



State of the Regions Report – 2008-09

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State of the Regions report, 2008-09

A report prepared for the Australian Local Government Association by National Economics.

1. CPRS impacts on electricity and gas prices

Graham Armstrong

2. Overview of SOR 2008-09

Peter Brain and Ian Manning

The impacts of carbon (CO₂e) pricing under CPRS on gas and electricity prices

- **Carbon (CO₂e) pricing will raise electricity and gas prices; levels depending on CPRS design.**
- **Increased prices will make energy efficiency improvement (EEI) more attractive.**
- **For example, a 5 year payback EEI investment may become a 4 year payback.**
- **Electricity prices, retail, have increased by about 20% over the last 3 years and there has not been an observable price response to EEIs.**
- **So why would carbon pricing, of a similar magnitude, have a greater impact?**



The impacts of carbon (CO₂e) pricing under CPRS on gas and electricity prices (continued)

- **With underlying (\$0/t CO₂e) price increases AND price increase due to an ETS, retail electricity and gas prices will rise significantly over the next 10 years.**
- **‘Likely’ national average residential and commercial sector percentage price increases to 2020 from 2008:**

	BAU (\$0/t CO₂e)	CPRS-5/Garnaut-10 (\$50/t CO₂e in 2020)
Electricity	15	40
Gas	15	25
		(includes BAU)



The impacts of carbon (CO₂e) pricing under CPRS on gas and electricity prices (continued)

- **State and Federal programs will help to offset these price increases for households, contributing to cost effective EEI:**
 - ❑ **Federal cash grants: the ‘best’ approach?**
 - ❑ **State rebates, CO₂e abatement incentives for insulating, air sealing, solar hot water, lighting, etc. as in VEET, REES, NEET;**
 - ❑ **MEPS.**
- **‘Rational’ economists are wrong in saying CO₂e pricing will eliminate the need for specific programs to encourage cost-effective EEI and fuel switching: IEA, National Economics, Vic. DPI analysis indicates complementary (to CPRS) programs are essential.**

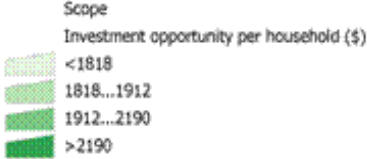
Local Government strategies in a CPRS world

- **In most gas regions switch to gas from electricity for water heating (5 star) and space heating (5 star).**
- **In non-gas regions switch to solar-electric water heating (subsidies improve economics), select highest efficiency equipment for space heating (reverse cycle/split systems very efficient).**
- **In all regions:**
 - ❑ **install best practice energy management systems;**
 - ❑ **select highest efficiency appliances and equipment;**
 - ❑ **encourage household and business EEI: insulation, lighting, manufacturing processes, etc;**
 - ❑ **transport equipment? Purchase highest efficiency life cycle cost-effective units and local government should take a role in road management.**
- **Thoroughly research availability/applicability of government programs.**

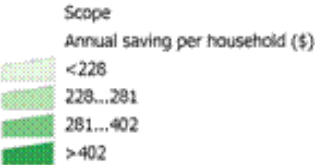
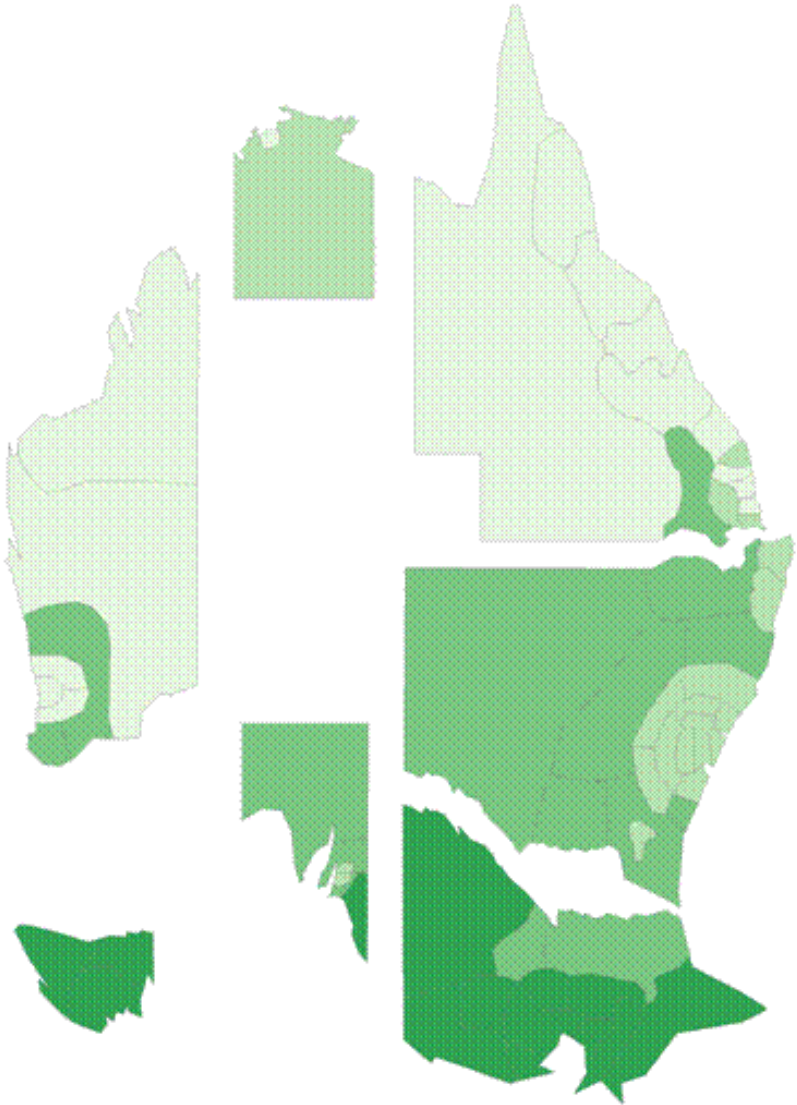
Overview of SOR 2008-09

