

LSE Works: LSE Public Policy Group

Growing the Productivity of Government Services

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Growing the productivity of government services

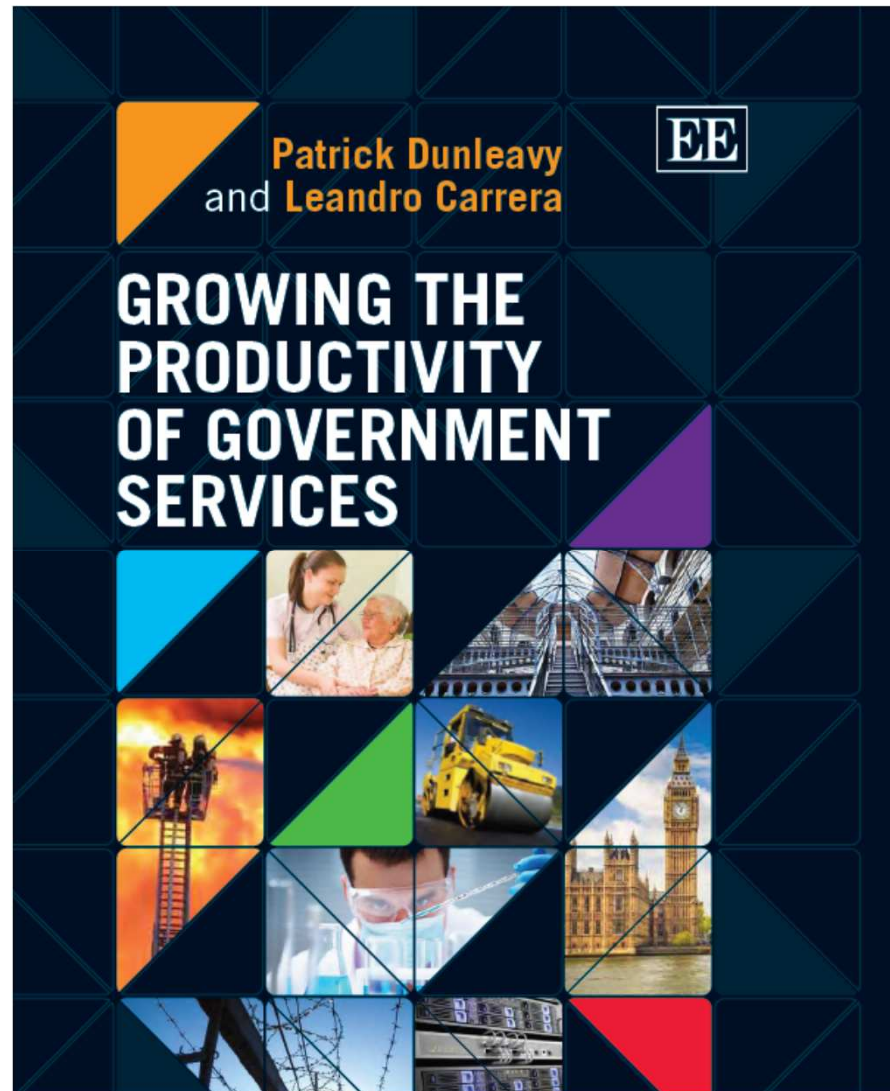
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Edward Elgar,
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Government sector productivity

- Productivity = Outputs/ Inputs
Yet much neglected in the public sector – as with flat productivity’ assumption, based on unmeasurability of government outputs and sustained for national statistics reasons
- Alternatively, ‘productivity’ is much cited – but the concept is inflated to include effectiveness, or made useless by enlargement to mean ‘everything good’
- Yet major progress has been made on measuring and costing outputs, key steps for achieving overall outputs indices
- So in private sector we weight by prices of sold outputs; after Atkinson (2005) in government we weight by costs (or administrative costs)

Problems in measuring public sector productivity

- Productivity is best measured comparatively with many decentralized providers delivering standard services
- Yet decentralization speaks to physical delivery of services, in professionalized and personalized ways – opening up important issues of services quality variations
- Productivity up-growth blips often reflect either unsustainable staff and organizational ‘cramming’ pressures (e.g demand growth, or staff over-cutting) or quality-shading
- So perverse productivity signals are perfectly feasible here. Hence Atkinson recommended quality weighting
- But this is very hard to do well, or continuously.

1. National government agencies

- Customs: trade regulation
- HMRC tax collection
- DWP social security

Problems in measuring national departments' productivity

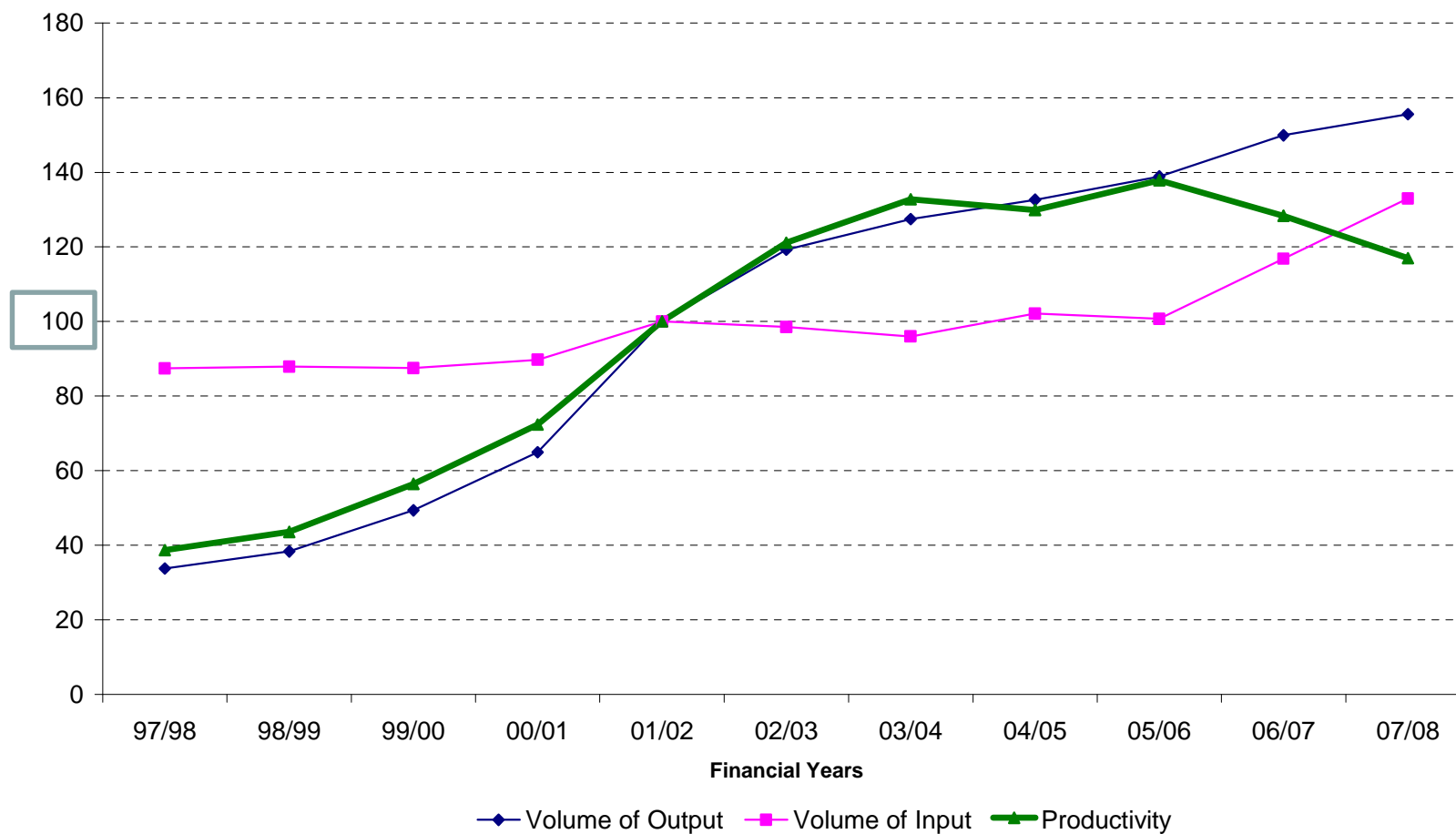
- Unique (within country) departments and agencies, large or very large organizations with minimal internal policy variations
- So no large N datasets, or domestic comparators, ruling out parametric studies and DEA approaches.
- International public management data are also very poor, so cross-national comparison is mostly infeasible.
- Civil servants, politicians and other commentators often dismissive of outputs/inputs measures at national government level – citing the range of agency outputs, strong levels of change in policy (eg new outputs), IT and technology changes, the unmeasurability of 'quality', the importance of 'public value' and process elements, important government-wide changes, responsiveness to ministers etc.
- Hence historically high levels of resistance to use of measurement – usually via not collecting relevant data, or constantly changing data specifications to prevent any long runs of data

