# Major issues in the post Kyoto – Protocol period

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# A. The Atlantic-Pacific Emissions Trading Arc (APETA) – from EU ETS to US ETS and JA ETS

From global commons and market failure to the Atlantic Arc Emissions Trading Club

EU ETS

US ETS

JA ETS

# The Twelve Apostles

There are 12 countries - US, China, European Union, Russian Federation, India, Japan, Brazil, Canada, Mexico, South Korea, Indonesia, Australia - that contribute over 75 per cent of emissions. **Getting them into the Club is the key climate change policy objective.**

Groucho Marx: *I wouldn't want to join any club that would have me for a member*

# Prospect for 2013

An emissions trading scheme in $CO_2$ and other greenhouse gasses will exist in:

the US (US ETS)

the European Union (EU ETS)

Japan (JAETS)

Australia (AU ETS)

and Canada (CA ETS)

These will be linked.

Design and implementation of the Pacific-Atlantic trading arc will be informed by the experience of the European Union Emissions Trading Scheme (EU ETS)

# Price Signal

To all *emitters*:

‘If you can reduce GHG emissions, you can make money’.

And to all *innovators*:

‘If you can develop a technology that reduces emissions you can make money.’

# The Innovation Dividend

Wave of new greenhouse gas reducing industry and services – the ‘low carbon economy’ - created by this shift in the developed world leadership,

Millions of new jobs, wealth, and relocation of economic activity to those global regions that develop comparative advantage. Japan will be one of the ‘winners’.

These schemes will be **linked**, such that there is fungability between schemes, and a common price.

# Why change in the US?

Unwillingness to cede leadership permanently in any serious global endeavour.

Not easily be modelled, but it is in the US DNA to be in front.

Sense of moral purpose – as in Sweden also

Business leadership – venture capitalists in Silicon valley, General Electric – business and jobs dividends

Reduced damage

# Why the European Union?

The modern EU lacks a unifying tradition
Addressing climate change provides a bonding challenge and opportunity that simultaneously transcends war and provides a sort of idealism – ‘saving the world with European leadership’ - that most of the almost 500 million citizens of the Union can share.

No evidence that EU ETS has been seen damaged competitiveness

# Why Japan?

Japan's interest to be part of a scheme that:

(a) globalises the solution and provides access to low cost abatement options

(b) provides a global price signal that allows Japanese innovation and industry to capitalise on the business opportunities provided by a low carbon economy. Apply initially in the transport and solar cell sectors, but will expand to include a range of energy efficiency and carbon capture and sequestration technologies

(c) Provides membership of an exclusive club.

Voluntary scheme a good experiential platform

# Allowance Price as Tax on Fossil Fuel Imports

The allowance price comprises in effect an import tax on imported fossil fuels

Assists in reducing vulnerability on supplies of oil and gas and natural gas from the Middle East, Russia etc.

# From 2017-20, the club expands

From **2017**, China and India will agree to cap their emissions, and participation in the Atlantic Pacific Arc Trading Scheme will follow, probably around **2020.**

Other countries – Brazil, Canada, Mexico, S.Korea, Indonesia - will follow. At this point also, Russia will decide to join a trading scheme

# Why?

§ 1. Economies increasingly dependent on trade with the original Atlantic-Pacific Arc countries.

2. Formal trade barriers precluded by WTO rules - but increasing consideration of border taxes and other trade related sanctions applied to those countries not in a capped trading scheme.

3. These countries very vulnerable to negative effects of climate change. Public pressure will build on their governments to be seen to join the global effort to reduce the risks of catastrophe.

§ 4. Attractive package comprising some combination of generous allocation allowances, aid and trade-related concessions in exchange

# Insights from EU ETS 1

## (a) Miracles happen, and people evolve.

From opposition in 1997 to fervent advocate. The same can happen in the US and Japan

As the Psalmist puts it: *The stone which the builders rejected has become the corner stone.*

# (b) The power of the Zeitgeist – the spirit of the moment – is not to be underestimated

Keynes:

*The ideas of economists, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist…. I am sure that the power of vested interests is vastly exaggerated, compared with the gradual encroachment of ideas.*

(c) The European Scheme involved achieving a sufficiency of convergence across a continent of diverse economies and cultures.