Presented by Dr Ian Manning

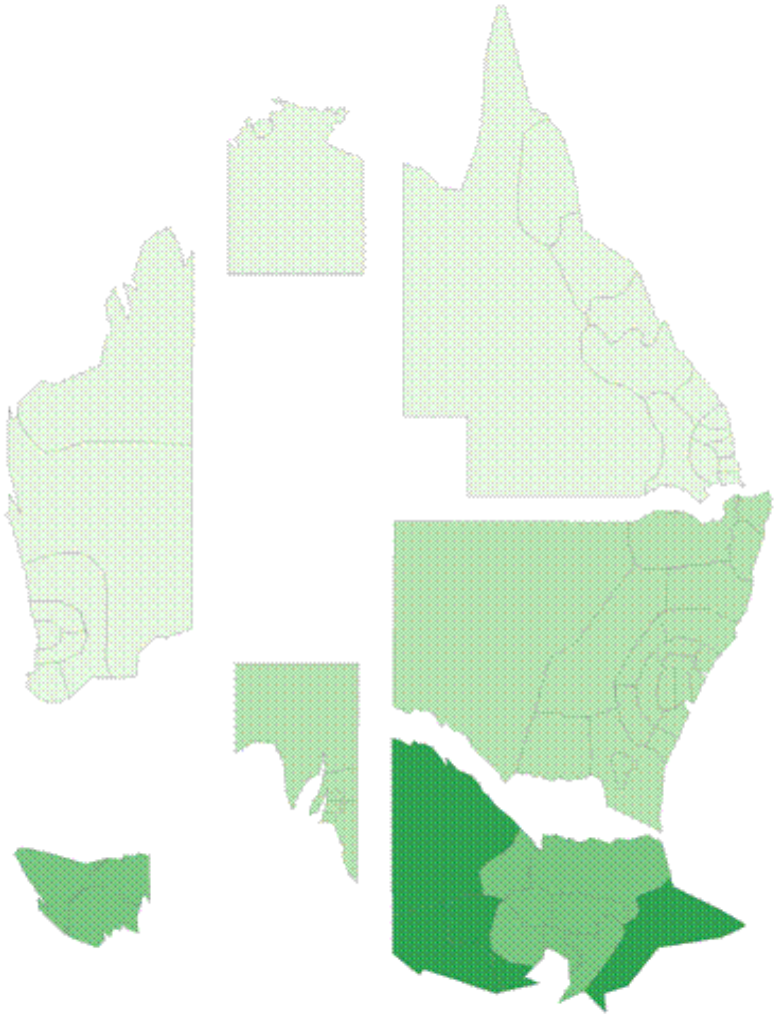
Investment opportunities per household



Annual saving per household



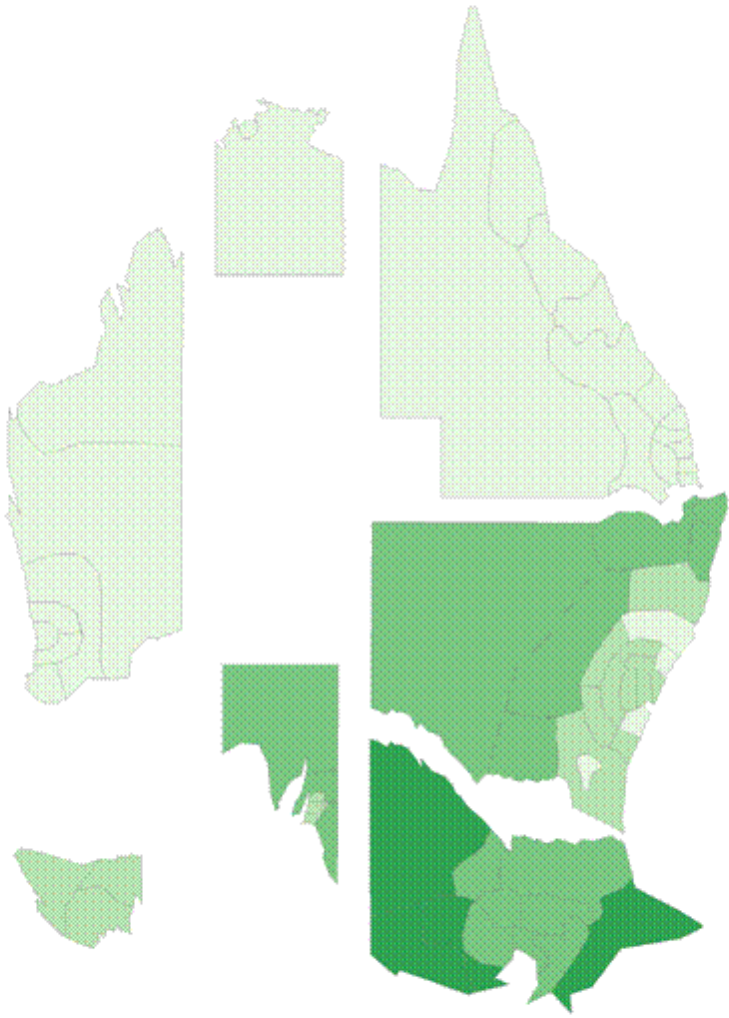
Adoption of energy saving measures – per cent of households – \$0/tonne



Adoption of energy-saving measures
% of households, \$0/tonne

<4
4...9
9...13
>13

Adoption of energy saving measures – per cent of households – \$80/tonne

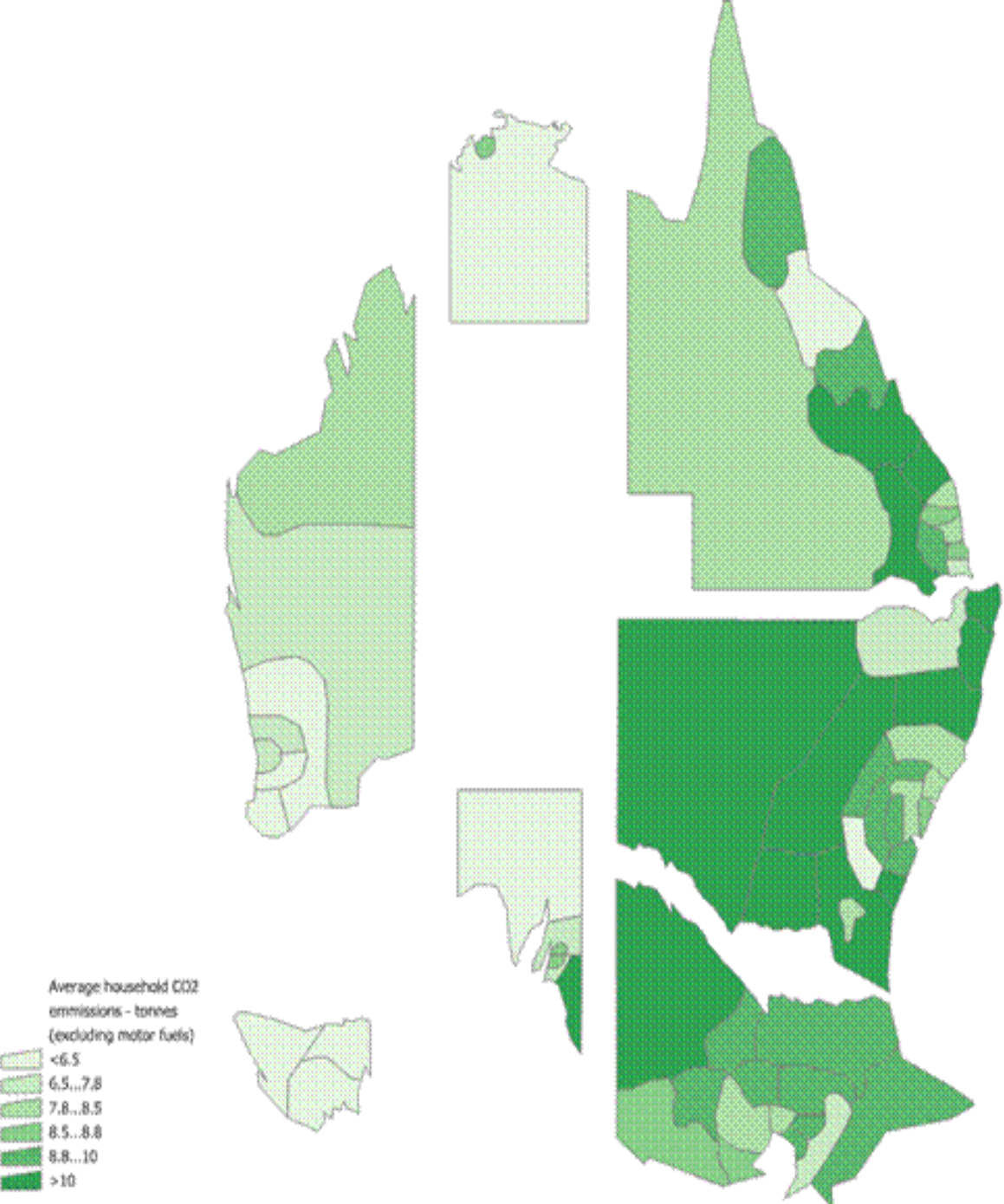


Adoption of energy-saving measures
% of households, \$80/tonne

<9
9...14
14...26
>26



Average household CO₂ emissions – tonnes (excluding motor fuels)



Overview of SOR 2008-09

Presented by Dr Peter Brain

Australian perennial two core problems:

- (i) ever increasing household debt; and**
- (ii) ever increasing international debt.**

Have now become binding because:

- (i) household debt saturation; and**
- (ii) finance sector debt saturation.**

And are complemented by the binding problem:

- (i) climate change.**

Implications:

Urgent steps required to prevent exchange rate-banking crisis (Iceland, Argentina, etc.).



