Public Sector Creative Accounting: Past Reflections and a Future Research Agenda

Ron Hodges, Emeritus Professor of Accounting
CIGAR, Porto, 8 June 2017
AGENDA

1. INTRODUCTION & OUTLINE
2. PSCA – ‘Broad’ & ‘Focused’ Views
3. CREATIVE ACCOUNTING – WHY & HOW?
4. PSCA – ‘BROAD’ ILLUSTRATIONS
5. PSCA – ‘FOCUSED’ ILLUSTRATIONS
6. PSCA - CONCLUSIONS & FUTURE RESEARCH POSSIBILITIES
INTRODUCTION: WHY CA IS IMPORTANT

DINOSAURS  MONUMENT  Parker (1991, BH)

POLITICAL LEADER
INTRODUCTION: I’M NOT COVERING NON-FINANCIAL CA

These are no limits to the possibilities here e.g.

Pitches et al (2003, BMJ)
Manipulating admissions lists
Reducing A&E waiting times
Reducing mortality figures

University of Evora
“The second oldest in Portugal”
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CREATIVE ACCOUNTING – ‘BROAD & FOCUSED’ VIEWS.

CREATIVE ACCOUNTING – no formal definition.

– Healy & Wahlen (1999, AH) – use of judgement in financial reporting … to mislead about financial performance … or to influence contractual outcomes …

– Implications – legal vs moral arguments
– Classic UK texts are Griffiths (1986) & Smith (1992)
CREATIVE ACCOUNTING – ALTERNATIVE TERMINOLOGY

Accounting devices,
Accounting misrepresentation
Cooking the books
Earnings management
Financial performance adjustment
Fiscal gimmickry
Fudges, games
LOTS OF PRIVATE SECTOR AND FEW PUBLIC SECTOR STUDIES

For example, compare Dechow et al (2010, JAE) ‘over 300 studies on quality of earnings’ with Cardoso & Fajardo (2014, WP) identify 17 studies on PSCA.
'BROAD & FOCUSED’ VIEWS.

BROAD VIEW

Any use of financial information to distort decision-making and influence outcomes. (Could include any financial performance indicators in a public sector context).

FOCUSED VIEW

Use of CA to influence views or outcomes in the particular context of DEFICIT / SURPLUS and of DEBT.
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CA – WHY DO IT?

In a Private Sector Context:

- To influence stock market perceptions;
- To give impressions of lower risk;
- To increase managements’ income / bonuses;
- To avoid violation of borrowing agreements;
- To reduce the cost of capital;
- To avoid political costs such as intervention by regulators.
PSCA – WHY DO IT?

☐ In a Public Sector context:
   – To meet specific financial performance targets, typically set by a higher authority.
   – To report a ‘break-even’ position to signal that they are providing services within set budget limits or at a ‘reasonable’ cost.
   – To report a ‘break-even’ position (without large surpluses) to signal that they are not charging excessive taxes or levies.
PSCA – WHY DO IT?

There may be short-term political benefits to report positive performance that, to the preparers / presenters of data, outweigh longer-term detriments.

There may be few with sufficient incentives to monitor PS financial statements, so the risks / costs of getting caught are low.

In contrast, the potential political / economic consequences of not achieving targets may be substantial.
# INFORMATION-MANIPULATING BEHAVIOR

Adapted from: Birnberg et al (1983, AOS, p. 125)

<table>
<thead>
<tr>
<th>BELIEF IN ANALYZABILITY</th>
<th>BELIEFS IN MEASURABILITY &amp; VERIFIABILITY OF DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIGH BELIEF</strong></td>
<td><strong>LOW BELIEF</strong></td>
</tr>
<tr>
<td>HIGH belief in Analyzability of data</td>
<td>CELL 1 Very little manipulation (Subordinate’s actions coincide with Mgmt expectations)</td>
</tr>
<tr>
<td>LOW belief in Analyzability of data</td>
<td>CELL 2 Biasing &amp; Gaming (Mgmt knows the questions but cannot evaluate the answers)</td>
</tr>
<tr>
<td></td>
<td>CELL 3 Filtering the Truth (Mgmt cannot be sure that they are asking the right questions)</td>
</tr>
<tr>
<td></td>
<td>CELL 4 All Manipulation Methods (Akin to ... public sector resource allocation decisions)!!</td>
</tr>
</tbody>
</table>
GAMES GOVT ACCOUNTANTS PLAY

Anthony (1985, HBR)

CASH BASIS OF ACCOUNTING
- Desk drawer accounting;
- Keep books open after the year end.

