

# The Political Economy of Data

Tim Besley

Kuwait Professor of Economics and Political Science, LSE

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'There is nothing a politician likes so little as to be well-informed; it makes decision-making so complex and difficult.'

John Maynard Keynes

## Motivation

- The collection and processing of data is a key function of the modern state.
  - But equally private provision and dissemination of information remains important.
- With the drive towards evidence based policy, the quality and the timeliness of data is of the essence in making economic policy.
- Economists have spent little time thinking about where data come from and the role of the state in collecting it.
  - true to its literal meaning economists largely treat the data as given.

## Motivation (continued)

- But history and contemporary experience suggest that we cannot take the process of data collection for granted.
  - issues
    - \* accuracy
    - \* timeliness
    - \* content
    - \* unbiasedness

## This Lecture

- Will look at some broad principles that lie behind data collection (and processing)
- Will look at these issues from a political economy perspective
  - this will inform thinking about the institutional structures that support data provision.
- Will look at the issues in a UK context, but also apply these ideas to thinking about data collection around the world
  - particularly discuss some of the issues in the developing world.

- Will consider the role of pluralism and competition in the collection of data.

## UK History

- The UK has a long history of government data collection going back to the Domesday book
- There have since been a series of important landmarks in government data collection.
- This was ultimately brought together in the modern ONS and the Government Statistical Service.
- But even so there is still a good deal of fragmentation in the way data is collected and organized by government departments.

## Recent UK History

- From the early 1980s onwards, the prevailing force was the Rayner Doctrine
  - “Information should not be collected primarily for publication. It should be collected primarily because the Government needs it for its own business”

- This is at variance with Fundamental Principle I of the United Nations Fundamental Principles of National Statistics
  - *Official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honor citizens' entitlement to public information.*
- U.K. policy in recent years has increasingly been driven by this.

- The key turning point was the Open Government white paper of 1993
  - *Official statistics . . . are collected by government to inform debate, decision-making and research both within government and by the wider community. They provide an objective perspective of the changes taking place in national life and allow comparisons between periods of time and geographical areas.*

*Vital as this is, open access to official statistics provides the citizen with more than a picture of society. It offers a window on the work and performance of government itself, showing the scale of government activity in every area of public policy and allowing the impact of government policies and actions to be assessed.*

*Reliable social and economic statistics are fundamental to the Citizen's Charter and to open government. It is the responsibility of government to provide them and to maintain public confidence in them*

- And was cemented in the Framework for National Statistics of 2000
  - *The primary aim of National Statistics is to provide an accurate, up-to-date, comprehensive and meaningful picture of the economy and society, to support the formulation and monitoring of economic and social policies by government at all levels.*
- This has been institutionalized in a series of reforms that have created the current set-up.

## Global Experience

- There are attempts to set-up common international standards for data
- The U.N. has a set of Fundamental Principles which guide the collection of data and creation of statistics globally.

Principle 1. as above

Principle 2. *To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.*

Principle 3. *To facilitate a correct interpretation of the data, the statistical agencies are to present information according to scientific standards on the sources, methods and procedures of the statistics.*

Principle 4. *The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.*

Principle 5. *Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to*

*choose the source with regard to quality, timeliness, costs and the burden on respondents.*

*Principle 6. Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.*

*Principle 7. The laws, regulations and measures under which the statistical systems operate are to be made public.*

*Principle 8. Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.*

*Principle 9. The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all official levels.*

Principle 10. *Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.*

- However, the experience is still heterogeneous.
- It is a particular issue in many countries where economic management is severely inhibited by data availability and quality
- Often these are due to political as much as economic factors

## Data as a public good

- There are significant public benefits to improving data as an input into economic decision making by government.
- It has one standard characteristic of a public good
  - it is non-depletable
- But whether it is excludable depends upon the policy and legal regime.
- To the extent that there is open access to data (non-excludability), then data is public good in the true sense.

## Logic of Public Goods

- The general view is that government is needed to provide public goods to ensure that there is full recognition of the benefits that can be generated.
  - Indeed, there are a wide variety of results in economics that argue that voluntary provision of pure public goods will lead to underprovision.
- Although there is a long-standing debate about exactly how government should be involved
  - subsidy of private providers
  - direct state provision

- And yet in many areas of public goods and services will still see a strong role for voluntary and private provision.
  - provision and collection of data is no exception.
    - \* Moreover, this is true where data is subsequently made publicly available.

