

**Timing and participation to ICA:
economic analysis**

Valentina Bosetti, Carlo Carraro and Massimo Tavoni

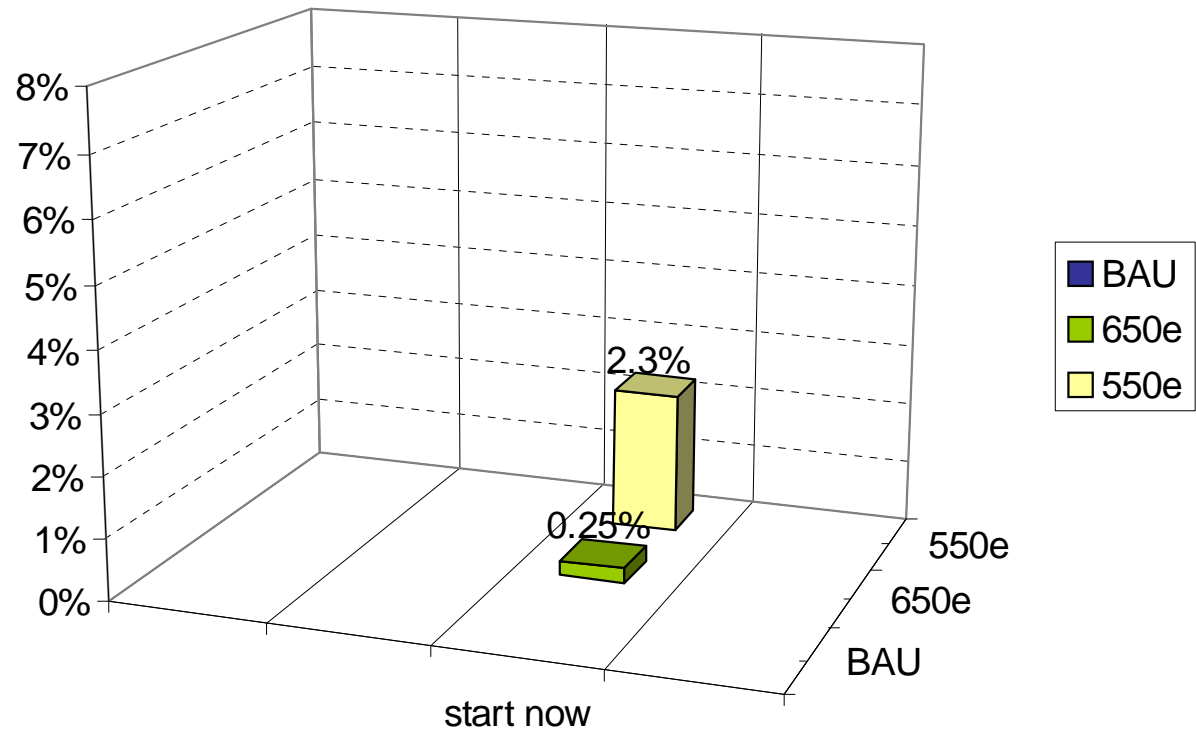


- » TIMING OF INTERNATIONAL AGREEMENT TO STABILIZE CLIMATE
- » RATE OF PARTECIPATION OF D.C.

Implications of moving away from perfect ICA (“when”, “where” flexibilities)
on economic policy costs