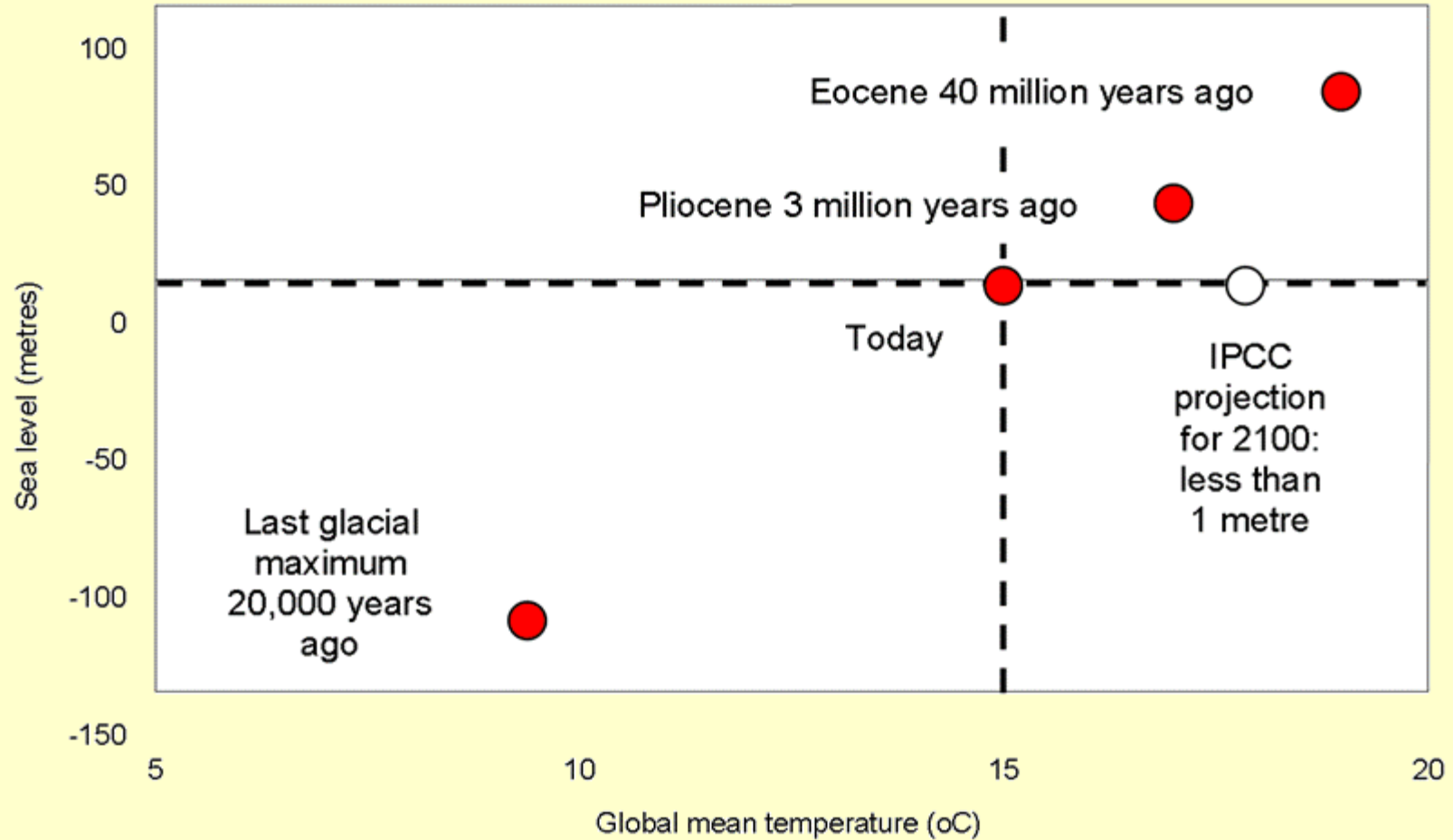
Unless something is done urgently, runaway climate change is the reality: the commencing dominance of slow positive feedback loops.

- 1. Predictions of end of late summer Arctic ice within 7 years – not 2100 as previously projected.**
- 2. Ice melts will result in carbon release from permafrost. Arctic permafrost carbon contains twice as much carbon as the atmosphere.**
- 3. Large methane releases observed in Siberia summer of 2008.**
- 4. Accelerated glacier melts will result in Pakistan, parts of India and China and parts of Latin America running out of water by 2050.**
- 5. Acidity of sea now reaching levels previously predicted by 2100.**
- 6. The Paleo-Climate record shows the current 387 ppm is too high.**

Runaway climate change will mean 5-8°C rise by 2100 and a world population significantly less than what it is now.



Global temperature and sea level



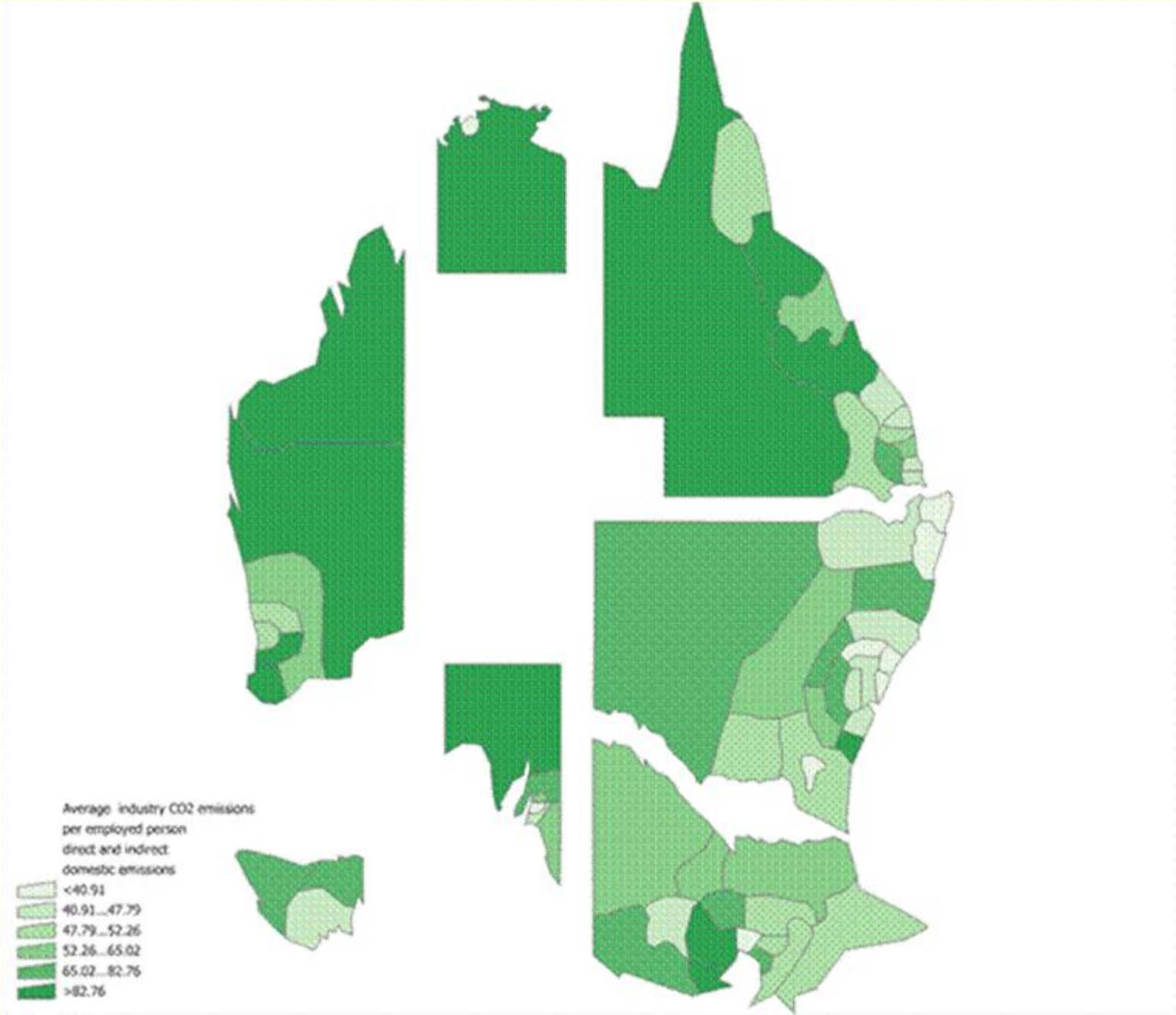
Source: David Spratt and Philip Sutton, "Climate Code Red: The Case for Emergency Action", Scribe Melbourne 2008, page 41.



