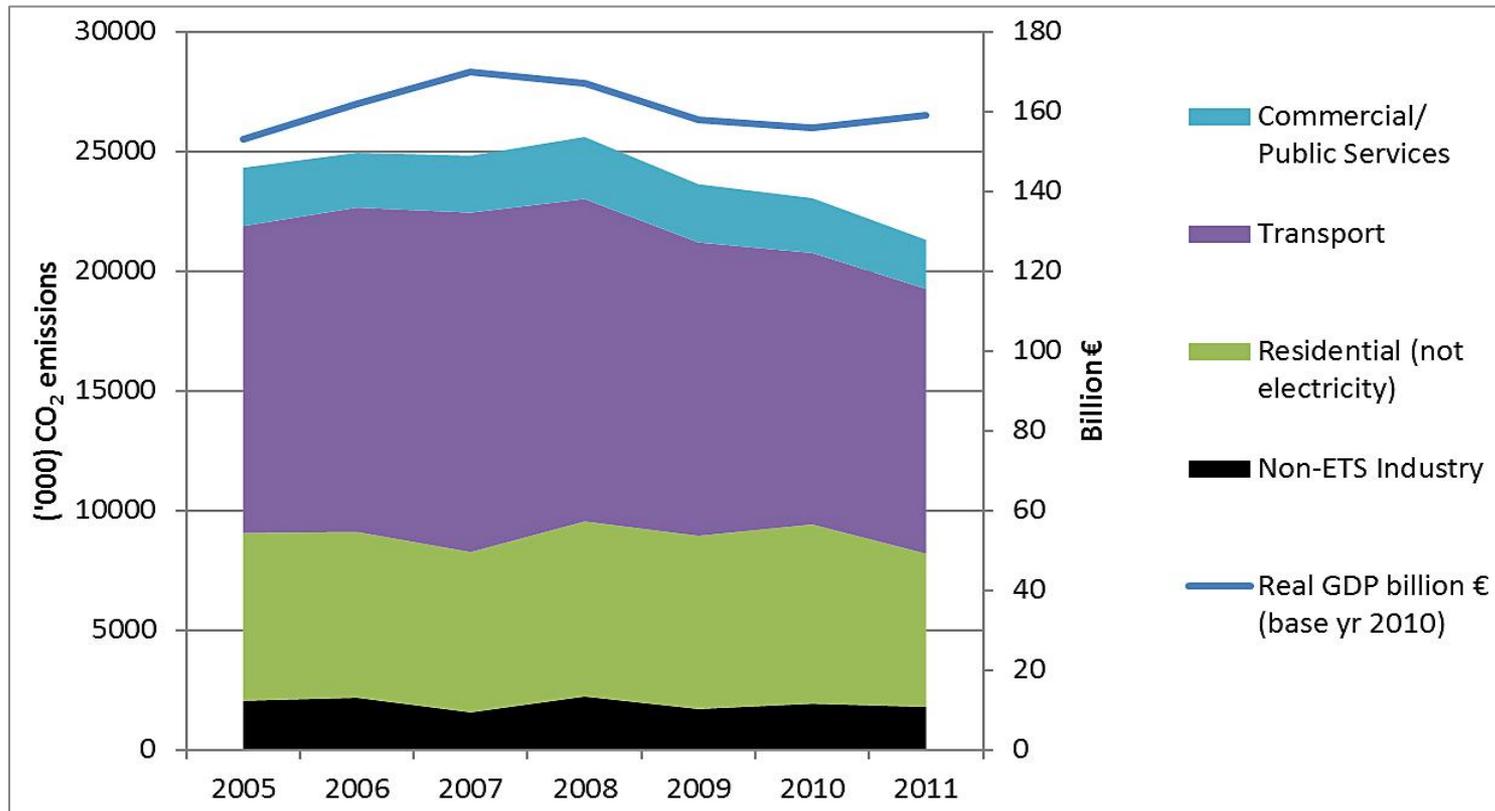
# Competitiveness

- OECD (2009): *Corporate taxes are found to be the most harmful for growth, followed by personal income taxes, and then consumption taxes. Recurrent taxes on immovable property appear to have the least impact. A revenue-neutral growth oriented tax reform would, therefore, be to shift part of the revenue base from income taxes to less distortive taxes such as recurrent taxes on immovable property or consumption*