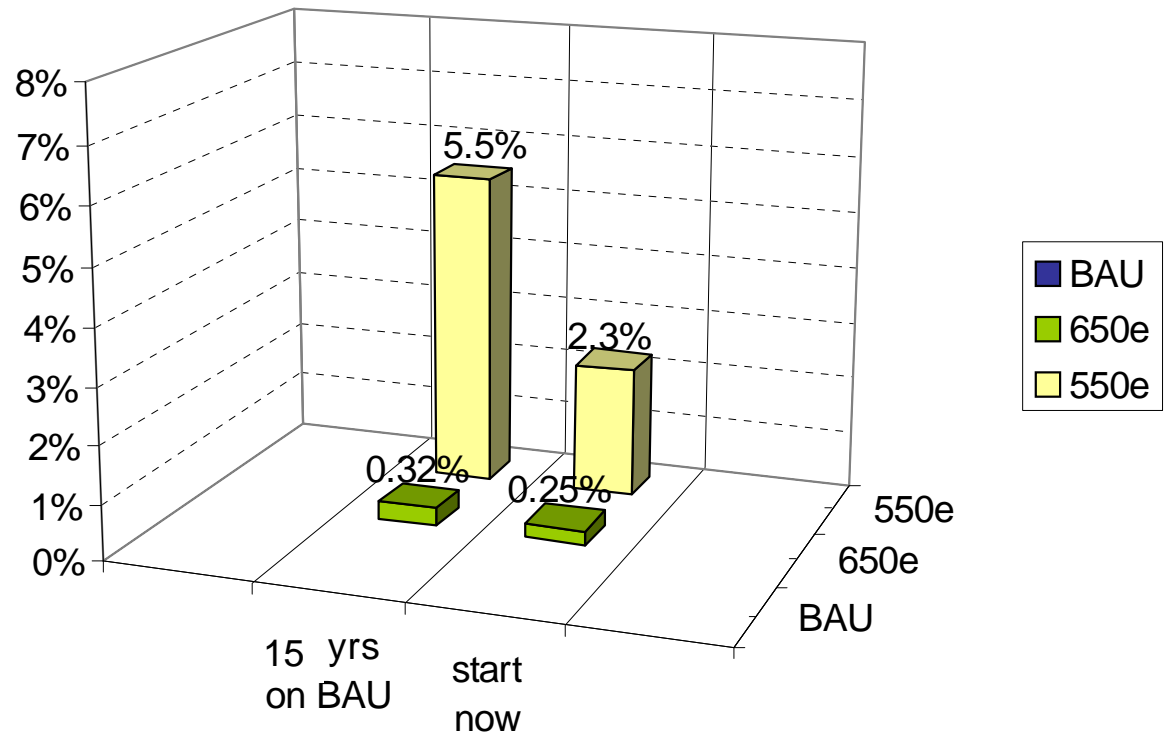
DELAYS OF A GLOBAL AGREEMENT

Economic costs of procrastination



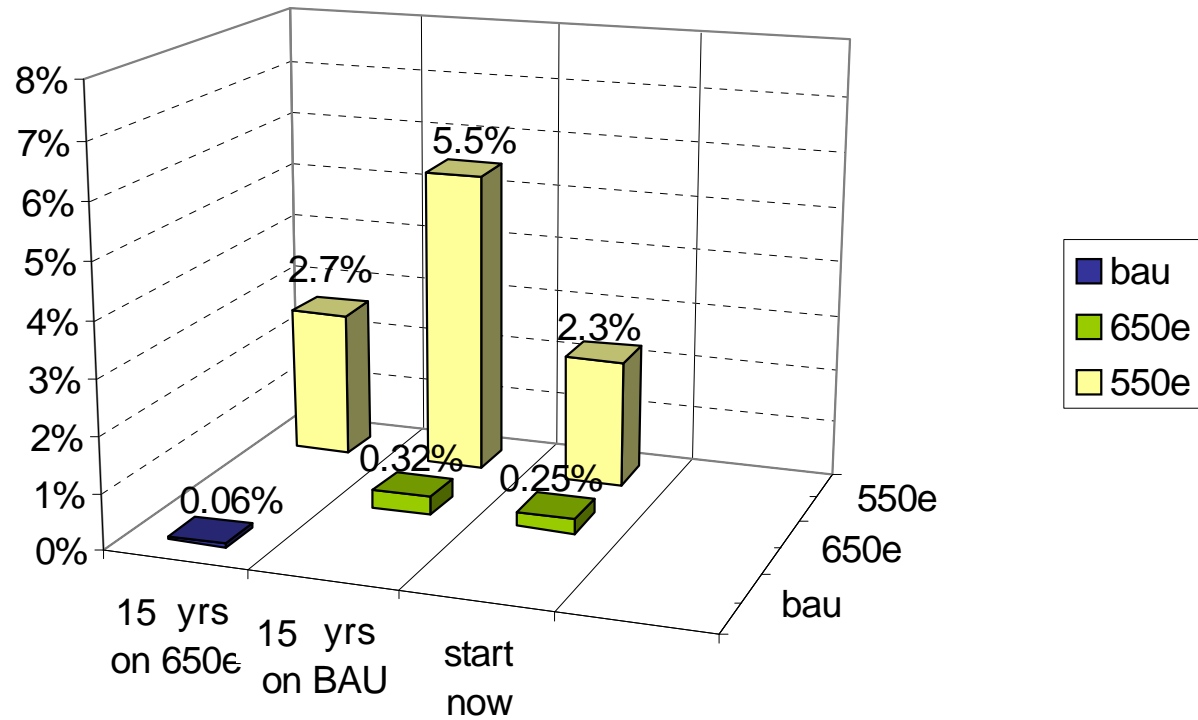
DELAYS OF A GLOBAL AGREEMENT

Economic costs of procrastination



DELAYS OF A GLOBAL AGREEMENT

Economic costs of procrastination



DELAYS OF DC PARTECIPATION

NPV GWP loss 2000-2100

PARTICIPATION RATE	WORLD
Immediate	2.3 %

DELAYS OF DC PARTECIPATION

NPV GWP loss 2000-2100

PARTICIPATION RATE	WORLD
Immediate (C&C)	2.3 %
NA1 30yrs delay	2.8-3.7 % (+11-25 USDTIn)

DELAYS OF DC PARTECIPATION

NPV GWP loss 2000-2100

PARTICIPATION RATE	WORLD
Immediate (C&C)	2.3 %
NA1 30yrs delay,	2.8-3.7 % (+11-25 USDTIn)
NA1 30yrs delay, carb mkt	2.3 %

DELAYS OF DC PARTECIPATION

NPV GWP loss 2000-2100

PARTICIPATION RATE	WORLD	A1	NA1
Immediate (C&C)	2.3 %	1.7 %	2.8 %
NA1 30yrs delay, no carb mkt	2.8-3.7 % (+11-25 USDTIn)	3.0-3.1 % (+13-14 USDTIn)	2.5-5.1 % (-1.6-+11 USDTIn)
NA1 30yrs delay, carb mkt	2.3 %	2.3 % (+3 USDTIn)	2.3 % (-3 USDTIn)

- » Timing of ICA is the most important determinant of policy costs. Intermediate (650e ppmv) strategy as an hedging strategy to timing uncertainty.
- » Late participation of DC entails economic penalty up to 10-25 TInUSD, but can be compensated by allowing participation to the carbon market.

www.feem-web.it/WITCH