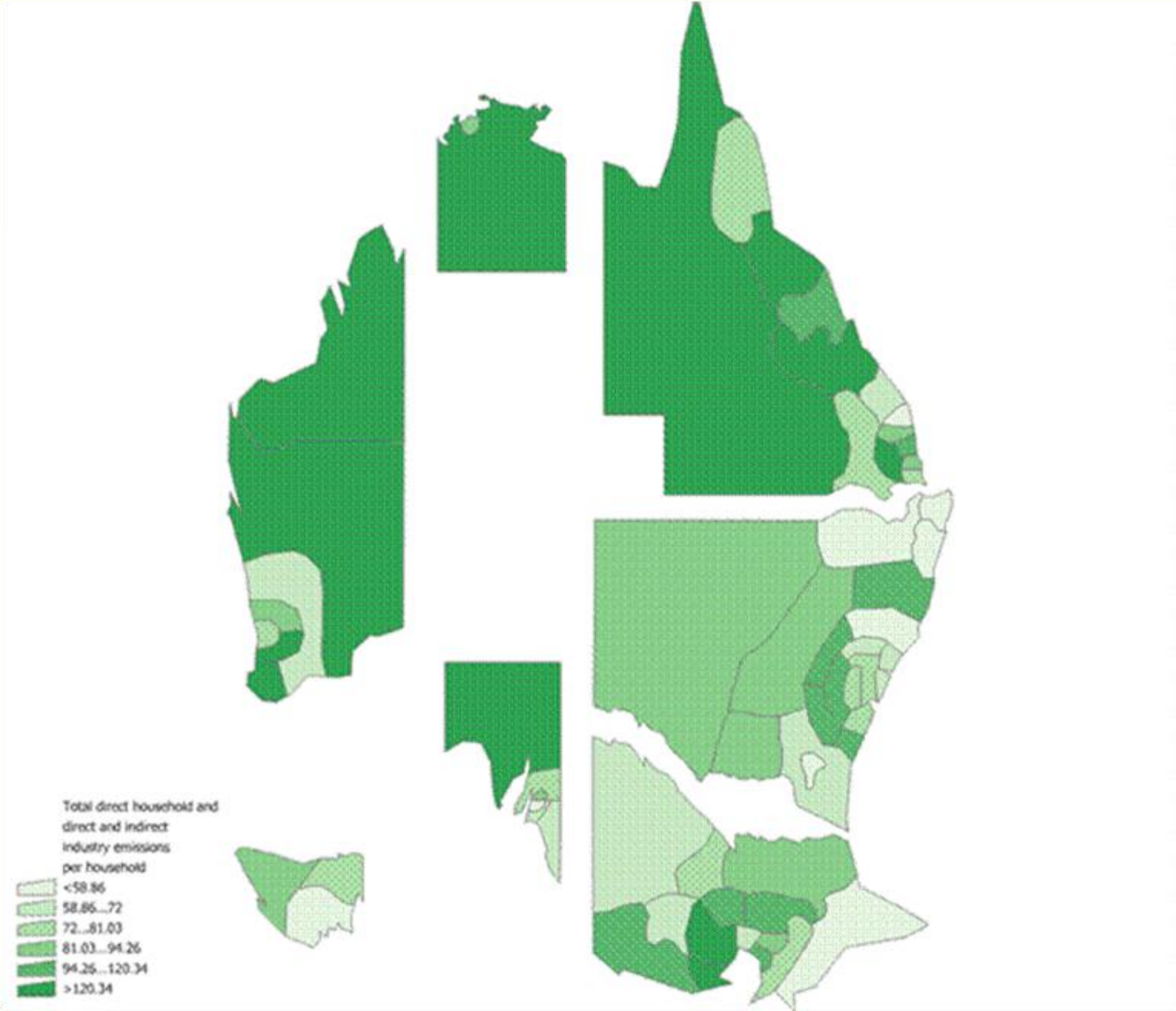
The implications of climate change

- 1. The IPCC projections of the damage from climate change will rapidly escalate from now on in.**
- 2. World will adopt 350 ppm target or below because the alternative (no hope, even if there is none) is unthinkable.**
- 3. For Australia severe loss of wealth in exposed regions as IPCC projections become more dire.**
- 4. For Australian trade and financial embargoes (official/non-official) unless rapid movement towards the vicinity of a world common CO₂ per capita target is made.**
- 5. For Australia large payments to developing countries to compensate for CO₂ reduction strategies.**

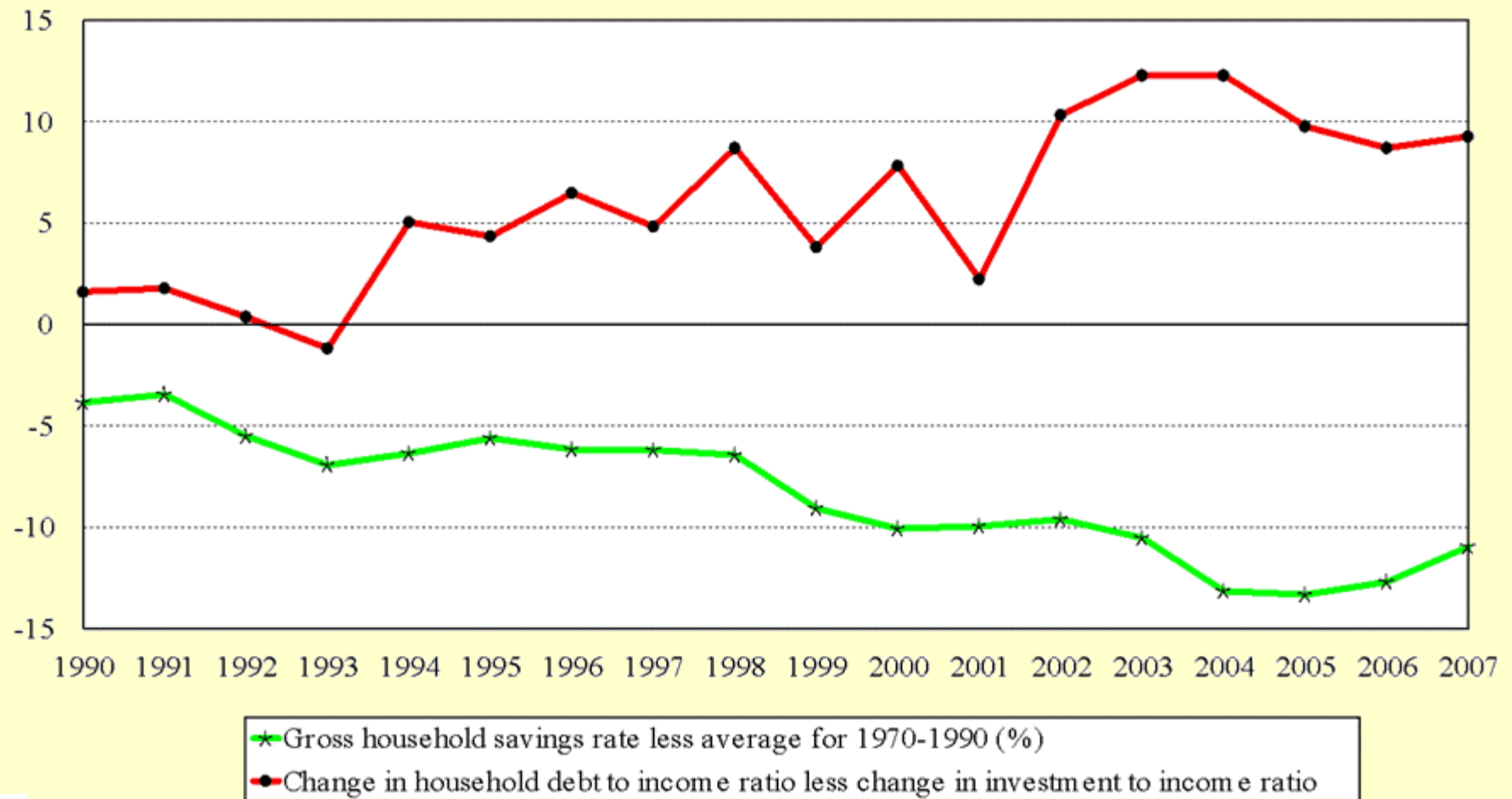
Average industry CO₂ emissions per employed person – direct and indirect domestic emissions