## Public provision of data:

- Government has power to coerce
  - for example firms are mandated to comply with ONS requests
  - but this is a form of taxation, i.e. alternative would be to pay for participation
- Government can allocate tax finance to data collection.

## Public provision of data (cont)

- But recognizing the case for public provision does not mean that public provision works in practice.
- Moreover, there are a plethora of choices that have to be made about the structures in place for data collection
  - how centralized and standardized do we want data to be?
  - how many resources should be devoted to different kinds of data?
  - what are policies on open access and timing of data release?

## Public provision of data (cont)

- To understand these issues requires an understanding of the motives of government and the process of public decision making
  - the political economy of data collection.

## Political Economy: A brief digression

- It is now a mainstream topic within policy economics.
- There are many aspects to this, but I want emphasize one key debate on the character of government that plays in a key role in thinking about data collection.

## What is the character of government?

- Tradition 1: Government in the public interest
  - has an essentially benevolent view
  - has been powerful in economics in characterizing optimal policy.
- Tradition 2: Government as a private interest
  - emphasizes the abuse of coercive power and role of special interests in shaping policy.
  - has been powerful in shaping debates about deregulation and a more minimalist role for the state.

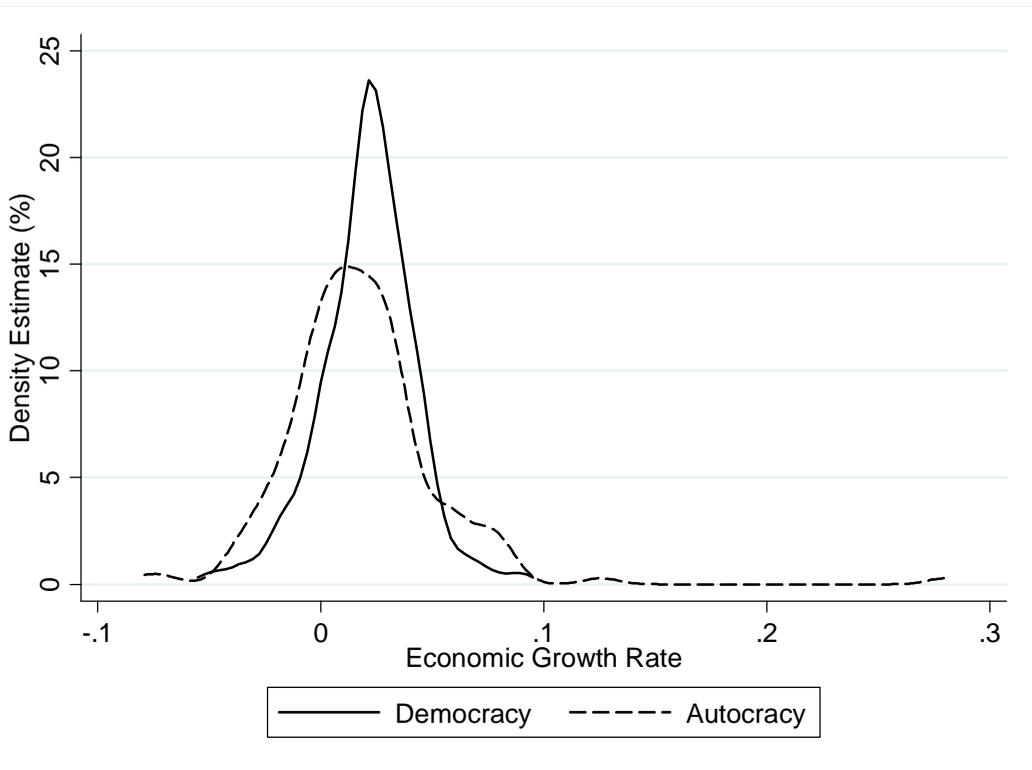
## What is the character of government?

- As with all extremes, the truth is somewhere in the middle.
- But this depends on the policy issue and the nature of institutional arrangements.
- Example: discrediting of programs of selective support for specific industries.