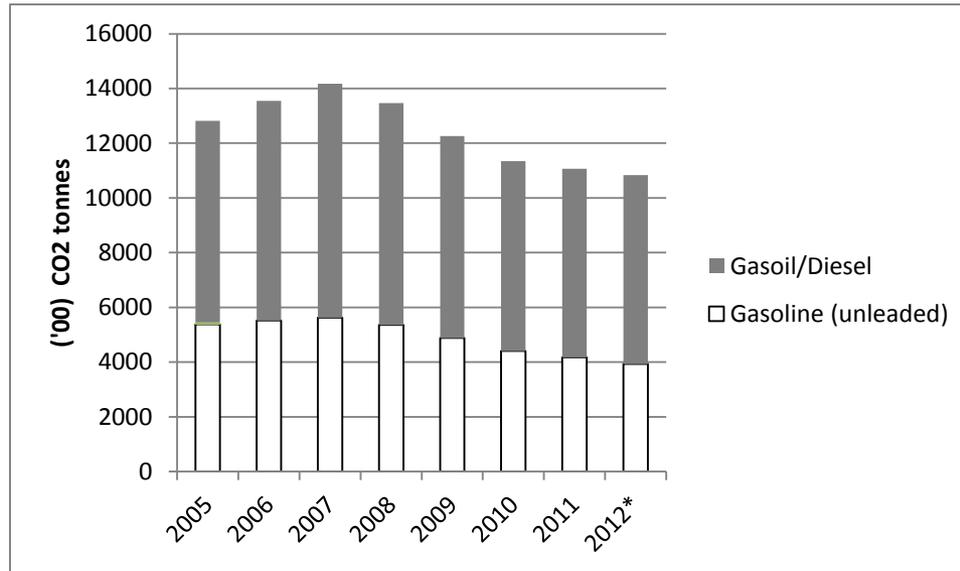
Seems plausible that negative economic impact in terms of jobs and employment would have been *more severe* if, instead of the carbon tax, income taxes had been raised further, albeit by only 2.5%.

# Environmental Effectiveness – Sources and GDP

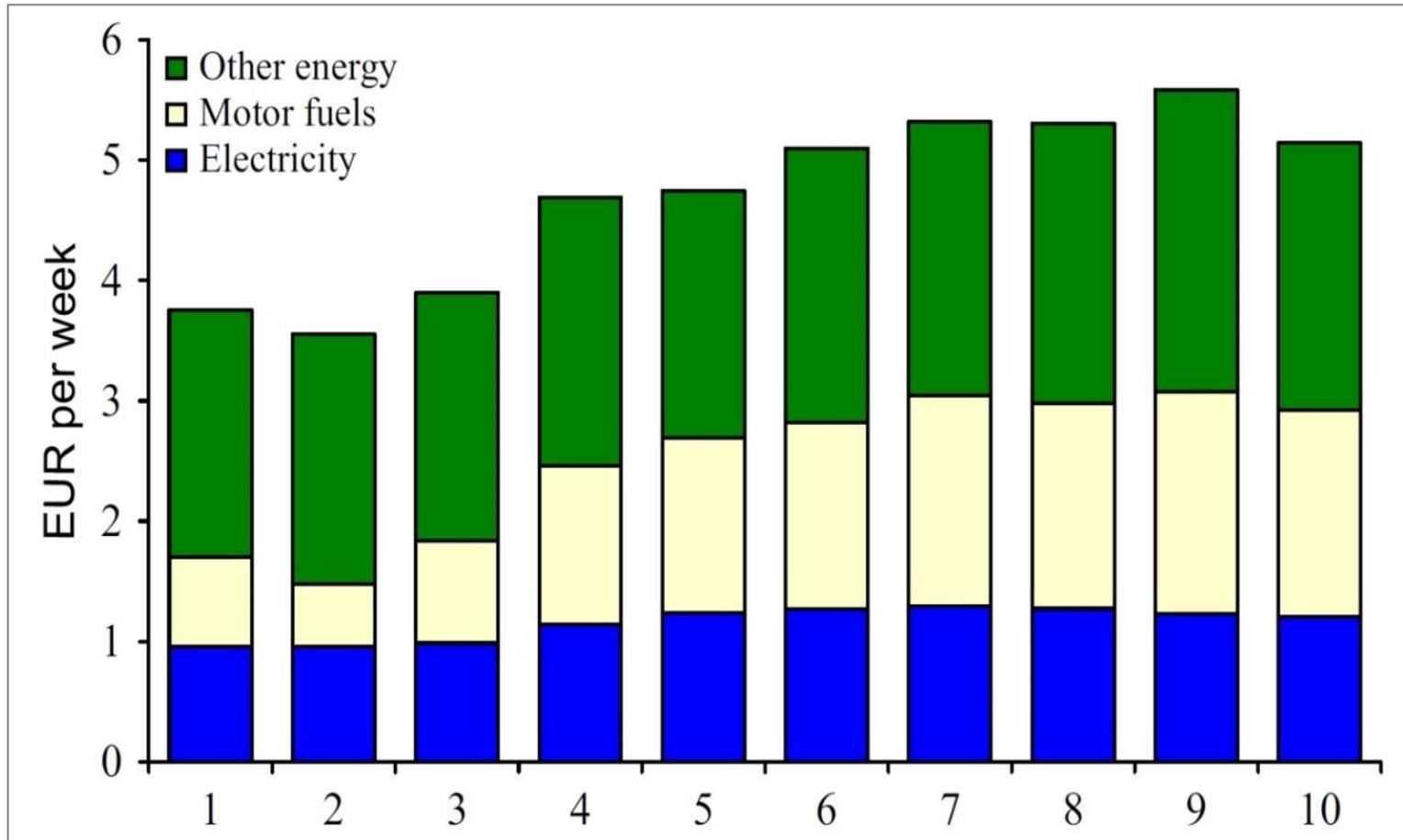
Caveat: Economic decline and important contributor to emissions decline



# Transport Emissions



# Impact per household per week of €20 carbon tax – ex ante estimate



# Main policy instrument for social purposes

Fuel Allowance (income based), per household  
€20 per week, or €520 in total.