Total direct household and direct and indirect industry emissions per household



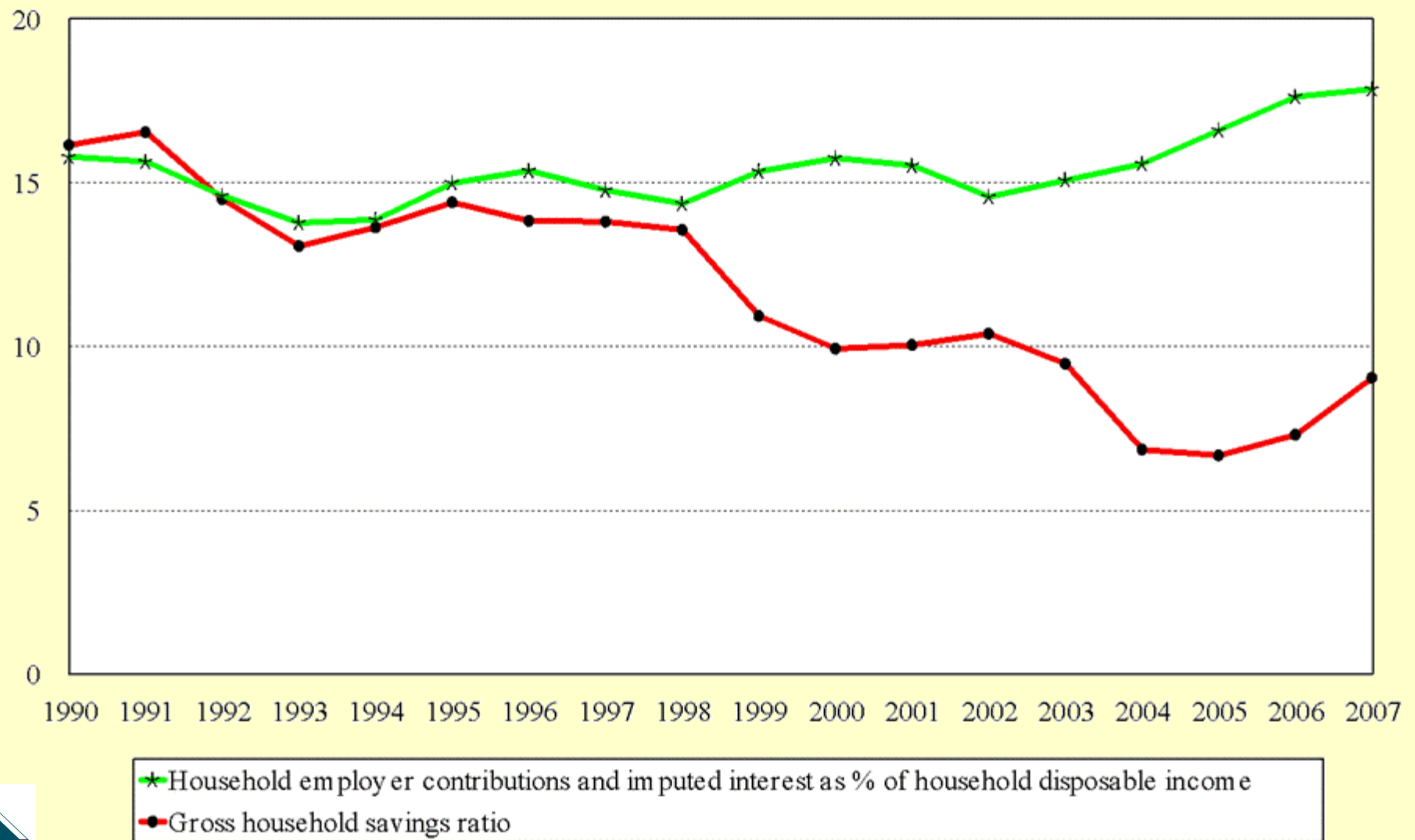
Ratio of gross savings to household disposable income less average gross household savings to income ratio



Source: ABS Australian National Accounts: Financial Accounts, Cat No. 5232 and Australian National Accounts, Cat No. 5204



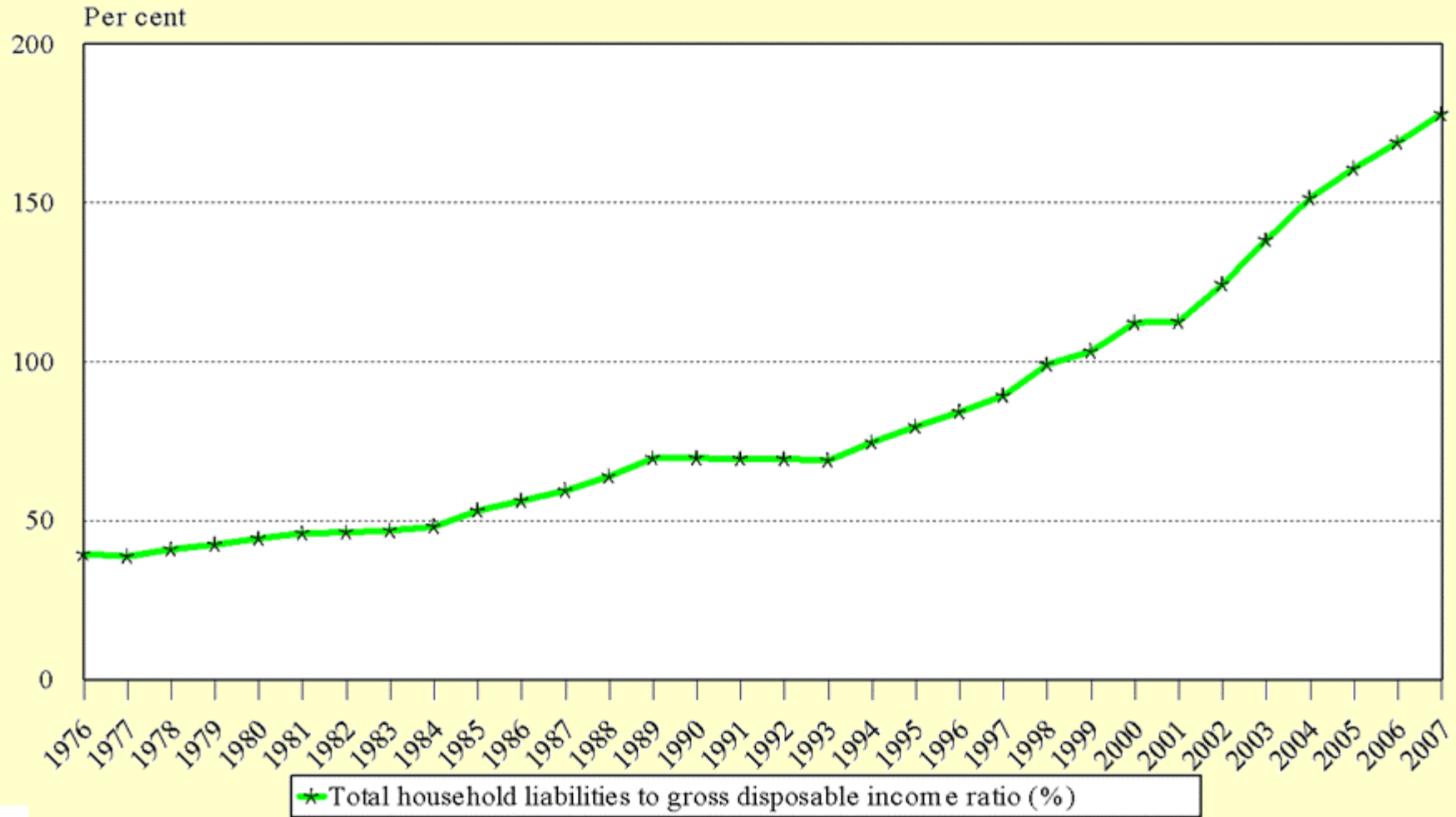
Household non-discretionary and total savings rate



Source: ABS Australian National Accounts, Cat. No. 5204.