Solutions for measuring national government productivity

- Focus on the over-time evolution of the same department or agency (usually 'immortal')
- Focus on departments with relatively standard operations, where fine-gauge quality variations don't make much difference at the aggregate levels
- Use a 'standard quality' constraint – non-comparabilities arise only if quality dips badly. Internalize most policy effectiveness change or churn, or general civil society advances in IT and 'point of service' standards
- Develop a detailed narrative for each agency with fine-grain process-tracing of productivity movements to specific policy shifts, organizational developments, reorganizations, etc. = *organizational productivity* story

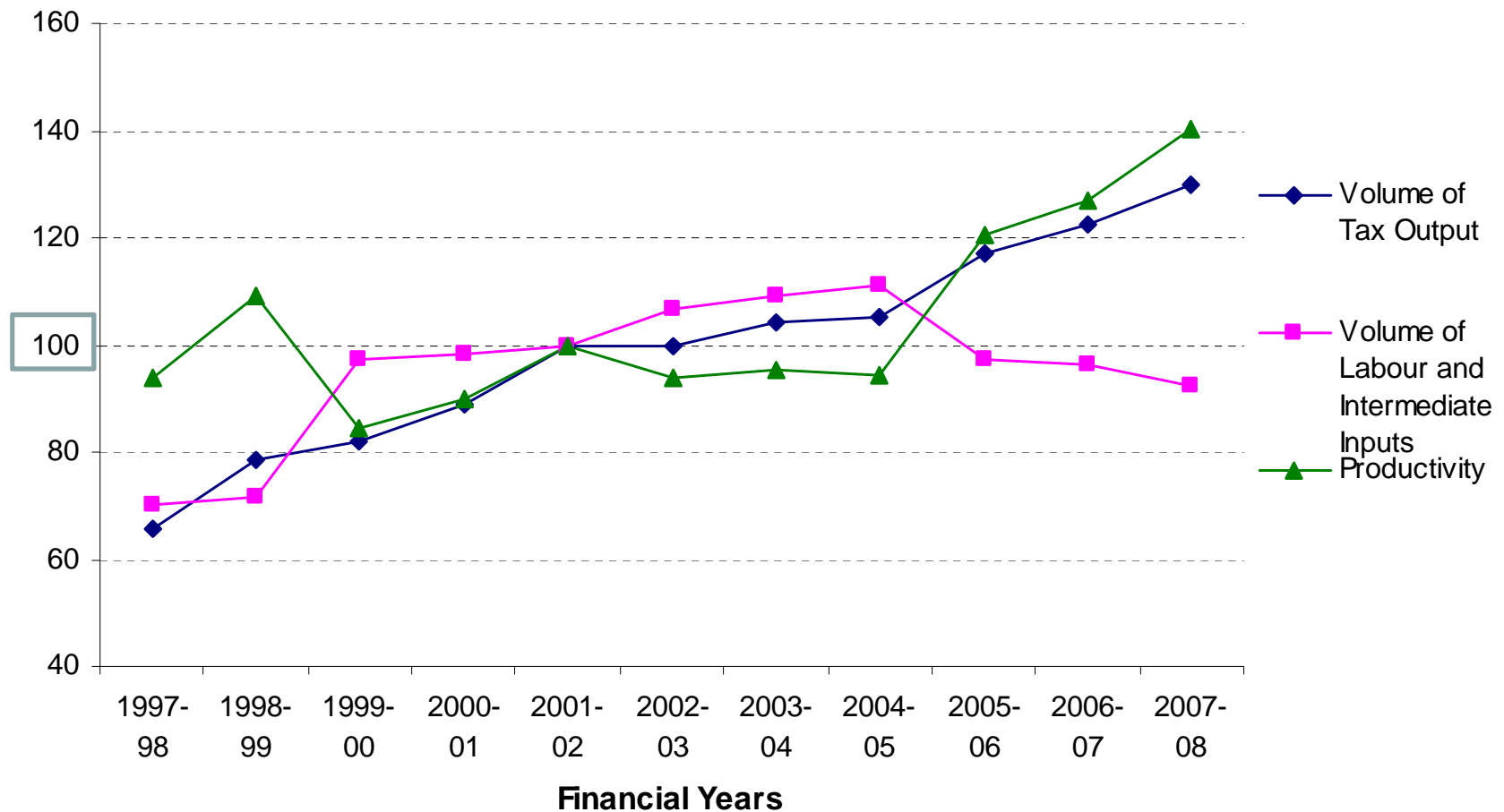
Total Factor Productivity in the Customs regulation of trade, 1997-2008

Volume (2001/02=100)



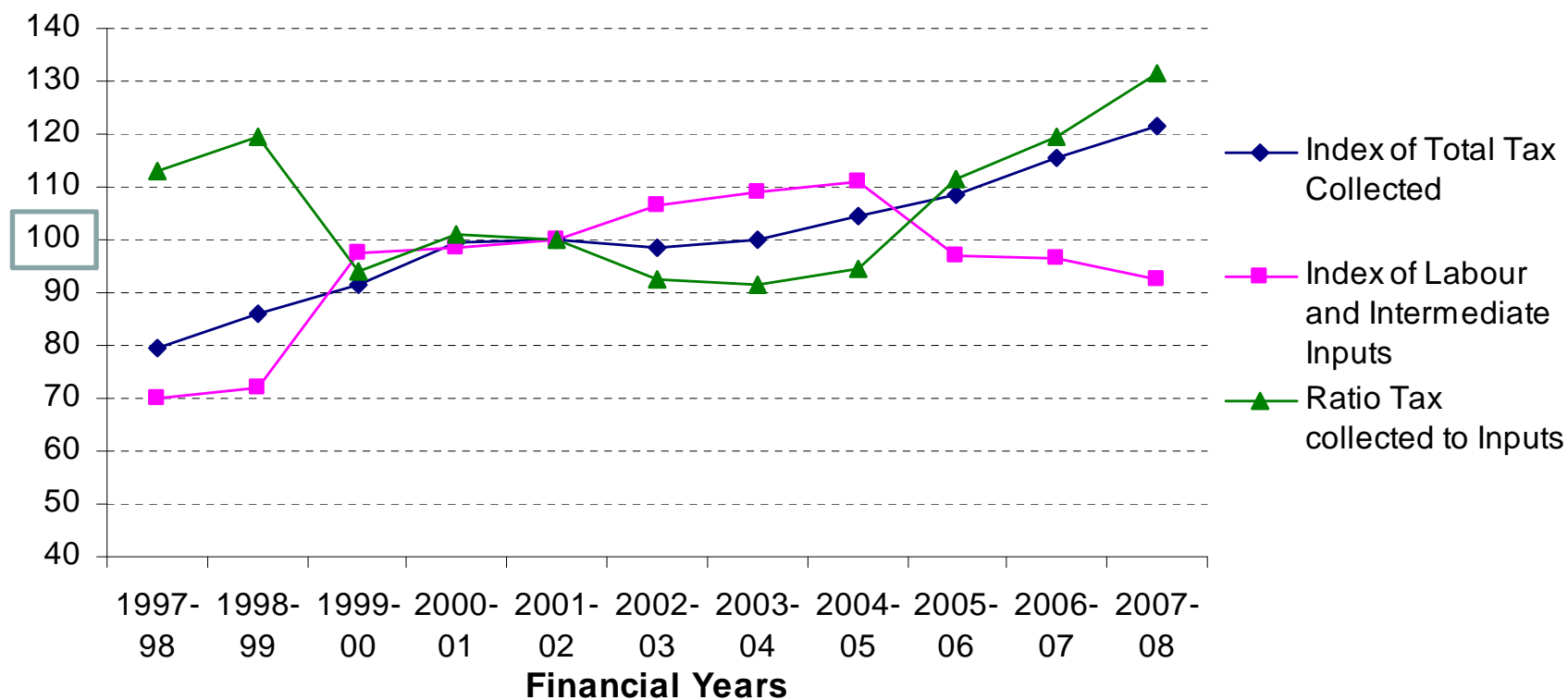
Labour and intermediate inputs productivity in UK taxation, 1997 to 2008, using tax collection activity data

