What makes for a healthy economy?

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What is the economy for?

The Scottish Government’s purpose is:

“To focus Government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth”.

Source: Scottish Government website, May 2012
(http://www.scotland.gov.uk/About/scotPerforms/purposes)
What is the economy for?

“Faster sustainable economic growth is the key which can unlock Scotland's full potential and is the avenue through which we can deliver a better, healthier and fairer society”.

Source: Scottish Government website, May 2012
(http://www.scotland.gov.uk/About/scotPerforms/purposes)
Questions to be addressed...

• What is the economy for?
• Is economic growth sustainable, and does it generate health and fairness?
• What makes for ‘healthy economics’?
• Explaining health trends in Scotland?
Is our economic growth sustainable?
Figure 1. Payments incurred by the NHS in Scotland under signed PFI contracts

Projections are at current prices.

Data provided by the Scottish Executive in response to two Freedom of Information requests. The first, showing unitary charges, was received May 2006, the second, showing capital expenditure, was received in November 2006.

Data for 2011 to 2035 is from the 2010-based National Population Projections. Data prior to this is from the NRS mid-year population estimates.
Scotland’s population - 2005

Data for 2011 to 2035 is from the 2010-based National Population Projections. Data prior to this is from the NRS mid-year population estimates.
Scotland’s population - 2035 (projected)

Data for 2011 to 2035 is from the 2010-based National Population Projections. Data prior to this is from the NRS mid-year population estimates.
Greenhouse gas emission trends in Scotland

Source: Scottish Government website, May 2012
(http://www.scotland.gov.uk/About/scotPerforms/purposes/sustainability#a2).
Carbon embedded in UK imports

Carbon embedded in UK exports

‘Missing’ carbon from official UK data

So, is our economy sustainable?

- Financial debts
- Demographic change
- Carbon emissions and importing
- Oil dependency and increasing scarcity

- ... no, radical change is required
- ... and an opportunity to create a healthier economic system
Does economic growth create fairness and health?
At an individual level

Health is known to improved by:

• Good jobs
• Increased income and living standards
• Greater access to many good and services
• Being near the top of a hierarchy

Sources:

At society level:

- Economic growth associated with vast declines in overall mortality

But:

- Often associated with rising health and income inequalities
- Rise in some specific causes of death
- Some examples of nations which have created health by changing their economy rather than growing their economy
Case study – Russian Federation and Cuba


Source: Borowy I. Similar but different: Health and economic crisis in 1990s Cuba and Russia. Social Science & Medicine 2011; 72 :1489-1498
Case study – Russian Federation and Cuba

Life expectancy trends in Cuba and Russia

Source: Borowy I. Similar but different: Health and economic crisis in 1990s Cuba and Russia. Social Science & Medicine 2011; 72 :1489-1498
Case study – Russian Federation and Cuba

Mortality due to cardiovascular disease

Source: Borowy I. Similar but different: Health and economic crisis in 1990s Cuba and Russia. Social Science & Medicine 2011; 72 :1489-1498
Case study – Russian Federation and Cuba

Mortality rate attributed to diabetes

Source: Borowy I. Similar but different: Health and economic crisis in 1990s Cuba and Russia. Social Science & Medicine 2011; 72 :1489-1498
Case study – Russian Federation and Cuba

“economic crises ... need not turn into crises of public health”

“long-term policies that prioritize public health, societal values that encourage interpersonal cooperation and support, a general commitment to egalitarianism that provides broad access to food, education and health care and that facilitates an even distribution of the burdens of economic shock, are all beneficial in times of economic crisis”

Source: Borowy I. Similar but different: Health and economic crisis in 1990s Cuba and Russia. Social Science & Medicine 2011; 72 :1489-1498
Case study – European deindustrialised areas
Female life expectancy at birth, West of Scotland and ten selected regions
Calculated from original source mortality and population data - see Appendix 4 of report for details

Explaining the Scottish health trends
Male life expectancy in available high income nations

Data extracted from the Human Mortality Database for: Australia, Austria, Belgium, Canada, Chile, Denmark, England & Wales, Finland, France, Germany, Ireland, Iceland, Israel, Italy, Japan, Luxembourg, Netherlands, New Zealand, Northern Ireland, Norway, Portugal, Scotland, Spain, Sweden, Switzerland, Taiwan & USA.
Higher overall mortality than comparable nations

Data extracted from the Human Mortality Database for: Australia, Austria, Belgium, Canada, Chile, Denmark, England & Wales, Finland, France, Germany, Ireland, Iceland, Israel, Italy, Japan, Luxembourg, Netherlands, New Zealand, Northern Ireland, Norway, Portugal, Spain, Sweden, Switzerland, Taiwan & West Germany.
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Figure 1

Trends in Mortality
The Big 3 Killers
Mortality Rates for the under 75s 1995-2006
(Rate per 100,000; Age standardised to the European Population)