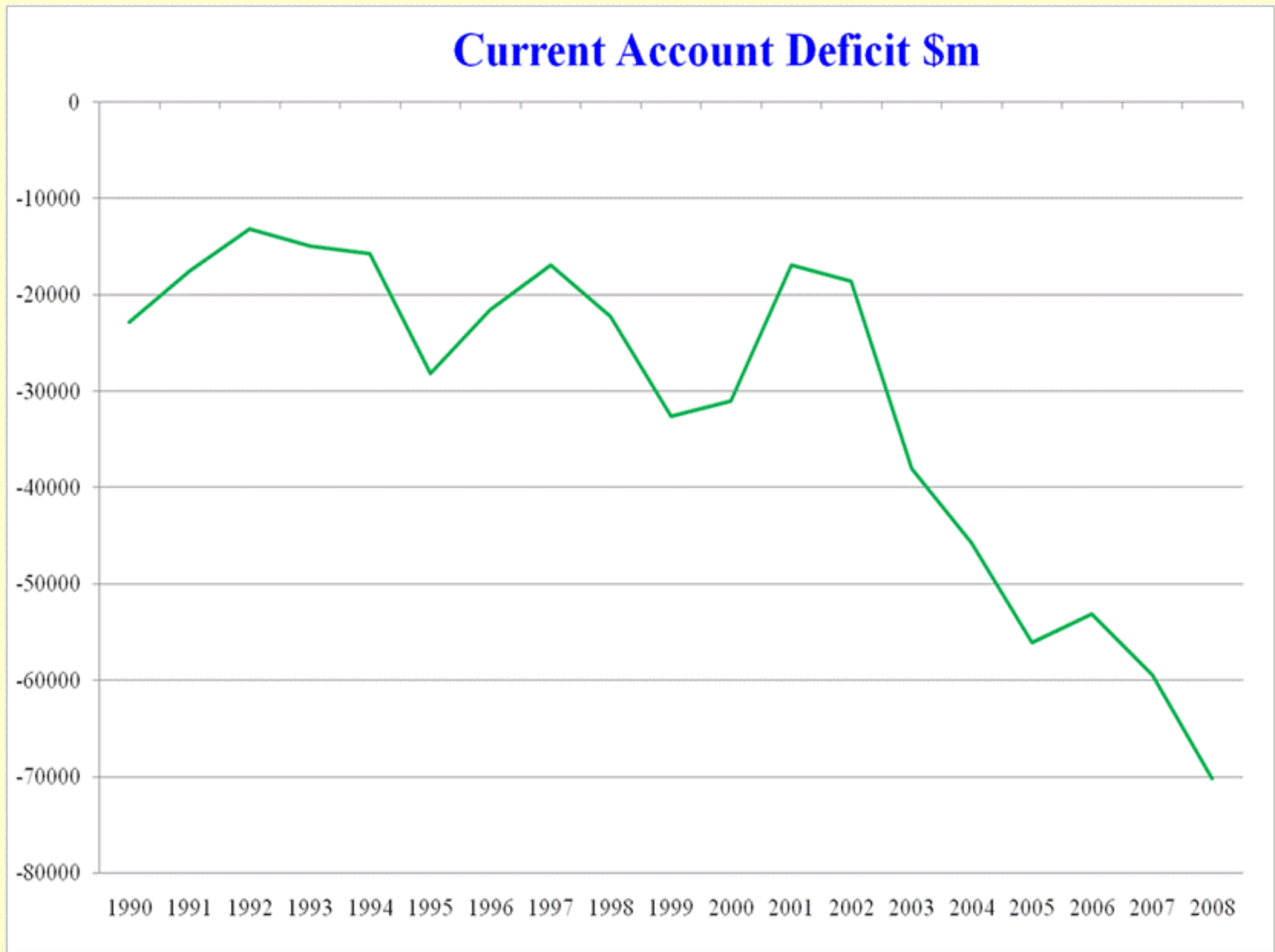
Household debt to income ratio



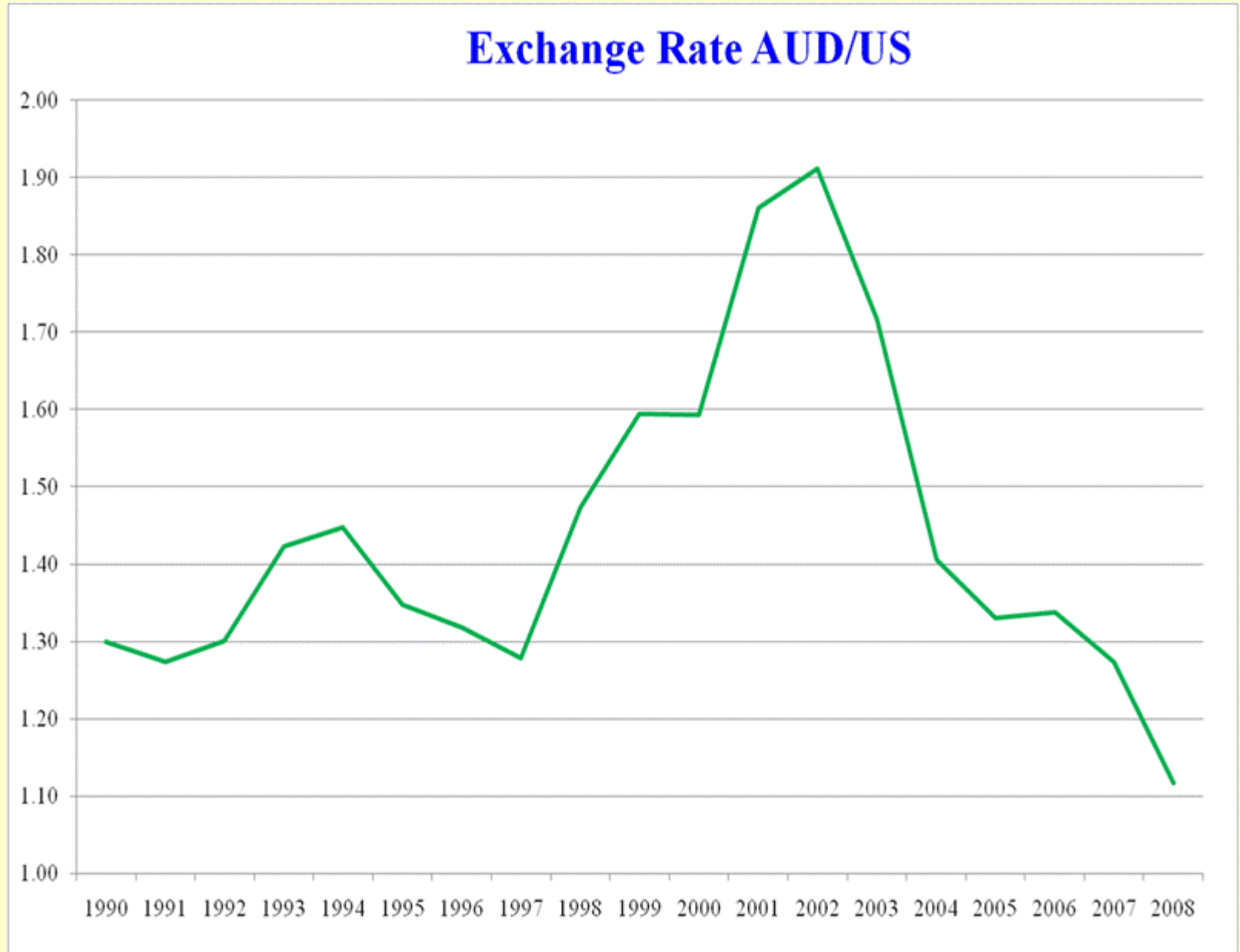
Source: ABS Australian National Accounts: Financial Accounts, Cat No. 5232 and Australian National Accounts, Cat. No. 5204.