Volume (01/02=100)



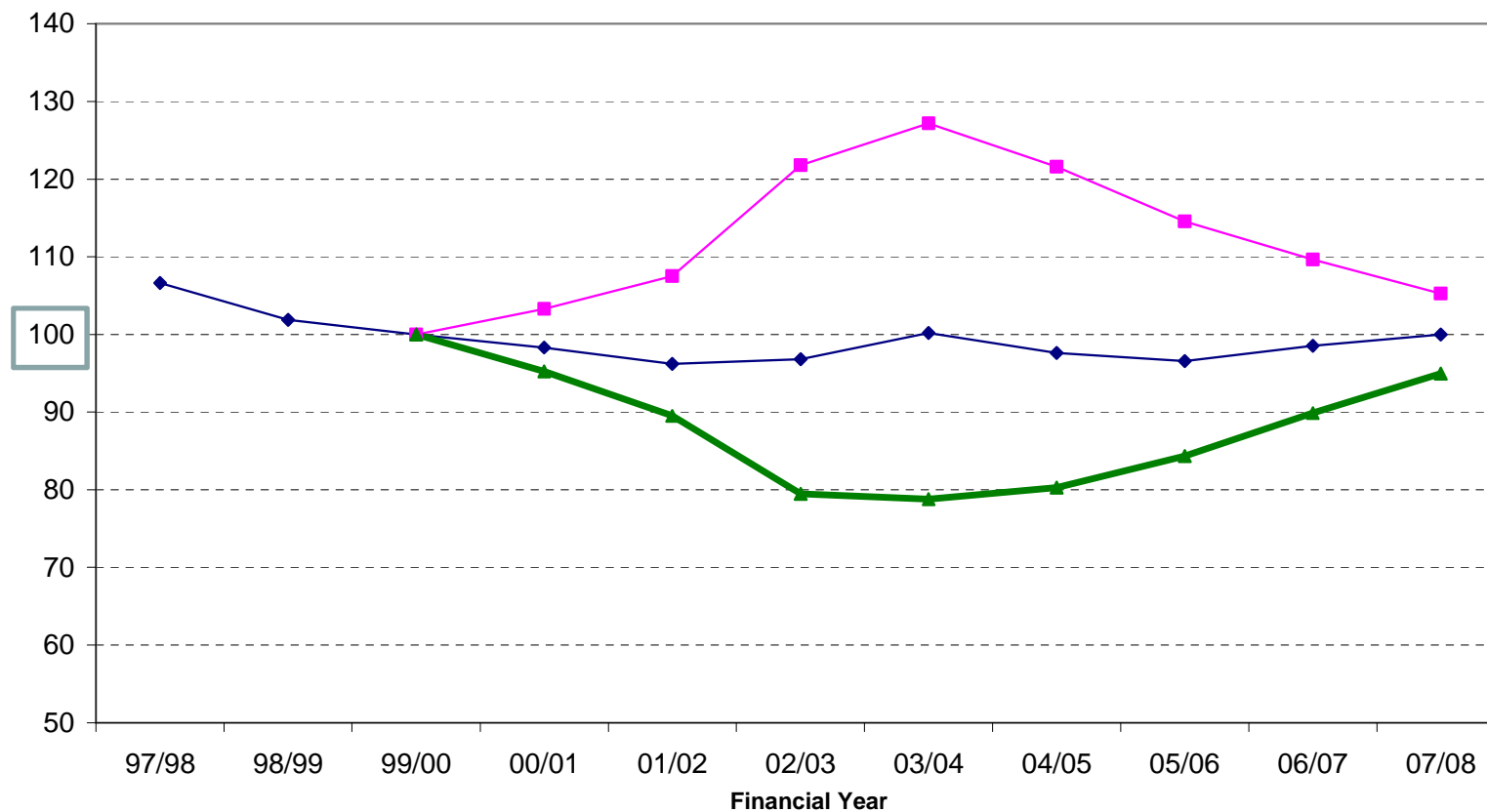
The ratio of the deflated amount of tax collected to labour and intermediate inputs, for HMRC and predecessor departments, 1997-2008

Volume (2001/02=100)



Total Factor Productivity in UK social security, 1997 to 2008

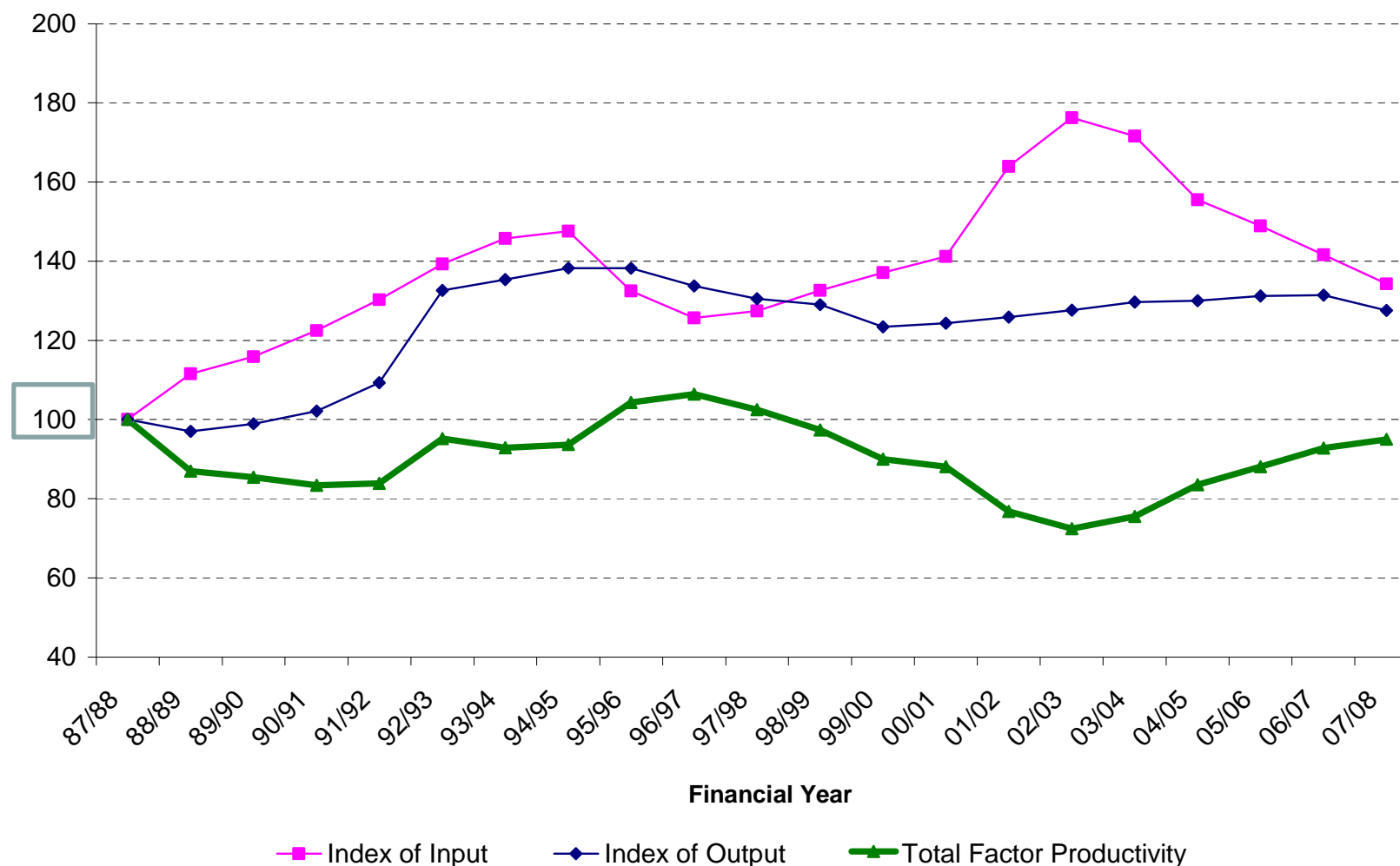
Volume (99/00=100)