## How to achieve better government?

- Pay attention to incentives in government in both politics and bureaucracy
  - But also worry about selection
- But modern consensus is that institutional arrangements are key
  - where institutions mean the rules of the game.
    - \* although social norms matter too

- Although the literature has learned to emphasize that institutional details matter.
- For example, simplistic statements about the consequences of democracy don't seem to hold water empirically
  - at least as far as broad effects on economic performance are concerned.
  - although autocracy and measures of freedom are robustly correlated
  - there do seem to be effective autocracies and ineffective democracies



**Figure 1: Economic Growth Distributions among Democracies and Autocracies**

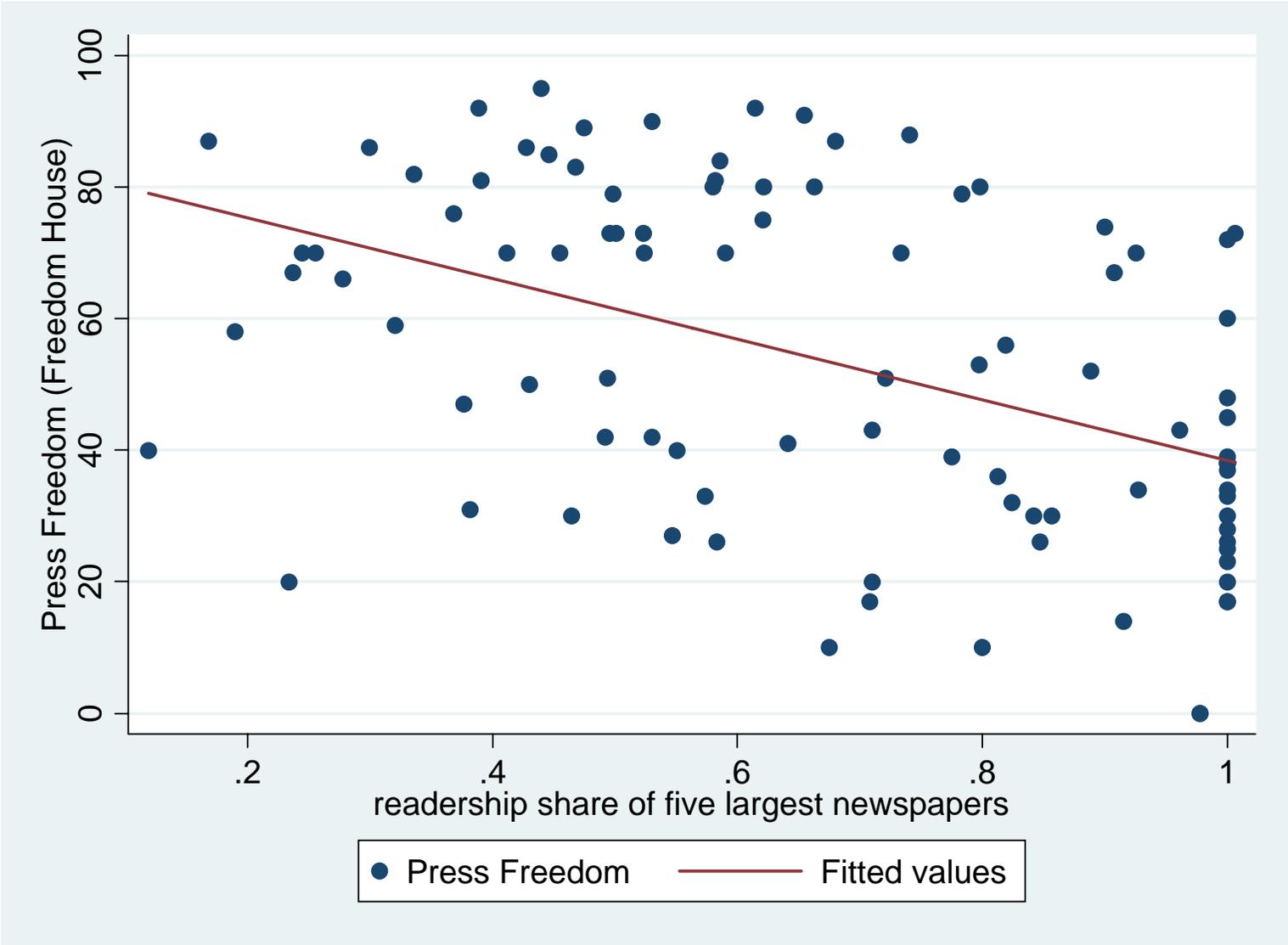
*Sources:* Penn World Table 6.2 and POLITY IV (version 2004)