Source: Scottish CMO report 2009
Mortality due to liver cirrhosis

BMI distribution of adults in NHS GGC

Source: adapted from the Scottish Health Survey
BMI distribution of adults in NHS GGC

Source: adapted from the Scottish Health Survey
BMI distribution of adults in NHS GGC

Source: adapted from the Scottish Health Survey
BMI distribution of adults in NHS GGC

Source: adapted from the Scottish Health Survey
A Education, Men

Source: Mackenbach 2008 and Popham 2010
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Summary: the Scottish mortality phenomena

1. Scottish mortality is around European median until 1950 then diverges
2. Scottish mortality pattern changes and diverges again around 1980
3. Deprivation explains less of the higher mortality in Scotland and Glasgow from 1981 onwards (the Scottish/Glasgow Effect)
4. Scottish health inequalities are wider than the rest of western Europe
Hypotheses to explain the Scottish mortality phenomena
1. Poverty and material deprivation
2. Migration
3. Genetic vulnerability
4. Health behaviours
5. Different culture of substance misuse
6. Different individual values (time, aspiration)
7. Family, gender or parenting differences
8. Health service supply or demand
9. Greater inequalities
10. Greater concentration of deprivation
11. Deindustrialisation
12. Sectarianism
13. Different culture (boundlessness, alienation)
14. Lower social capital
15. Culture of limited social mobility
16. Political attack
17. Climate (sunlight, cold weather)

1. Poverty and material deprivation

- Relevant to earlier divergence and ‘Scottish/Glasgow Effect’
- Absence of evidence for earlier period
- Carstairs has become dated
- Glasgow, Liverpool & Manchester

4. Health behaviours

- Alcohol – low mortality rates until around 1990
- Tobacco – prevalence of use and tobacco-related deaths high but cannot explain excess mortality
- Illicit drugs – rapid rise in deaths during 1980s
- Physical activity – lack of evidence
- Diet – self-reported diet does not explain differences
- None completely ‘explain’ the higher mortality but some reliant on survey data
- Worse health behaviours require further explanation – ‘causes of the causes’

For example, see:


11. Deindustrialisation

- Profound deindustrialisation was a cause
- Scotland (& Glasgow/West of Scotland) has higher mortality than comparable deindustrialised areas across northern Europe, despite lower poverty levels and lower unemployment
- But West of Scotland did lose greatest number of industrial jobs as a proportion of total employment
- Temporal and geographical relationship between deindustrialisation and mortality

Source:
16. Political attack

• “The passage of 30 years does not alter the fact that a great many people were hurt, and hurt very badly, because of Margaret Thatcher. ... she willed an economic catastrophe. A large part of a generation never recovered. Some sickened; some died too soon. It's true”. (Ian Bell, Herald)

• “The deep fried Mars Bars and Buckfast wine are a symptom, not the cause. The communities that gave meaning to the lives of hundreds of thousands of working-class Scots disintegrated” (Iain MacWhirter, 2009).

• “…a war without bullets…” (Cathy McCormack)
16. Political attack

- Was the UK exposed to a form of neoliberalism not seen elsewhere; and was Scotland more vulnerable to it, targeted or have a particular reaction?
- Deindustrialisation managed and mitigated in other countries
- Parallels with transitions in Eastern Europe and USA
- Accommodation in Scotland not seen in England
- Linked to alienation, disempowerment and democratic deficit
- Timing and plausibility rate highly

Sources:
17. Climate

- Sunlight and a deficit in vitamin D
- Vitamin D gradient in blood samples between Scotland and the rest of the UK
- No coherence with the cause-specific mortalities since 1980 nor clear evidence of temporal changes
- Could dietary change or housing explain trends?
- Potential for other mechanisms (e.g. Seasonal Affective Disorder)?

See, for example:


Number of Bradford-Hill criteria met by each hypothesis for the later divergence and Scottish/Glasgow Effect

- Political attack
- Health behaviours
- Greater inequalities
- Artefact
- Lower social capital
- Deindustrialisation
- Deprivation concentration
- Different individual values (time, aspiration)
- Sectarianism
- Migration
- Family and gender differences
- Genetic differences
- Different culture of substance misuse
- Different culture (boundlessness, alienation)
- Climatic differences
- Culture of limited social mobility
- Health service supply and demand

Legend:
- Red: Meets criteria
- Blue: Does not meet criteria
Explaining the Scottish health patterns:

- No single ‘cause’ is likely to explain the mortality phenomena
- Alcohol, diet, drugs, tobacco etc. are all necessary explanations, but are not sufficient
- Politics of the 1980s linked to ensuing alienation, disempowerment and democratic deficit are likely to be important in explaining the recent Scottish trends

Sources:

Conclusions

- ‘Sustainable economic growth’ is a key aim, but we are not close to this
- Scotland has benefited and suffered from different models of growth over time
- Health and fairness need to be built into the economic model, they do not automatically occur
- Urgent need to debate how to create a healthier economics in Scotland
Thank you for listening
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