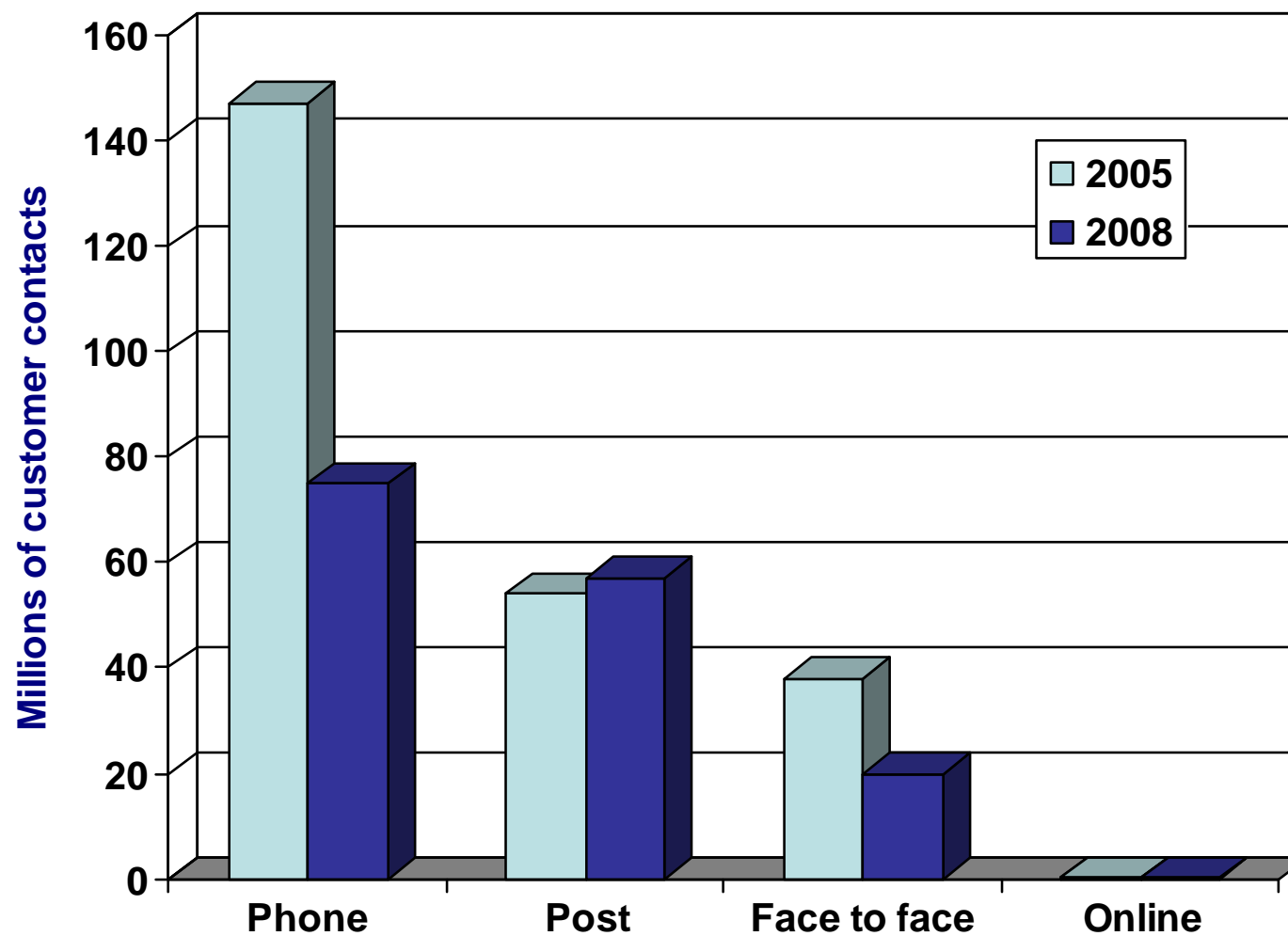
—◆— SS Index of Output —■— SS Total Expenditure Index —▲— SS Total Factor Productivity

Longer-term estimates of changes in total factor productivity for UK 'social protection' services, from 1987 to 2008

Volume (1988=100)



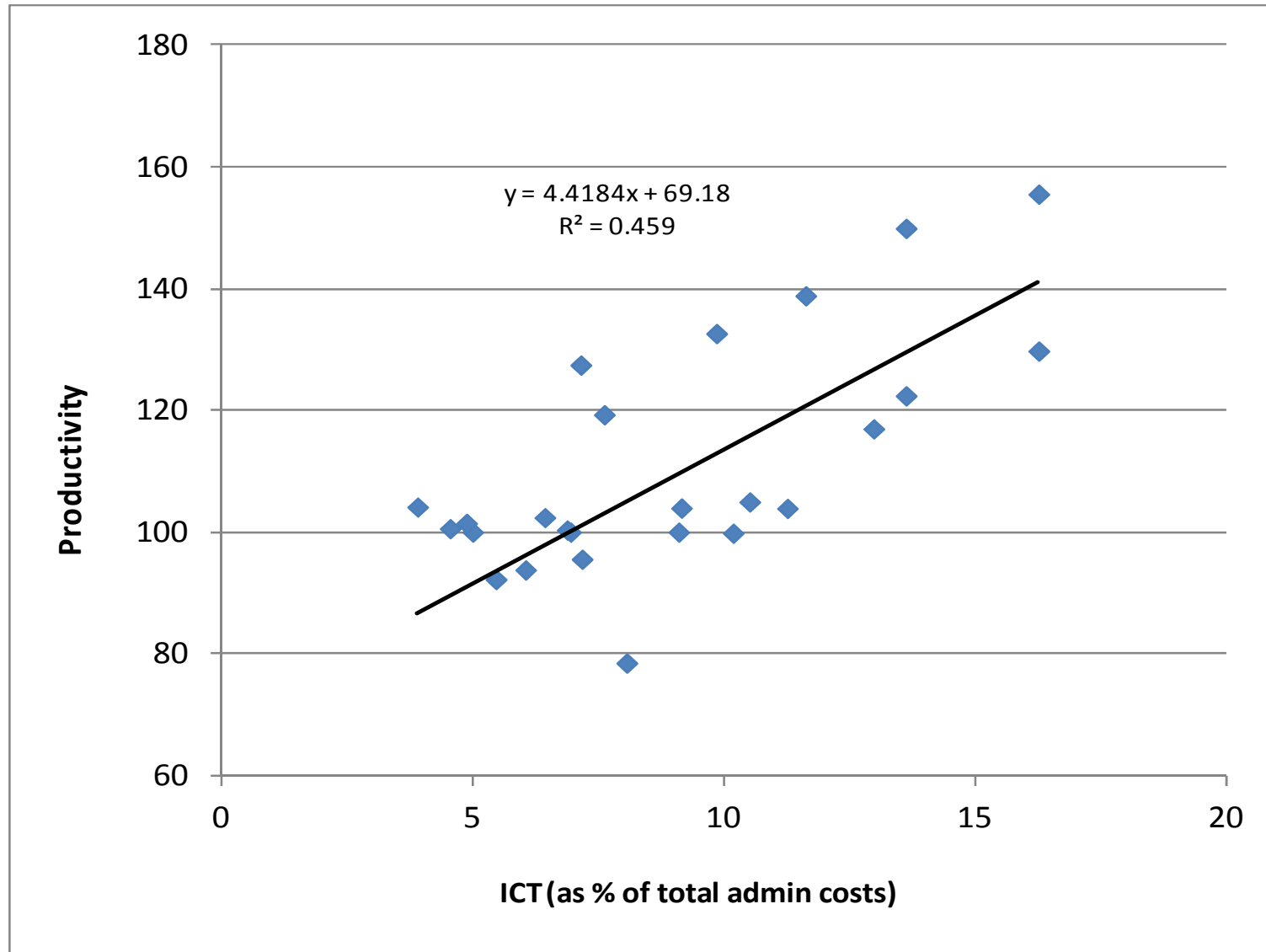
The changing pattern of the DWP's customer contacts, 2005 to 2008