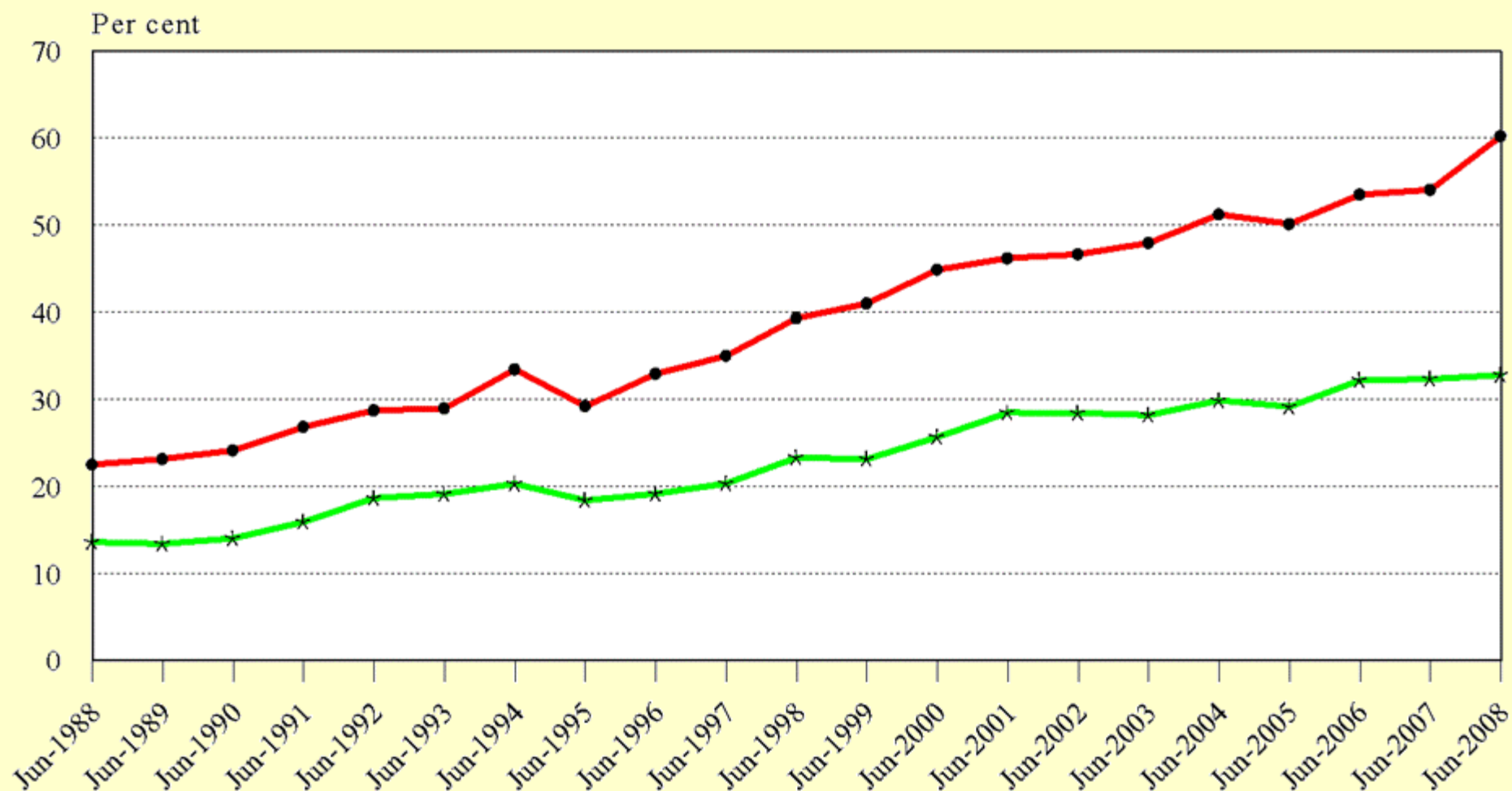
Current account deficit 1990-2007



Exchange rate AUD/US 1990-2007



The ticking time bomb in the Australian financial sector



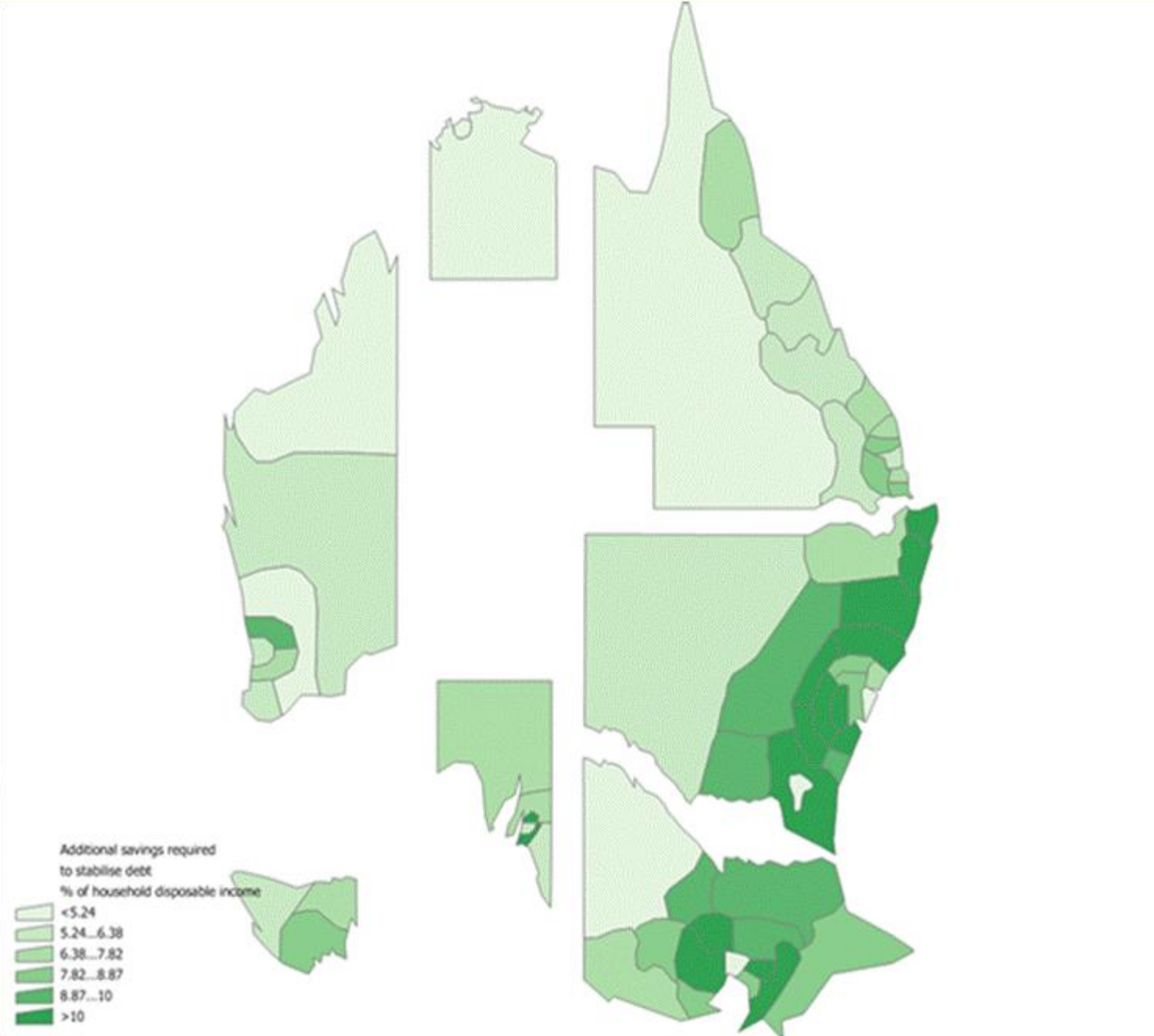
- * Share of banks' total non-equity foreign liabilities in total bank financial assets
- Share of banks' total non-equity foreign liabilities in total Australian non-equity financial liabilities



*If a major economic crisis is to be avoided,
the following will have to be achieved*

- 1. A quick reduction in the current account deficit.**
- 2. A substantial increase in the household savings ratio, to stabilise the household debt to income ratio.**
- 3. An increase in public sector net borrowing, to offset the increase in household saving and finance the continuing through reduced current account deficit.**
- 4. Reduction of the share of the banks' foreign liabilities as a share of total liabilities.**
- 5. Implementation of a robust greenhouse emissions abatement plan credible to overseas investors.**
- 6. An increase in both public and private investment in emissions abatement, in exporting industries and in import competing industries.**