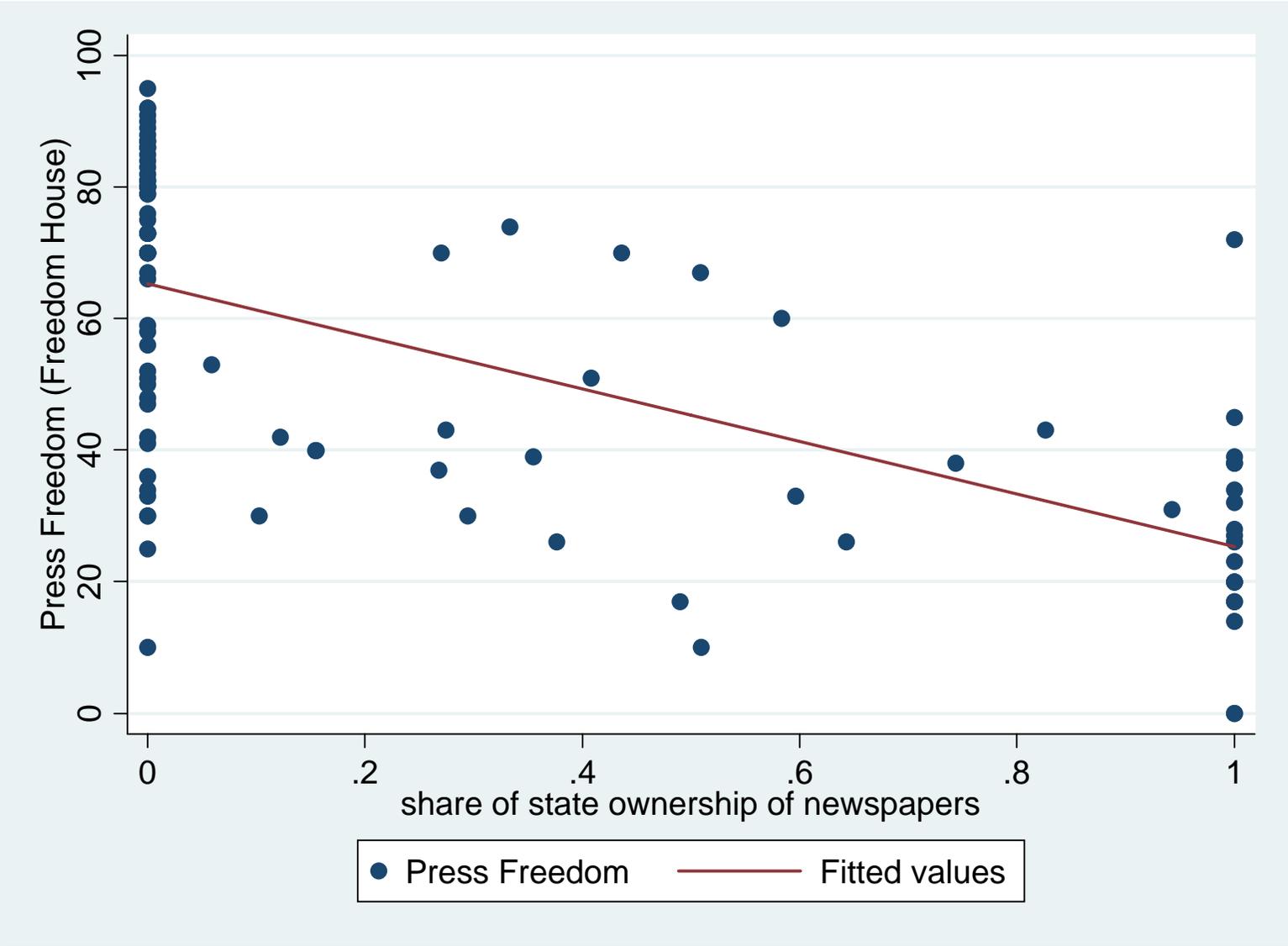
*Notes:* Plotted are the density functions estimated by using the Gaussian kernel and the bandwidth that minimizes the mean integrated squared error (the *kdensity* command in STATA with the *gaussian* option).