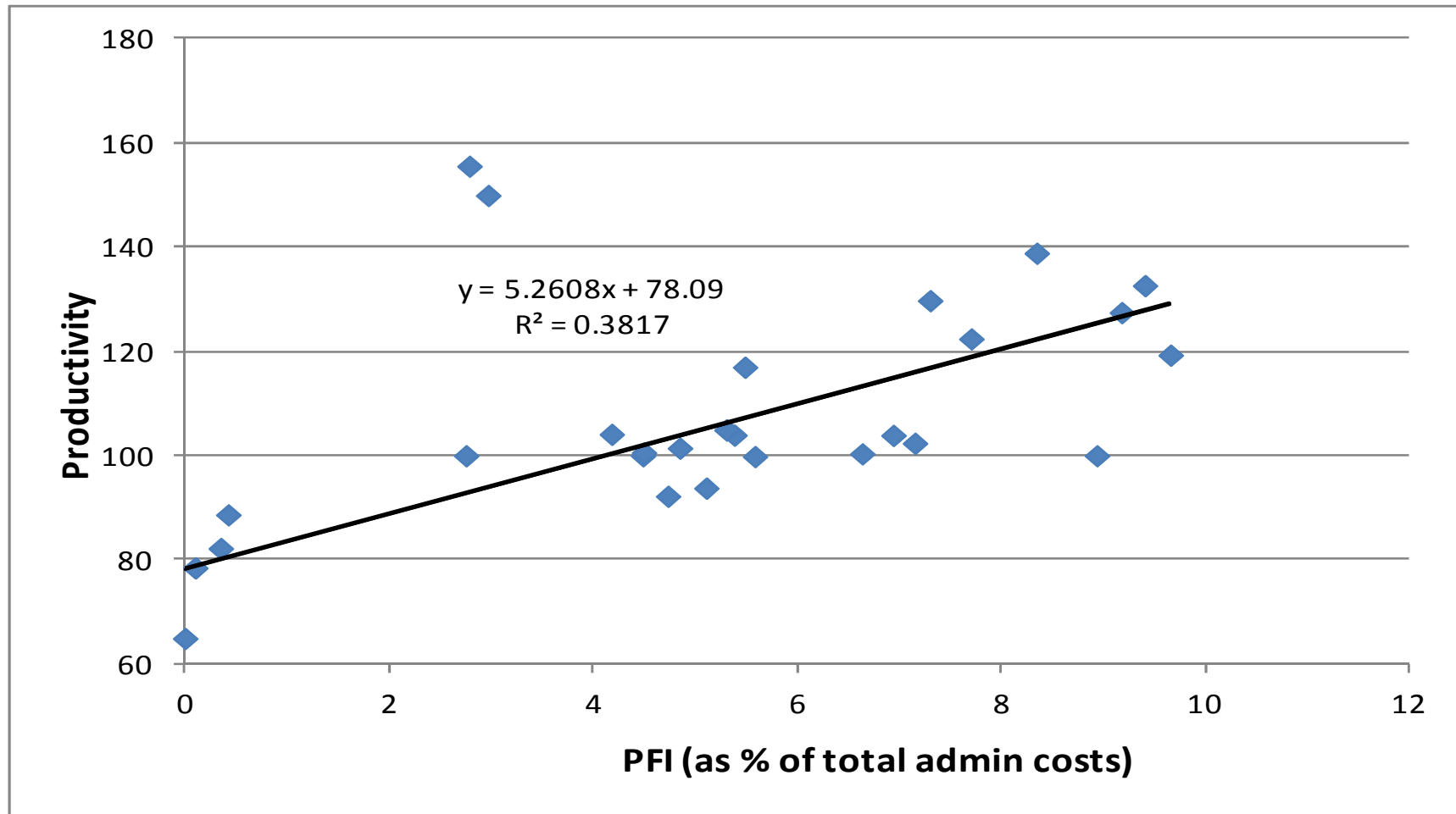
Indicative overview on

2. The role of IT and wider management changes

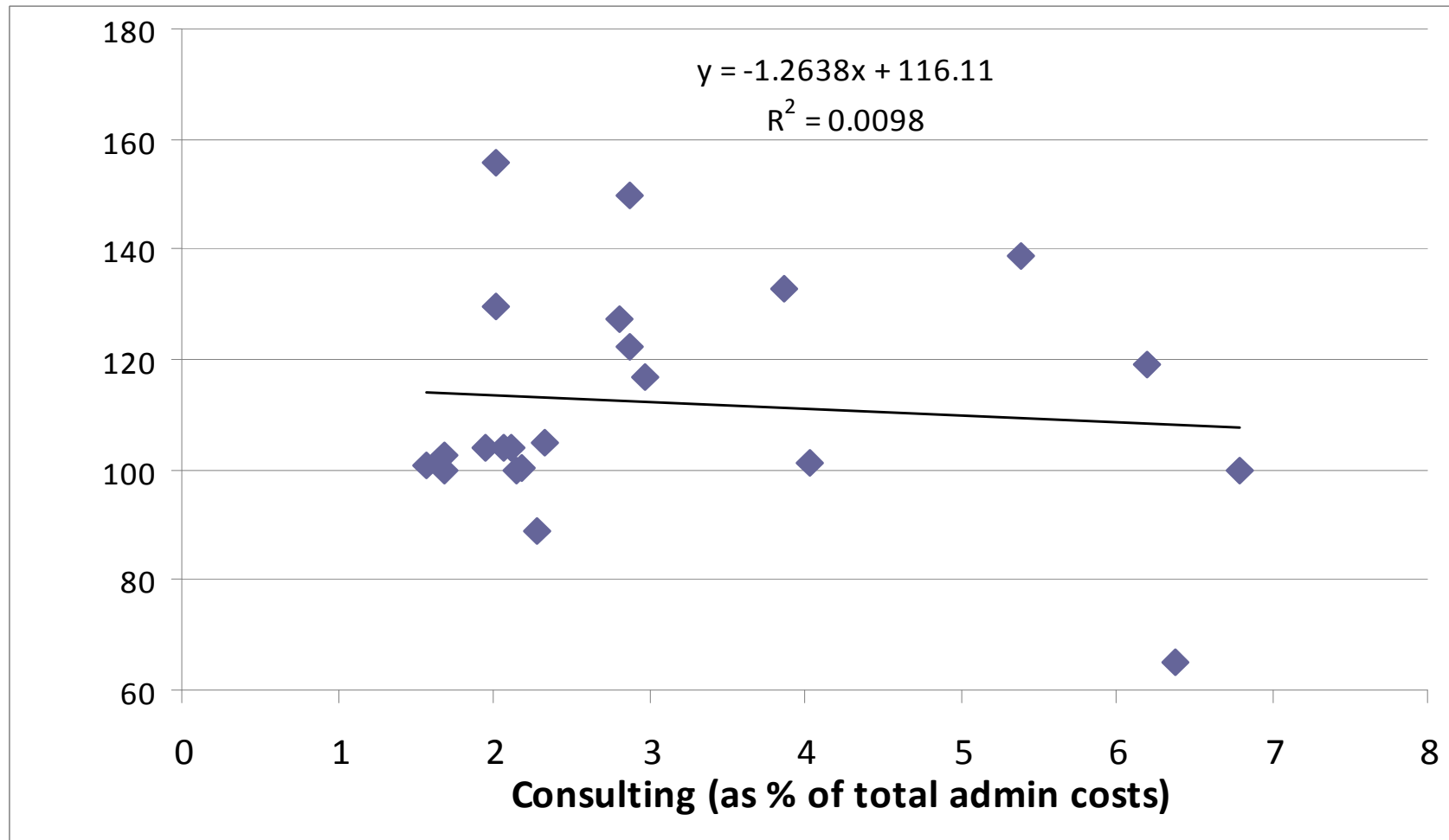
Productivity versus lagged ICT spending across DWP, HMRC (tax), and Customs for 1999-2008



Productivity versus lagged construction PFI spending across DWP, HMRC (tax), and Customs for 1999-2008



Productivity versus lagged consulting spending across DWP, HMRC (tax), Customs for 1999-2008