Costs rose from €82 million in 2005 to €250 million in 2011

The duration of the scheme as it applies in 2013 has since been cut from 32 to 26 weeks.

# ***Why did it happen in Ireland?***

1. Leadership by the Green Party:
2. Limited public opposition: the carbon tax is just a little more noise in a cacophony of bad news.
3. Government need for the income:
4. Support the green economy: rhetoric or reality?
5. Support from the academic and wider policy community:
6. Removal from the policy pitch of the main business (in EU ETS) and farming opponents:
7. Effective engagement and good planning

# Some Conclusions

- Crisis does indeed create opportunity; and the more severe, the better
- Revenue valuable role *at the margin* in meeting obligations for tax increases
- Trade-off between scope and effective rate of tax
- Need to revisit the analytics of recycling and the double dividend
- Imperative to reduce debt limits extent equity can be addressed
- Difficult to draw conclusions about environmental effectiveness.
- Pay attention to the 'green economy' performance and issues relating to the tax
- Where alternative is to raise taxes on labour, carbon tax on NETS in general will not damage competitiveness.
- carbon rate likely to be higher than equiv. allowance price in EU ETS

# AGRICULTURE (2012)

6.3 million Cows

3.4 Million Sheep

# Farmers are different

Pliny the elder: *The agricultural population, says Cato, produces the bravest men, the most valiant soldiers, and a class of citizens the least given of all to evil designs.*

# The Key source



# Greenhouse Gas Emissions Ireland 2011

| Sector                                   | Million tonnes<br>of CO <sub>2eq</sub> | % of NETS |
|--|--|-----------|
| Total Trading (power and heavy industry) | 15.7                                   | na        |
| Non Trading (NETS)                       |  |           |
| Agriculture                              | 18.4                                   | 44.3      |
| Residential                              | 6.6                                    | 15.8      |
| Transport                                | 11.2                                   | 27.0      |
| Waste                                    | 1.0                                    | 2.5       |
| Industry and commerce                    | 4.3                                    | 10.3      |
| Total Non Trading                        | 41.6                                   | 100       |
| Grand Total                              | 57.3                                   | na        |

# The NETS Challenge

Legally binding national cap for NETS of **40.6** million tonnes of CO<sub>2</sub>eq to 2020.

Emissions already at **41.6** million

Reductions must come from (% of total emissions in 2011 in brackets)

Agriculture (44.3), transport (27.0), residential (15.8), industry (10.3), waste (2.5)

And agriculture wants to expand milk production by 50% by 2020 (Food Harvest 2020)

# The Response - top down

Communication from the Commission – policy framework for 2030, p. 15

## 4.2 Agriculture and Land Use

...“land use, land-use change and forestry should be included in the GHG reduction target for 2030.

Further analysis will be undertaken with the aim of assessing the mitigation potential and most appropriate policy approach which could, for example, use a future Effort Sharing Decision governing the non-ETS GHG emissions *or an explicit separate pillar, (emphasis added)* or a combination of both. Accompanying policy measures should also build on the experiences from "greening" under the Common Agricultural Policy and ensure coherence with other Union Policies.”

# Response – National

**Harvest 2020** “Capitalising on Ireland’s association with the colour ‘green’ is pivotal to developing the marketing opportunity for Irish agri-food. This will build on our historic association with the colour and highlight the environmental credentials associated with our extensive, low-input, grass-based production systems. “

**Origin Green Bord Bia**

Competition for Green credentials in international markets  
Campina (Dutch), Arla (Swedish), New Zealand

# Response – bottom up

## - Kevin Tuck, MD Alltech

1. Food and drinks companies sourcing low carbon footprint supply – Baileys, McDonald's
2. Development of assessment tools at farm level ('Navigator' by Finbarr Mulligan, Teagasc)
3. Research on:
  - Feed inputs
  - Efficiency of animals
  - Waste management
4. Ability to separate milk that is 'low carbon eq' from the rest (new Bellvue plant in Waterford)

# Performance and Prospects

Pieces falling into place

But no payoff **yet** to farmers that participate,  
and no penalties to those who do not  
(Bellvue plant crucial here)

# Can small countries make a difference?

**Yes**

For **themselves**

- appropriate pricing results in a better environment and more competitive economies

For **others** if approach is exported

Plastic Bags levy

Carbon tax on NETS – being considered in Greece, Portugal, Cyprus, France

**Next** – Pasture based farming?

Ireland and NZ competitors and partners

But pressures to undermine progress never sleep, e.g. Freight transport in Ireland

# Thank you