## The Political Economy of Data

- What makes this particularly interesting is the nature of data in the political and policy process
- Data is used to evaluate policy success by governments
  - and hence is unavoidably political.
  - information about government success/failure affect elections or political replacement more generally.

- Data is also processed through a nexus which includes information providers such as the media.
  - this is an area where state ownership and lack of pluralism are generally problematic.





## An Illustrative Example: The Political Economy of Data on Poverty

- There is a major debate on progress in global poverty.
- the Millennium Development Goals including include an aim to halve the proportion of people living below a dollar a day from around 30% of the World's population in 1990 to 15% by 2015 – a reduction in the absolute number of poor of around one billion.
- But monitoring progress towards such a goal requires data.
- The World Bank have a poverty monitoring web site that keeps track of the current state of poverty around the globe.

- It documents which countries have produced household surveys for this purpose.

- I decided to take a look at which countries have no data at all.
- The citizens of these countries have no hope of monitoring whether poverty is rising and falling.
- Even among countries that have published data, many are relying on old surveys.
- But for the purpose of the table that follows, I coded any country that produces poverty statistics reliable enough to appear as data on the World Bank poverty monitoring web site as a one and all other countries as a zero.

- My sample frame is all countries classified as developing on standard definitions and whose population exceeds 1 million.

## Hypotheses?

- Not producing data could be a function of low income per capita and hence governments finding it difficult to find public resources for purposes of collecting data.
- Not producing data is symptom of poor governance.
  - how measured?

- The picture that emerges is quite striking

<b>Variable</b>	<b>No Data</b>	<b>Some Data</b>	<b>Difference (Standard Error)</b>
Log Income per Capita	8.13	8.05	-0.09 (0.20)
Log Population	16.02	16.43	0.41 (0.25)
Corruption (ICRG: 6 point scale)	2.08	2.91	<b>0.82</b> <b>(0.20)</b>
Average Years in Democracy (since 1990) (Polity IV)	0.33	0.67	<b>0.34</b> <b>(0.08)</b>
Press Freedom (Freedom House: [0-1 scale])	0.68	0.50	<b>-0.18</b> <b>(0.04)</b>

Notes: Sample of 128 countries classified as developing with population larger than one million.

- There is a little doubt that, on this politically sensitive item, it is governance which explains where data is collected.
- One the whole, "better" governments, defined on fairly uncontroversial criteria, are more likely to produce data on poverty.