Achieved with 25 countries and 23 languages, and per capita GDP spread from $43,000 (Ireland) to $14,000 (Latvia)

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*

Easy for relatively homogenous economy and cultures of Japan and the US?

# (d) History is always a surprise – most allowance price predictions got it wrong.

Price stayed in the 15-30 Euro ($19.5 – 39.0) a tonne range for about 12 months

– higher than most expectations.

Bet against the pundits.

# (e) An important achievement of the EUETS was to keep it (relatively) simple

- No price caps
- Cap and trade
- Based on installations
- No need for permission to trade
- One gas initially ($CO_2$)

Sectors included are readily identifiable - power and heat (>20MW) – although some debate about what to include - and most heavy industry.

# Resist pressures from special interests to exempt

Camus: *We are all special cases.*

If an installation exempted, it would have to make ‘equivalent effort’ under a command and control or tax regime.

# (f) No Price Cap

Price Oscillations

Address the **root causes** of swings, including inadequate provision of demand supply data - currently annual in EU ETS

Propose that major emitters to report quarterly

Remove temporal constraints on banking and borrowing.

The EUETS did not provide for banking from the pilot phase (2005-07) to the second phase (2008-12).

# Key Price cap problem

Sets a boundary to the march of innovation.

If price cap is fixed at €25, and €30 ‘needed’ to induce carbon sequestration and storage – major losses incurred as coal fired plant loses out.

# (g) People love to trade and to gamble

Adam Smith

*Man is the only animal that makes bargains; one dog does not change bones with another dog.*

In EU ETS

rapid development of the futures market, with 7 brokers and 5 exchanges in operation, serving buyers and sellers at a variable cost of 0.01 to 0.05 Euro cents per tonne.

# (h) Reduction in emissions is quickly achieved.

In the first year of the pilot phase:

Reductions below the counterfactual of 3-5 per cent were achieved.

Management actions begin to give an immediate payoff

(i) The European horizon – 2005-2012 – is too short on its own to induce major new capital investment in carbon reduction and carbon-reducing innovation.

EU proposal set a mandatory reduction target of 20 per cent to be achieved by 2020.

(j) Ensure the integrity of the system – MRV

Enforcement is automatic, not dependent on unspecified civil and criminal penalties. Non-compliance is a lot more costly than going to the market

# (k) Informed, dedicated, well-resourced and focused organisation with the authority to drive the process.

European Commission – small team of economists, with full backing of Commission.

(k) (l) A key benefit of the European Scheme has been to animate greenhouse gas reducing projects in third countries

CDM market in China and India

Carbon exchange in Beijing?

## (m) Complement trading with other policies that drive the innovation impulse.

Immediate innovation dividend for carbon reducing technologies

Complement this demand side instrument with supply side R&D, fiscal and ‘learning by doing’ support.

(n) A scarcity price must emerge

Make sure that demand exceeds supply

(k (o) Coverage and Flexibility

Not all sectors need to be ‘covered’

N Expand coverage incrementally – air in EU ETS

# (p) A Half Loaf is Better than No Bread

The perfect can be the enemy of the good.

(q) There are tradeoffs between price effects, environmental effectiveness and equity

Issues of rent capture, regulation and equity need to be addressed – linked to free allocation

# (r) Dealing with new Entrants

Don’t give free allocation to new entrants

(s) Policy is a process

Each step on its own is insignificant, but builds for the next step…

# Conclusion

It is possible to get the 12 key players effectivly active in effective climate change strategy

But this will only happen is the emissions trading club is anchored by Europe, the US and Japan.

Who then stucture a set of carrot and stick measures to make membersship for the other 12 irrestible.

Happy Saint Patrick’s Day!