FUND ACCOUNTING
- Use to transfer income / expenditure to / from the General Fund: e.g. enterprise funds, debt service funds, capital projects funds.

STEPS TO LIMIT THE GAMES
- Independent audit, consolidations, accrual GAAP
## A Taxonomy of Accounting Devices
adapted from Irwin (2012, IMF, p. 5)

<table>
<thead>
<tr>
<th>Immediate Impact of PSCA</th>
<th>Future Impact of PSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>More Revenue</td>
<td>Hidden Borrowing</td>
</tr>
<tr>
<td>Reduction in Expenditure</td>
<td>Deferred Spending</td>
</tr>
<tr>
<td></td>
<td>Reduction in Revenue</td>
</tr>
<tr>
<td></td>
<td>Disinvestment</td>
</tr>
<tr>
<td></td>
<td>Foregone Investment</td>
</tr>
</tbody>
</table>
EXAMPLES OF ACCOUNTING DEVICES
(from Irwin, 2012)

HIDDEN BORROWING: e.g. take over pension schemes (for cash) of private companies; sale & leaseback; derivative liabilities [Austria, Belgium, Denmark, France, Germany, Greece, Italy, Poland, Portugal, Spain, Sweden, USA].

DISINVESTMENT: e.g. sale of financial / non-financial assets; securitization of future revenues [Belgium, Germany, Greece, New Zealand, Portugal].

DEFERRED SPENDING: e.g. delay current payments, leasing, PPP, civil-service pensions [Australia, Canada, UK, USA].

FOREGONE INVESTMENTS e.g. cut back capital payments, concessions [Australia, Chile].
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PSCA ‘BROAD’ ILLUSTRATIONS

Gaming to maximise revenue – e.g. Norwegian Hospitals DRG system (Legreid & Neby, 2016, FAM): examples include *DRG-creep; upcoding; creaming & skimming*. League table positioning – e.g. UK NHS reference costing - being the ‘average’ hospital (Llewellyn & Northcott, 2005, AOS). Find that hospitals become ‘more average’ - 72% within 10% of national average cost (p. 568).

Two Further Illustrations:

King Philip II of Spain and the ‘Just’ rate of interest. UK Defence Expenditure & the 2% NATO pledge.
Creative Accounting in the Age of Philip II? Determining the ‘Just’ Rate of Interest.

Philip II of Spain (1527-1598)
KINGDOM OF NAPLES (KoN) ECONOMIC POSITION c. 1550-75

Naples role in supporting Spanish imperial policies.

Increasing Spanish tax levies, including Hearth Taxes.

Proposal that KoN would pay $500K in each of two years as prepayment of 15 years of $100K p.a. hearth taxes originally expected.

Increasing public costs – expenses of war consume 40% of KoN finances to 1575.

Planned Hearth Census is proposed to be suspended.

Spanish war against Turkey in Cyprus shifts KoN finances into deficit spending & increasing public debt.
Reasons to support the Scheme

King and Spanish Rulers of Naples

1. Necessity – cash needed to meet financial crisis following wars;
2. Saving of £180K cost of carrying out the Hearth Census;
3. Collect cash within three years;
4. Potential to recover ‘lost’ revenue in 15 years time as unpaid interest.
Reasons to support the Scheme