Additional savings required to stabilise debt – % of household disposable income



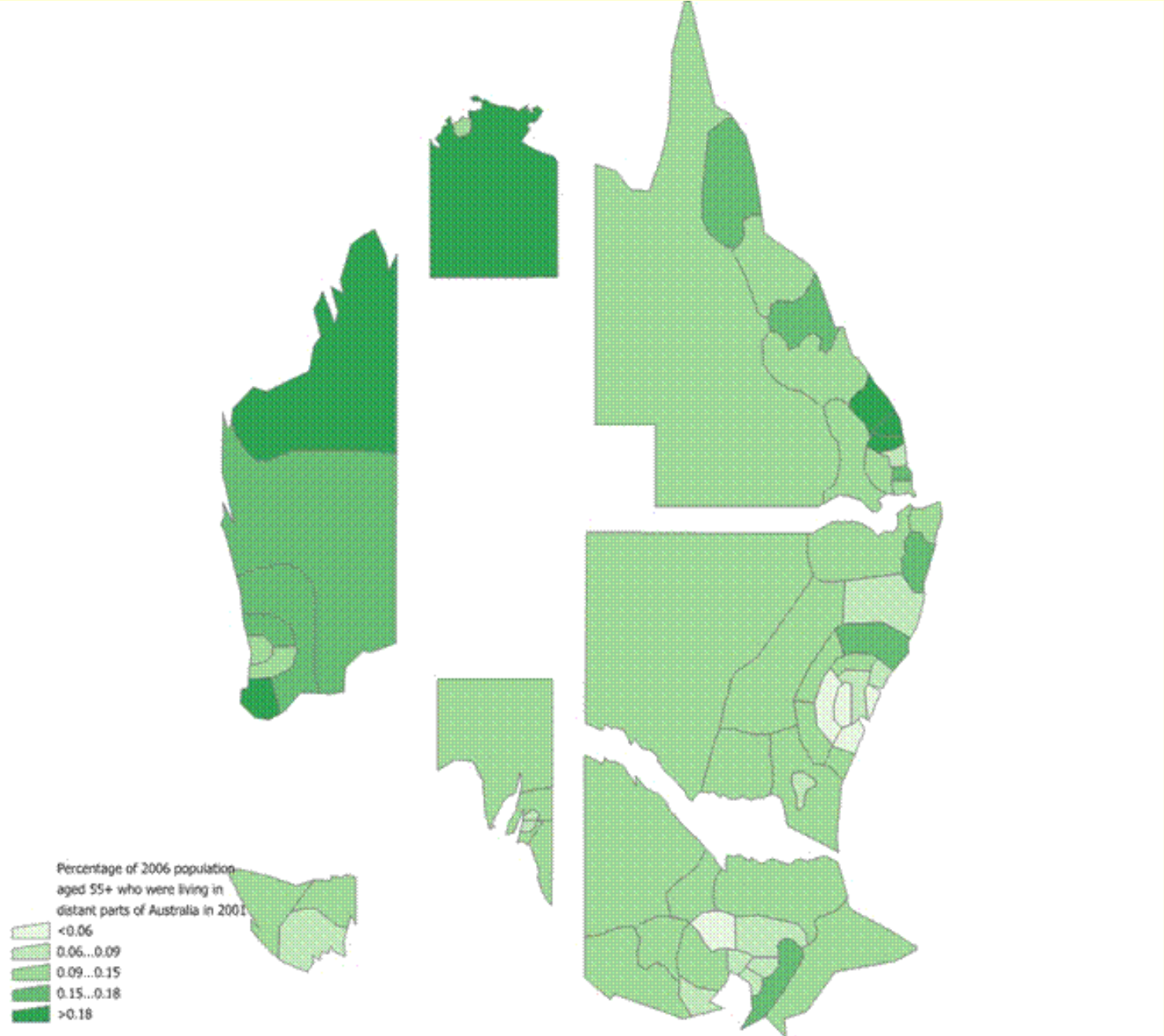
The economy: The longer run implications

- 1. Little growth in living standards over the next two decades (at best 0.5% per annum).**
- 2. The public sector balance sheet will be a core driver of growth as it was over 1940-1970.**
- 3. Australia's ability to export and import replace will determine overall growth outcomes.**
- 4. Australia has no hope of inducing business to invest for a 3% plus growth for employment stability unless the future is sustainable.**
- 5. Climate change policies (\$200 to \$300 billion plus) over next two decades could be the catalyst for sustainable growth as was WWII.**

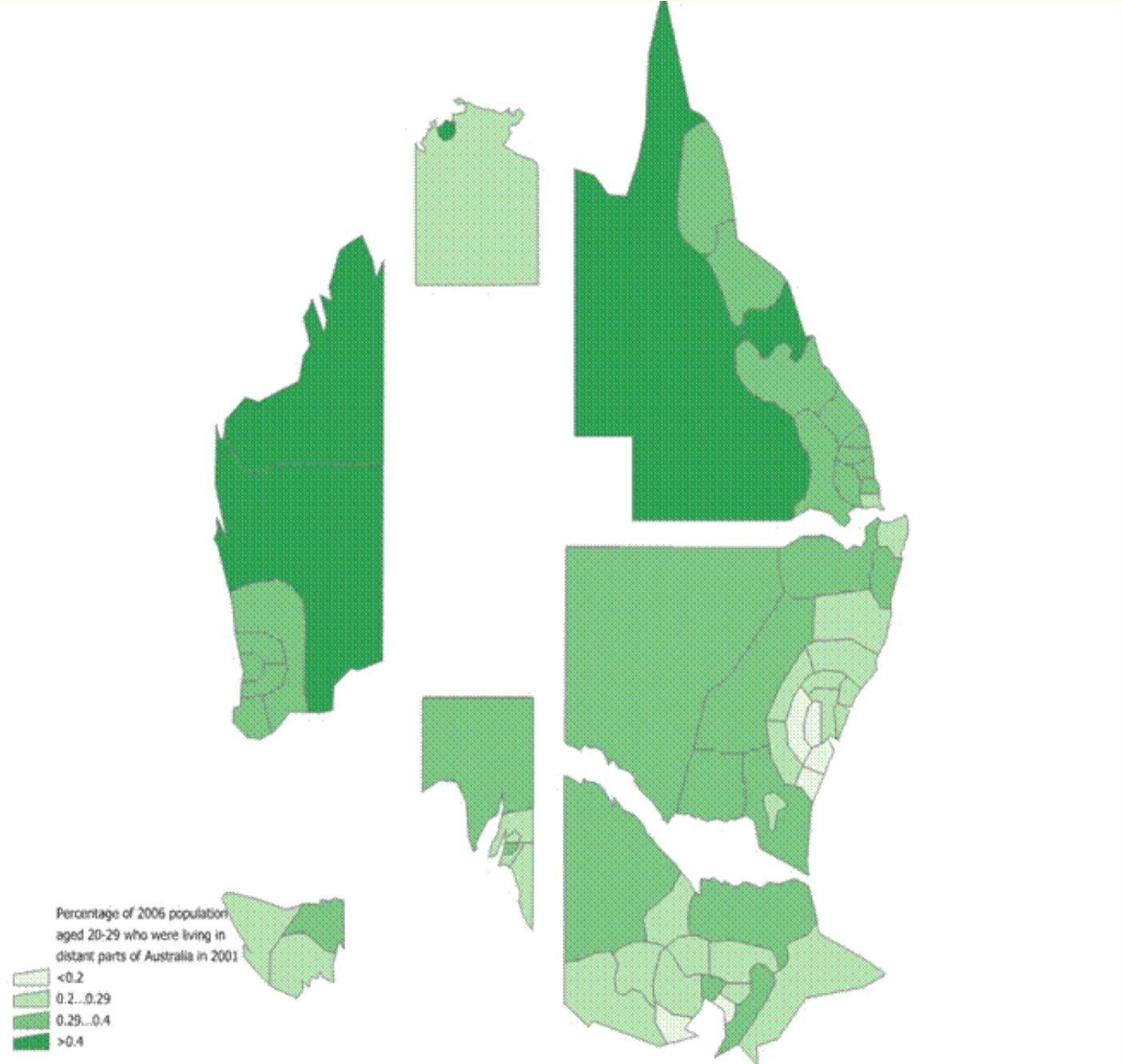
Migration

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Percentage of 2006 population aged 55+ who were living in distant parts of Australia in 2001



**Percentage
of 2006
population
aged 20-29
who were
living in
distant parts
of Australia
in 2001**



Percentage of 2006 population aged 20 to 29 who were overseas in 2001