Five key steps to sustainable public sector productivity growth

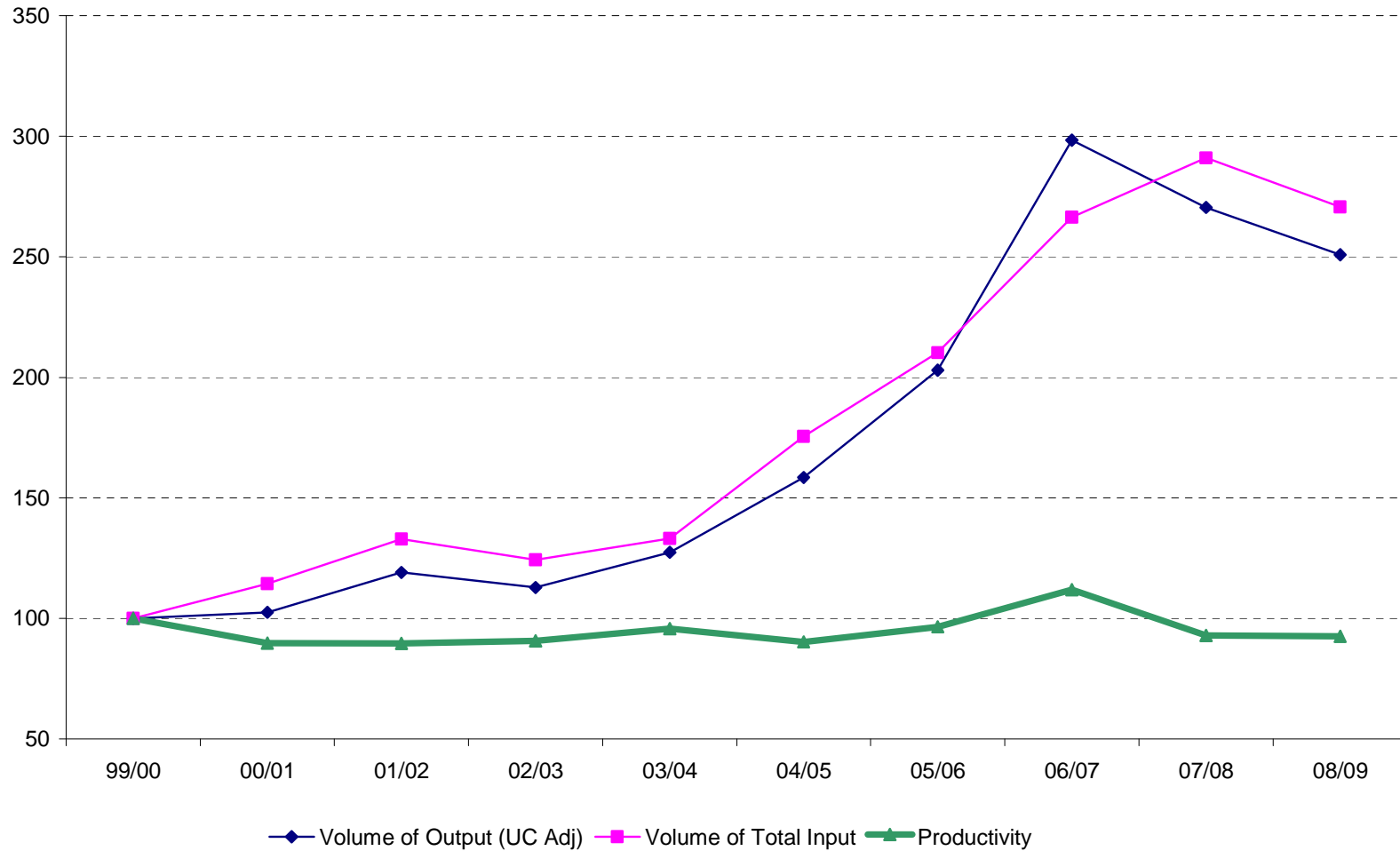
1. Focus hard and *continuously* on productivity growth, countering adverse relative price effects
2. Recognize that public sector innovation is *twice* as vital for productivity growth as in the private sector
3. Engage public sector workers in facilitating changes, maximizing information revelation by creating trust in management's non-opportunism
4. Encourage *genuine* demand transfers across suppliers (e.g intra-governmental competition and mixed economy models) can play a small role
5. Reduce public and political support for those 'big state' routes to reducing social inequality that are no longer working well – difficult to do when social inequality is increasing

Thank you for listening



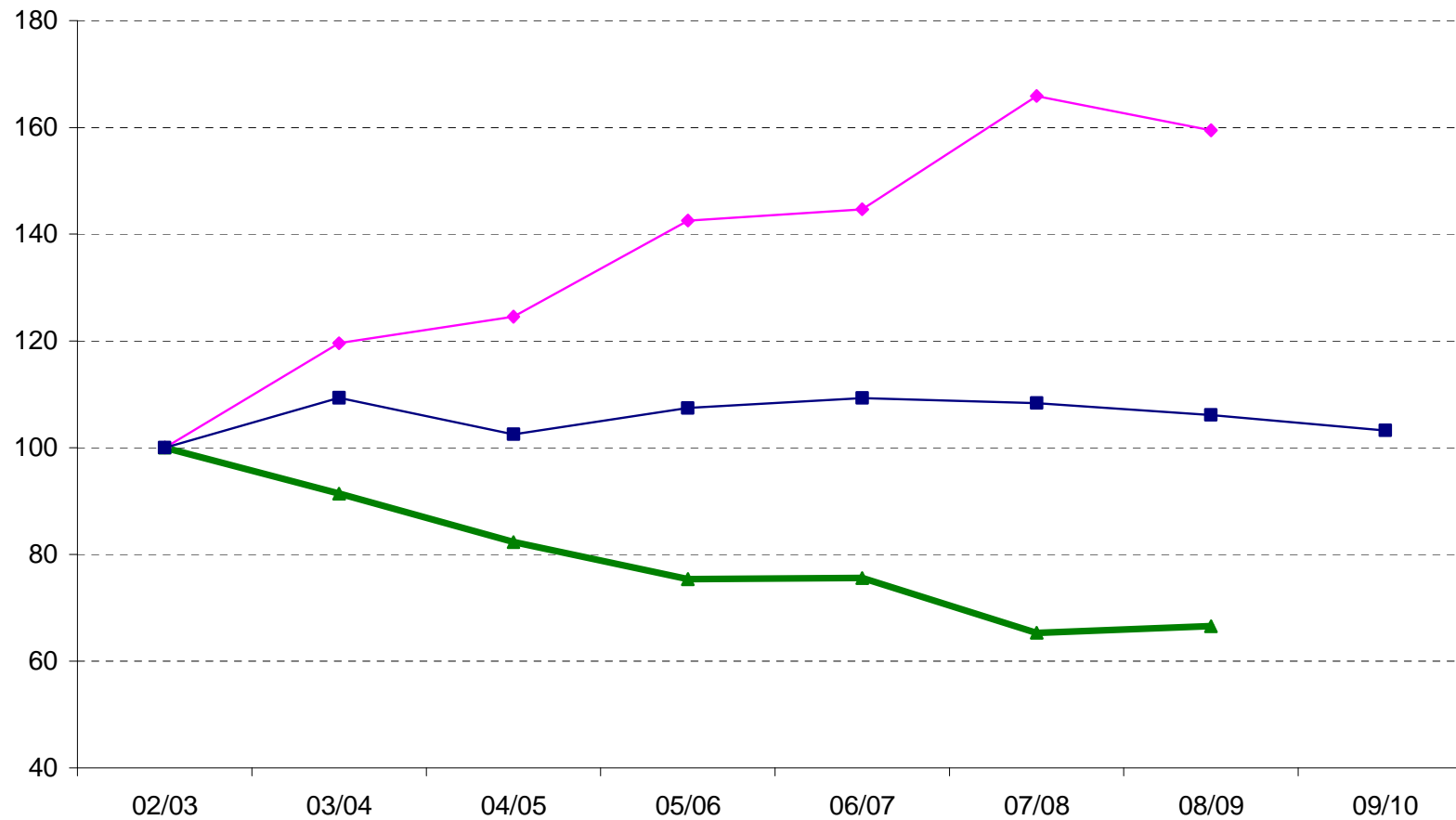
Total factor productivity in passport issuing

Volume (99-00=100)