Neapolitan Town Councils

1. **Avoid costs, inconveniences and frauds associated with the Hearth Census.**
2. **Potential for Town Councils to file suit for their case to be adjudicated during the 15 year period leading to the next Hearth Census.**
The Kingdom of Naples, having to pay his majesty 100,000 ducats each year for fifteen years … is to send in 1576 and 1577 payments equal to the amount anticipated, at the rate of **nine per cent per year**. …

<table>
<thead>
<tr>
<th>Year</th>
<th>Interest of</th>
<th>ducats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year, 1576</td>
<td></td>
<td>100,000</td>
</tr>
<tr>
<td>2nd year, 1577</td>
<td></td>
<td>91,743</td>
</tr>
<tr>
<td>3rd year, 1578</td>
<td></td>
<td>84,746</td>
</tr>
<tr>
<td>4th year, 1579</td>
<td></td>
<td>78,740</td>
</tr>
<tr>
<td>5th year, 1580</td>
<td></td>
<td>73,529½</td>
</tr>
<tr>
<td>6th year, 1581</td>
<td></td>
<td>68,965½</td>
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Source: Marino (1993, p.770)
<table>
<thead>
<tr>
<th>Year</th>
</tr>
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<tr>
<td>7th year, 1582</td>
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<tr>
<td>8th year, 1583</td>
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<tr>
<td>9th year, 1584</td>
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<tr>
<td>10th year, 1585</td>
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<tr>
<td>11th year, 1586</td>
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<tr>
<td>12th year, 1587</td>
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<tr>
<td>13th year, 1588</td>
</tr>
<tr>
<td>14th year, 1589</td>
</tr>
<tr>
<td>15th year, 1590</td>
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</tbody>
</table>

Source: Marino (1993, p.770)
ALTERNATIVE PERCEPTIONS
OF A ‘JUST’ RATE OF INTEREST

- **Compound Discounting Approach = 7.15%**
  - The ‘implicit rate of interest’ using modern techniques

- **Simple Discounting Approach = 9.0%**
  - There is no interest on interest (usury).
  - E.g. 2\(^{\text{nd}}\) year interest = \(100 \times 9 / 109 = 8.257\); 3\(^{\text{rd}}\) year interest = \(100 \times 18 / 118 = 15.254\)

- **Simple Interest Approach = 3.3%**
  - Interest rate = \((102,276 + 394,317.5) / [(497,724 + 505,682.5) \times 15] \)
Some Observations of the Case

1. Compound interest / AER / IRR are ‘as much constructed mathematical constructs as any other’ (Marino, p. 777).

2. The Castillian accountants used rhetoric to hide the truth from one or more parties to the contract:
   1. The King?
   2. The Genoese Bankers?
   3. The Neapolitan viceroyalty?
   4. The Neopolitan town councils and citizens?
Shifting the goalposts? Defence expenditure and the 2% pledge.

Defence Expenditure & the 2% Pledge
(House of Commons Defence Committee, 2016)

2006 – NATO guideline to commit a minimum of 2% of GDP to spending on defence.

September 2014 (Wales summit) - NATO members reconfirm the 2% of GDP on defence commitment.

July 2015 – Osborne commits the UK to meeting the 2% pledge ‘every year of this decade’.

It becomes apparent that 2015-16 spending will fall just below 2% using existing accounting allocations.
UK DEFENCE EXPENDITURE 1985 – 2014
(FORECASTED FOR 2016)

Source: Adapted from House of Commons Select Committee (2016) HC494
Defence Expenditure & the 2% Pledge
(House of Commons Defence Committee, 2016)

New items added to expenditure for NATO reporting purposes including war pensions (£820m), UN peace-keeping missions (£450m) and pensions of retired civilian MOD personnel (£200m).

“… the government has creatively applied [NATO criteria] and in doing so has added 14% or £5.7 billion to the defence budget.”