## Should Government Provision Create a Monopoly?

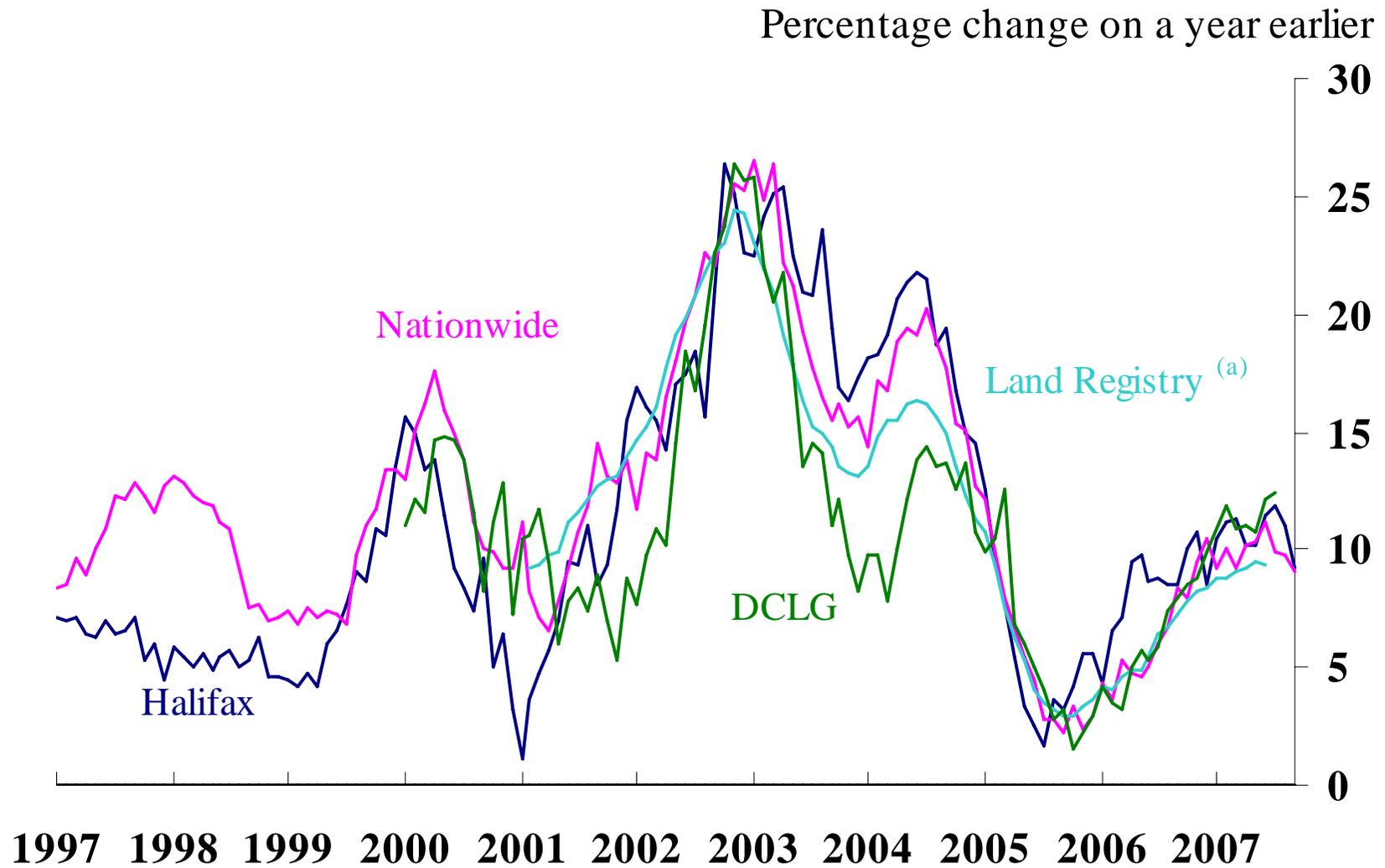
- One feature of the solution to public goods provision in traditional text book treatments is that government becomes the sole provider of the public good.
- The reason is that “optimal” provision by government leads to complete crowding out of private supply.
- This is the flip side of the classic free-rider problem.
  - people will tend to under-provide a resource where the benefits accrue partially to others.

- The coercive power to tax is what gives government an advantage.
  - free riding is a problem of voluntarism.
- Government on this view will monopolize data provision (at least data which is a public good, administrative or obtained by coercive means).
- This correctly explains why such a significant part of data provision is in the hands of government.

- But in many areas of public good provision, we see a mixed economy even where the state plays a dominant role.
  - One important example is funding research,
- But collection of data is no exception.