Total factor productivity in DVLA

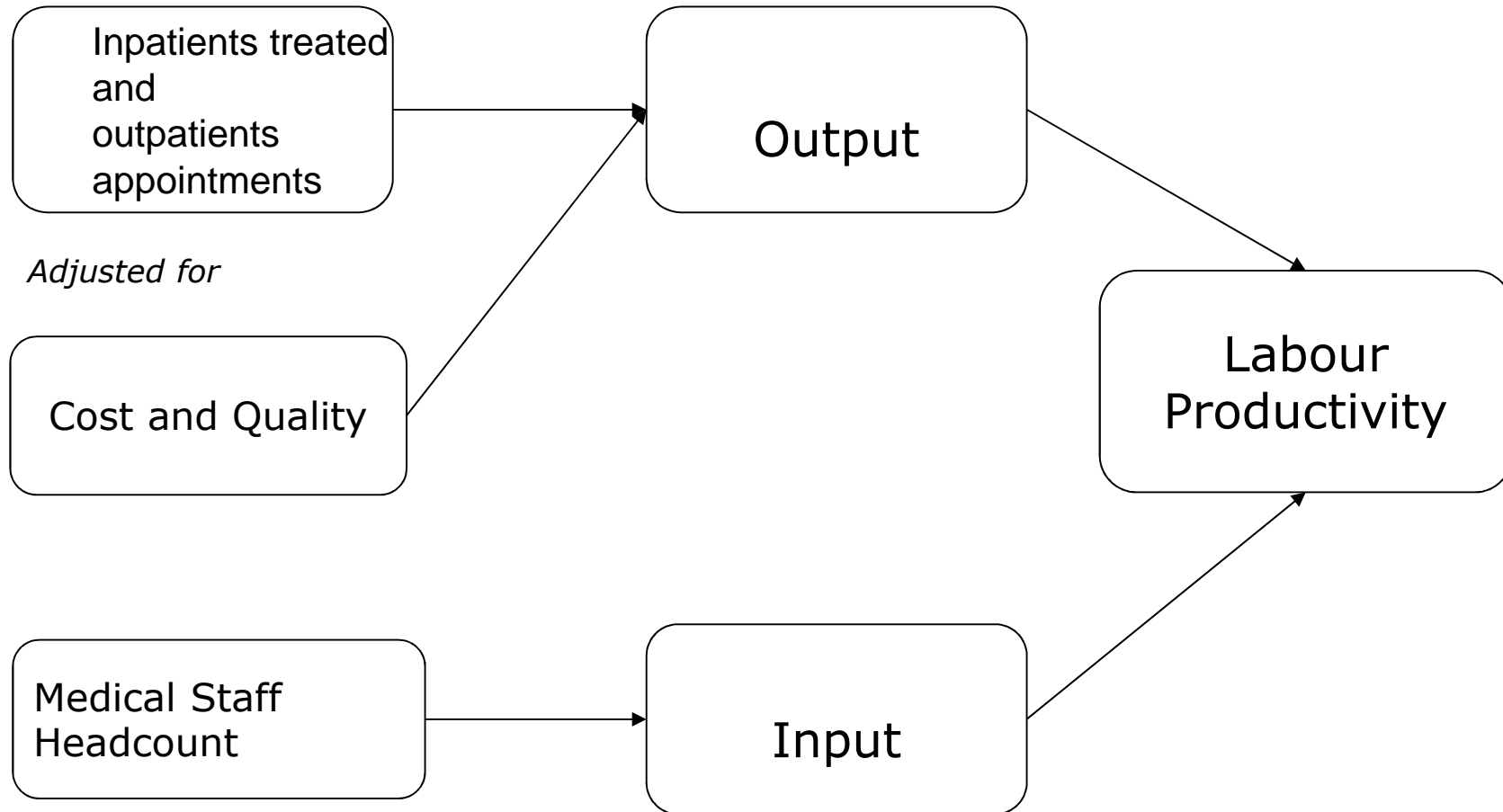
Volume (02/03=100)



▲ Total Expenditure Productivity ◆ Volume of Total Input ■ Volume of Total Output

3. Decentralized agencies' productivity - the National Health Service

Essential model for NHS productivity



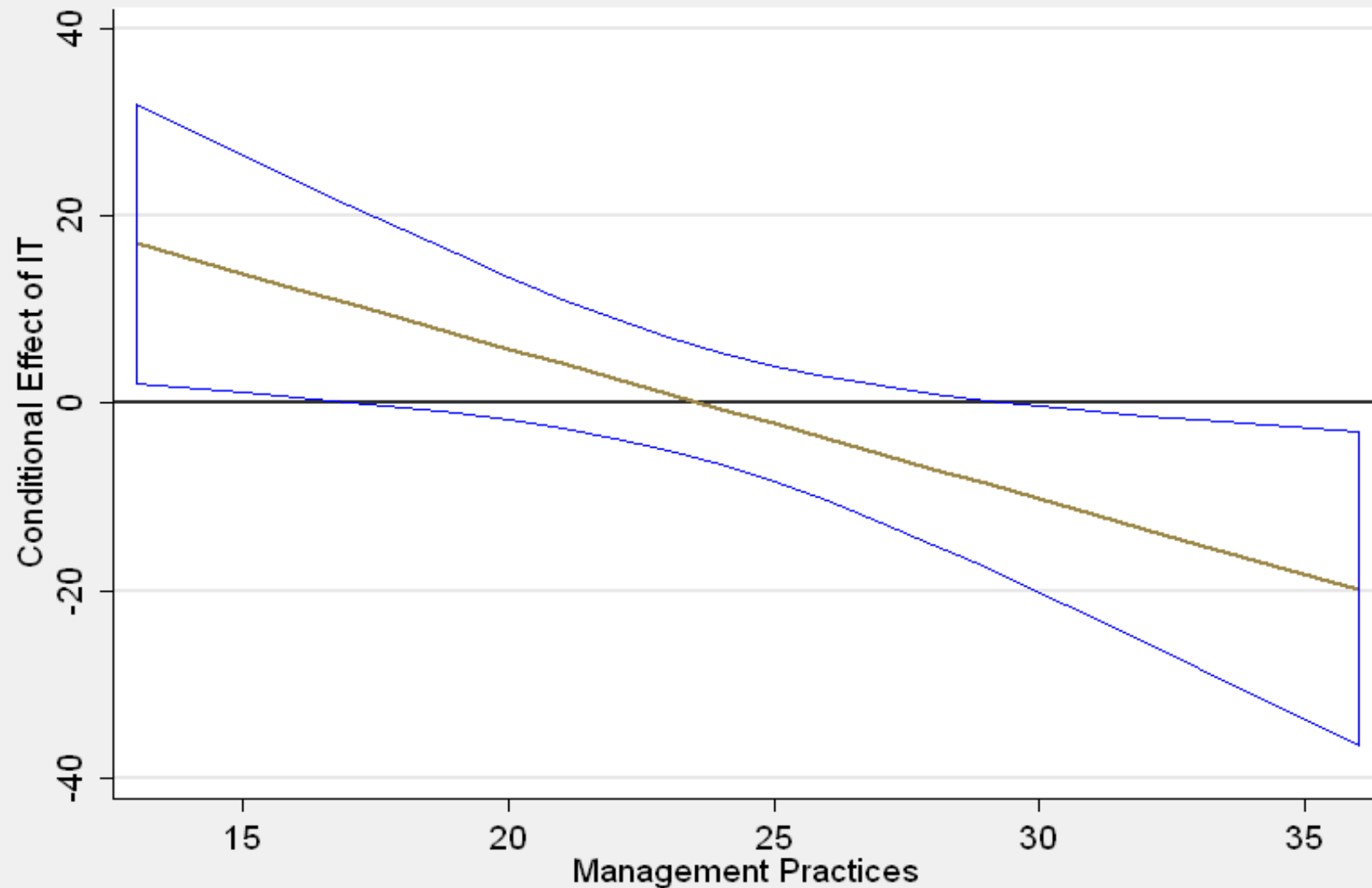
Key innovations or differences

- Developed quality adjustment as well as cost weighting of outputs
- New independent variables measured via web censuses of trusts covering
 - Management practices
 - Use of IT