Professor Lindley-French (HC494, 2016, p.9)
UK DEFENCE EXPENDITURE 1985 – 2014
(ADJUSTED FORECAST FOR 2016)

Source: Adapted from House of Commons Select Committee (2016) HC494
Some Observations of the Case

ESTONIA

USA

GREECE

POLAND

UK
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PSCA ‘FOCUSED’ ILLUSTRATIONS

1. REPORTING DEFICITS AND DEBTS IN THE CONTEXT OF EMU & SGP
2. STOCK-FLOW ADJUSTMENTS (SFA)
3. ACHIEVING ‘NEAR BREAK EVEN’ (NBE)
4. KEEPING OBLIGATIONS OFF-BALANCE SHEET (OOBS)
1. USING PSCA TO MANIPULATE DEBT AND/OR DEFICIT

□ Typical circumstances of PSCA are ‘HARD’ financial targets with ‘SOFT’ accounting.

□ Meeting EMU requirements is a particularly strong example:
  – 95 & 96: 11 of 14 MS above EMU deficit level for one or both years
  – 97 & 98: 3 of 14 MS above EMU deficit level for one or both years

(Dafflon & Rossi, 1999, PC, p. 61)
Central Government Deficits in the Euro Area (1990-2007)
Source: adapted from Koen & van den Noord (2005, p. 5)
PSCA for EMU and SGP Targets

Dafflon & Rossi (1999, PC) – attempts by France, Belgium, Italy & Germany to reduce debt for EMU.

Montesinos & Vela (2000, FAM) – in Spain, deferral of budget obligations by contracting investments with pay on completion, PPPs, decentralise public debt by shifting to public corporations & local government.

PSCA for EMU and SGP Targets

Koen & van den Noord (2005, OECD) find that use of a/c gimmicks is strongly correlated to pre-adjusted deficits. E.g. proceeds of gold reserves; exceptional dividends; privatisations; securitisations; PFI deals; cutting maintenance spending; switching govt pension portfolios to government bonds; loan swaps to smaller nominal value bonds.

Milesi-Ferretti & Moriyama (2006, JBF) find strong correlations between reductions in debt and decline in assets from 1992-97 E.g. capital transfers to cover losses as financial transactions; privatisation; assets sales by securitization; PPPs.

Bernoth & Wolff (2008, SJPE) – find that EMU significantly reduces the impact of deficits on sovereign risk premia.
2. STOCK-FLOW ADJUSTMENTS

If all transactions and changes in value are included in surplus/deficit then we can equate (say) a deficit with change in borrowings: \[ D_t = B_t - B_{t-1} \]

However, the ‘deficit’ is not a comprehensive measure of all changes in debt, so there may be differences between \( D \) and \( \Delta B \) (known as the Stock-Flow Adjustment (SFA)). \[ SFA_t = B_t - B_{t-1} - D_t \]

A positive SFA implies that there are residual causes of increases in debt beyond those included in the deficit – these causes might include PSCA.
FINDINGS FROM STUDIES OF SFA

**Von Hagen & Wolff (2006, JBF)** – countries with surpluses tend to buy assets rather than reduce debt; those with $\Delta$debt above 3% use SFA to manage deficits (15 EU states from 80-03).

**Buti et al (2007, CES)** – SFA increase when deficits are above SGP threshold; elections affect all SFA items (25 EU states from 94-04).

**Weber (2012, IMF)** finds SFA to be significantly lower for countries with higher Transparency Index scores and higher for emerging economies than advanced economies (163 countries 1980-2010).
LIMITATIONS OF SFA STUDIES

Seiferling (2013, IMF) finds that there is no significant variance in SFA connected with fiscal transparency once controlled for banking crises, inflation and fiscal rules. Need to disentangle the elements of difference between deficit and ∆debt. Typically, the impact of differences in the detailed methods of accounting are not considered. An exception is Jesus & Jorge (2016, SAR) which examines differences between Portugal, Spain and Italy.
3. PSCA to Achieve Near Break-Even

- Spike in distribution of reported income > zero. 71.7% within 0.5% of BE after discretionary accruals, only 4.3% before adj.

Pilcher & van der Zahn (2010, FAM) – NSW L.G.
Unexpected depreciation is linked to higher losses and higher profits rather than NBE.