## The Prevalence of Private Data

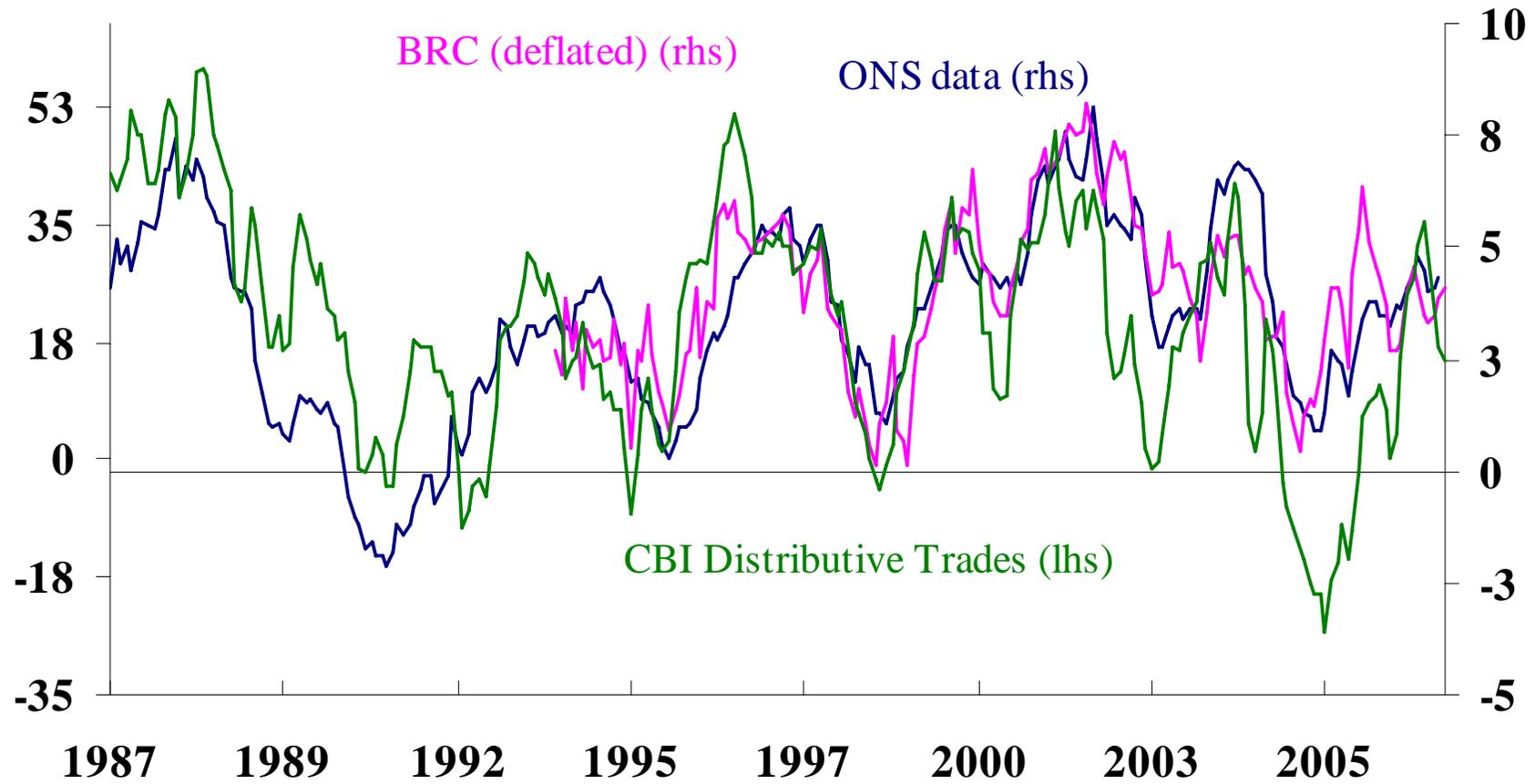
- In reality, there is a plethora of useful and important privately provided data which serves a role in policy and guiding public policy debate.
- Here are a couple of examples that are important:
  - data on house prices
  - data on retail sales



(a) Land Registry Index is lagged two months because of timing differences

Three-month average

Percentage changes 3 month on 12 month



- The UK is not unusual
- The following gives a list of countries for which there is a Purchasing Managers Index (PMI) available.

<b>Country</b>	<b>Manufacturing</b>	<b>Services</b>	<b>Construction</b>
	<b>PMI</b>	<b>PMI</b>	<b>PMI</b>
Austria	x	-	-
Brazil	x	-	-
China	x	-	-
Czech Republic	x	-	-
France	x	x	x
Germany	x	x	x
Greece	x	-	-
Hong Kong	x	x	-
India	x	-	-
Ireland	x	x	x
Italy	x	x	x
Japan	x	-	-
Netherlands	x	-	-
Poland	x	-	-
Russia	x	x	-
Spain	x	x	-
Turkey	x	-	-
United Kingdom	x	x	x

x Included - Not included

## Data as a Private Good

- It is easy to understand data collection for purely private purposes
  - marketing surveys
  - polling
- Such data are a private good and allowing the provider to keep the data secret creates an incentive to collect it.