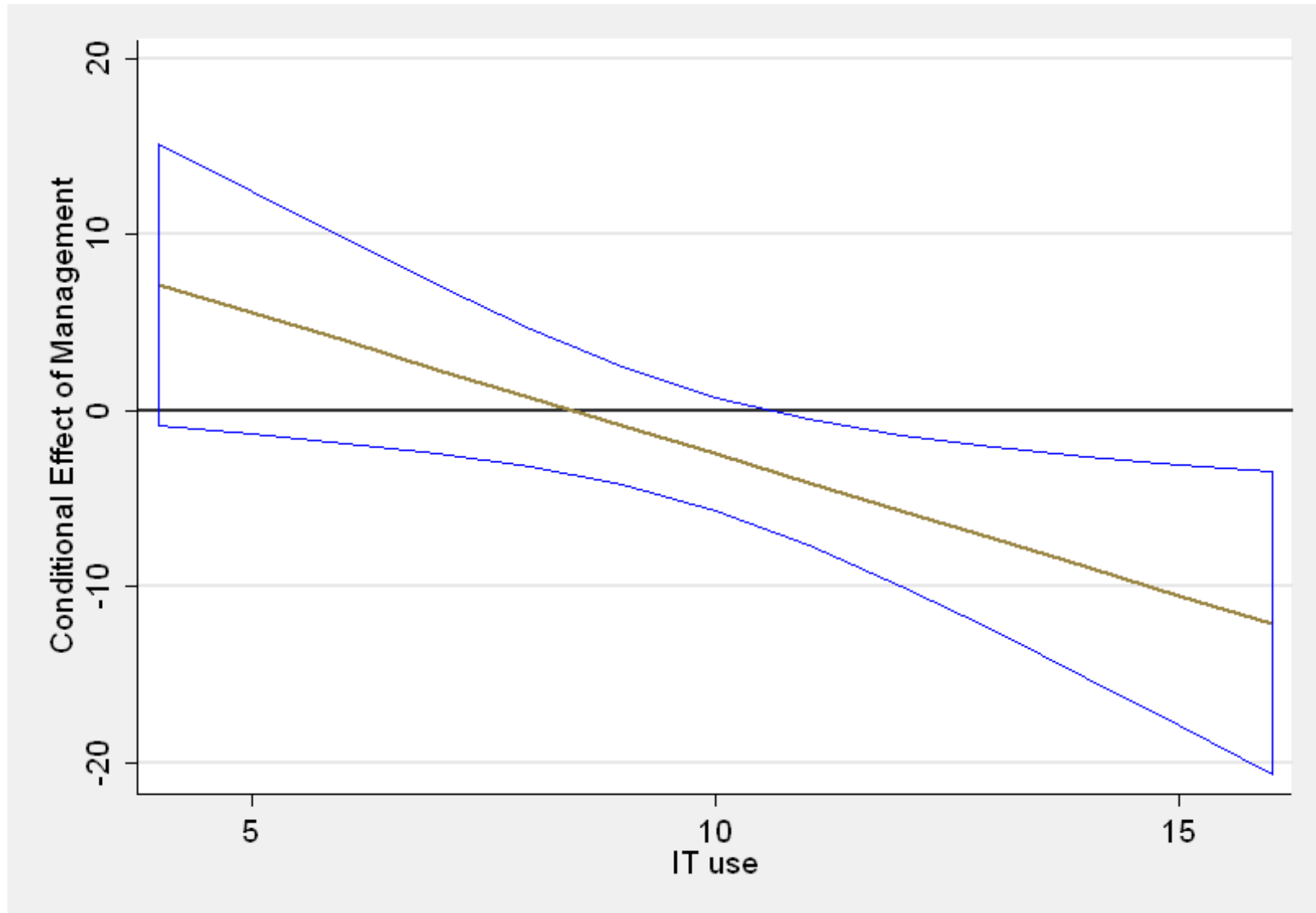
Select OLS regression results for productivity across English NHS acute hospital trusts

Independent Variable	Model 1 (dep var = cost adjusted labour productivity)	Model 5 (dep var = Full cost and quality adjusted labour productivity)
ICT Use	27.15 (24.90)	35.709** (18.414)
Management Practices	11.10 (10.45)	12.867* (7.767)
ICT x Management	-1.33 (1.03)	-1.58** (0.766)
General Training hospital	6.62 (11.63)	12.187 (8.869)
Specialist hospital	-6.57 (36.80)	109.634*** (32.184)
Teaching hospital	-53.57 (65.19)	48.229 (50.709)
London	-71.86*** (35.30)	-80.287*** (26.733)
R^2	0.09	0.16
N	160	147

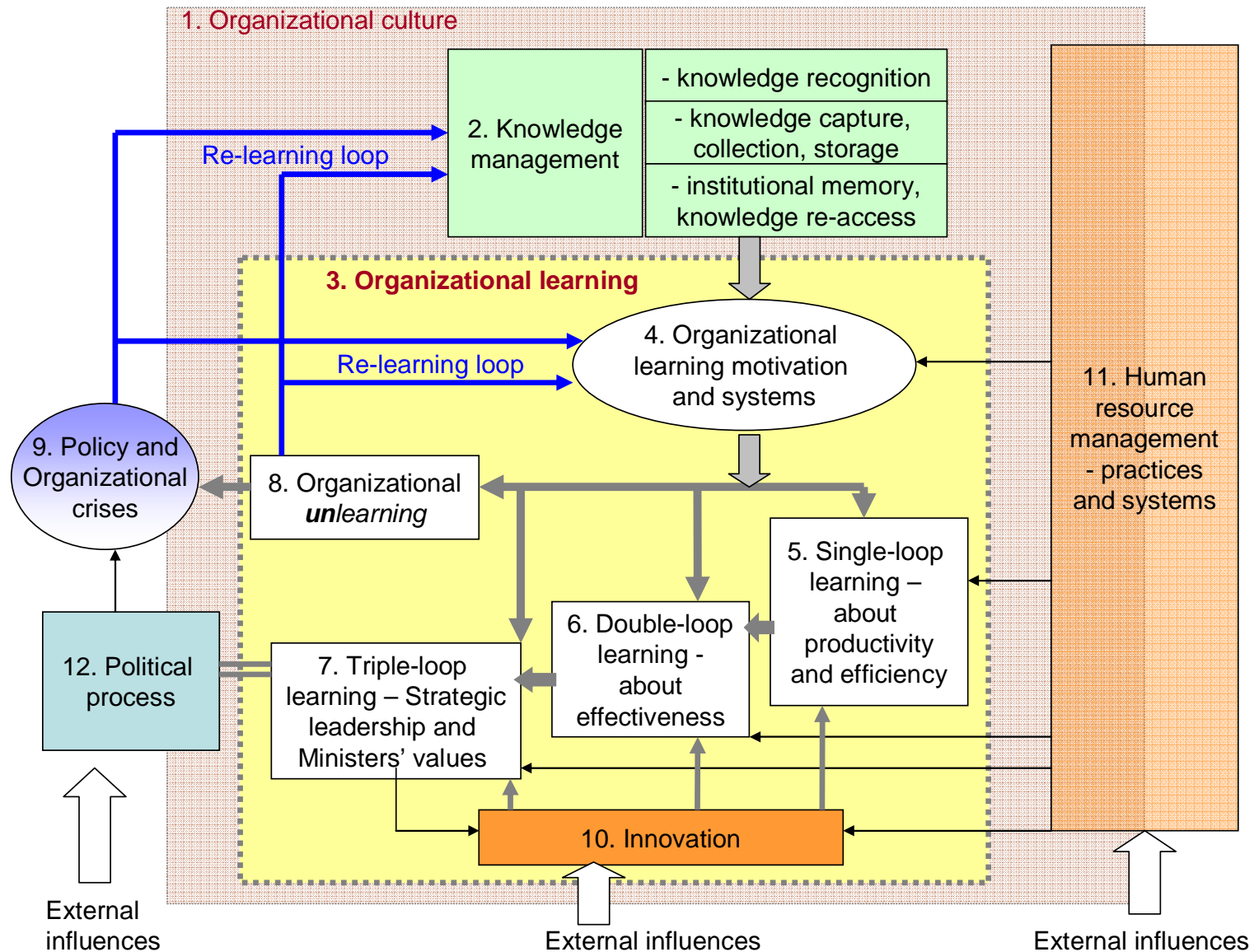
The conditional effect of IT use, given management practices



The conditional effect of management practices, given IT use



Situating organizational learning in government sector organizations within external influences



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