Pina et al (2012, PMM) – UK Executive Agencies
Earnings-increasing discretionary accruals are used mainly when pre-managed earnings are negative.
3. PSCA to Achieve Near Break-Even (adapted from Pina et al, 2012, p. 278)
3. PSCA to Achieve Near Break-Even

Ferreira et al (2013, PMR) – Portugese L.G.

There is a discontinuity of reported earnings around zero, earnings before DA is statistically significant. More earnings management for pre-election years in areas of strong political competition (but not after the elections).

Arcas & Marti (2016, AAR) – English L.G.

Almost all those with pre-managed deficits use income increasing accruals. Depr’n adjustment has biggest impact.
3. PSCA to Achieve Near Break-Even

Use of ‘big bath provisions’ (depn & FA write-offs) significantly greater where a deficit (over 5% of TA) exists and where large surplus (over 5%) exists. Change of political control and population size not significant.

Clemenceau & Soguel (2017, AE) – Swiss Cantons
Cantons with pre-managed surplus are more likely to apply additional depreciation charges (ADC). Finance ministers political ideology does not significantly affect use of ADC. Finance ministers who are trained economists more likely to use ADC.
Finnish Variation: Fabricated Sale of a Water Utility (WU) to Balance the Budget (Vinnari & Näsi (2008, FAM)

EC pays EUR 150m to buy WU: FV of WU net assets EUR 130m + goodwill of EUR 20m

OC provides EUR 150m through a debenture loan.

INTRA-GROUP SALE OF WATER UTILITY
4. OOBS

Hodges & Mellett (2003, PMR) – UK NHS
Accrual adjustments labelled as ‘merely technical’ e.g. fixed asset revaluations and depreciation. Entities more towards cash-based systems, e.g. ‘mutual insurance-type schemes for clinical negligence’; PFI for major capital investment.

e.g. reconstitute public entities to avoid consolidation into general government budgets; use of concessions / shadow toll for roads; general increase in Public Private Partnerships.
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CONCLUSIONS (1)

PSCA is not going away!

Many techniques of PSCA have been identified, but the drivers and extent of their use is still unclear.

Existing literature is of little use to standard-setters & regulators (Healy and Wahlen, 1999).

There is danger that research literature in this area becomes obsessed with distinctions in statistical / econometric technique rather than with matters of public policy.
CONCLUSIONS (2)

Calls for closer links between NA/GFS and GFR e.g. Jones (2000, FAM) with potential for improved capital / revenue distinctions.

Alternative approach would be to maintain separate and ‘nested’ forms of government accounting (Irwin, 2012, IMF).

Whichever approach is taken consistency of consolidation and provisioning e.g. for pensions and guarantees are key issues (Bergmann, 2014, PBAFM).
A FUTURE RESEARCH AGENDA?

1. Which particular accounting standards or rules are used to implement PSCA?

(a) Use our specialist knowledge as accounting academics to understand the techniques in use. What comprises the SFA or other reconciliations of accrual/cash based figures?

(b) As IPSAS adoption increases – how similar or different are the actual techniques in use. Recall that accrual accounting may not mean accrual accounting (Falkman and Tagesson, 2008, SJM)
A FUTURE RESEARCH AGENDA?

2. What factors limit the use & impact of PSCA?

There is the potential for more consistent accounting treatment and disclosures, and therefore for more comparative studies – within a country for particular sectors and also CIGAR.

Such studies might include both:

(a) Technical accounting issues: e.g. consolidation, measurement, provisioning esp. guarantees.

(b) Political and organizational issues – who controls and implements PSCA.
A FUTURE RESEARCH AGENDA?

3. What changing circumstances might affect / be affecting the implementation of PSCA?
   e.g. Austerity – everyone is in deficit now!
   e.g. Government borrowings – everything is ‘petty cash’ when compared to bank bail-outs!

4. Does it matter?
   Are social outcomes affected (for good or ill) as a result of PSCA affecting public resources allocation?
   Oh no… that question again! Who uses public sector financial information?
Thanks for listening... if you were!