## Private provision of Public Data

- Motives for private provision
  - influence
    - \* – private provider gets to design questions and report answers in preferred format.
  - social motives
  - quality/timeliness/gaps in government data

## Private Data as Social Capital?

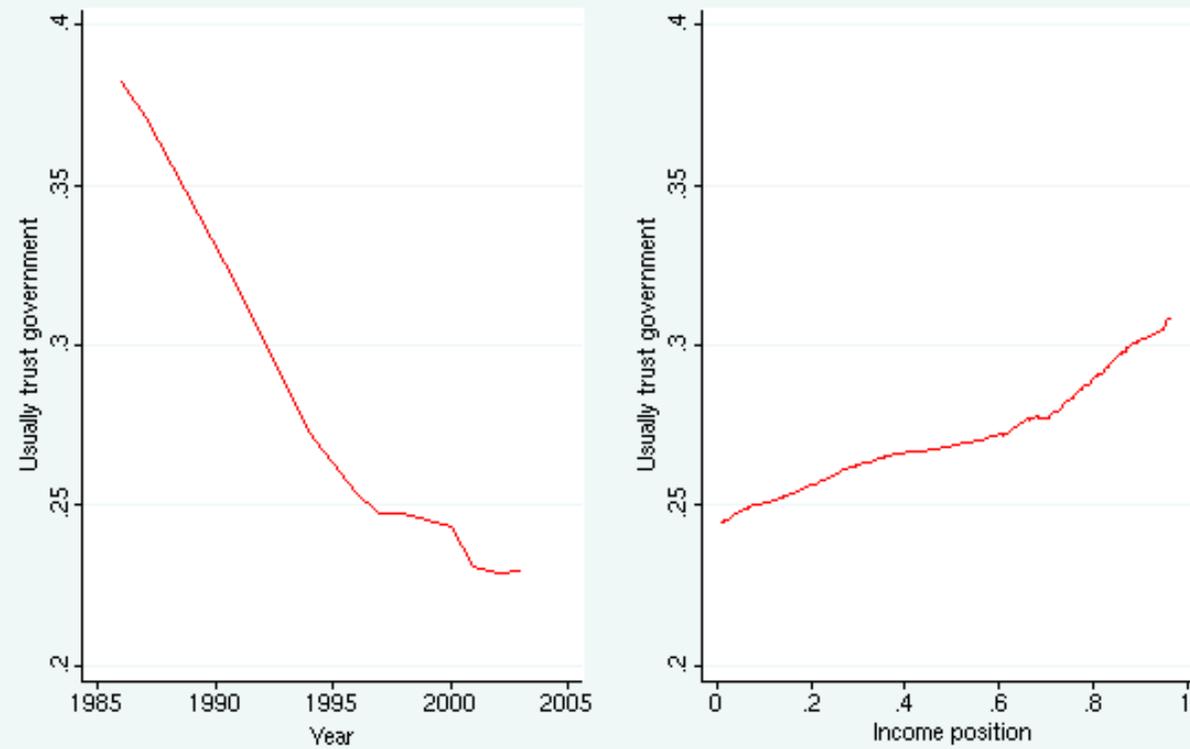
- Most private data is provided voluntarily
- Much is widely distributed even though there is no obligation for open access
- Allows for competition – users can decide what they find useful.
- Multiple independent observations are also useful to users

## The Problem of Trust

- One of the biggest issues in provision of data is users to trust the data that they have.
- Reforms in the U.K. have been responding to concerns about these issues and putting in place a structure to ensure that people can trust the data that we have and the statistics that are produced using these data.
- While this is responding to public concerns, there is little objectively to base these concerns on in the U.K.
- Moreover, declining trust parallels what we see in a variety of public spheres over the recent past.

## Trust in government

BSA, 1986-2004



Trust in Government: 1986-2004  
(From British Social Attitudes Survey)

- In the market place, problems of trust generally have rather direct effects on the bottom line.
  - reputations play a key role.
- But in government, the mechanism for accountability is rather less direct.
  - perception of nature of accountability.
  - perception of competence
- Having multiple sources of information can be advantageous in building trust.

## Concluding Comments

- The institutional structures that support data collection are a central feature of modern democratic societies.
  - The modern political economy literature provides a useful intellectual framework for thinking about these issues.
- We are fortunate in the U.K. in having an active public debate about these issues and a structure which supports evidence based policy.
  - But it is important to recognize that there is some value to pluralism.