Accounting-related research in PPPs/PFIs: present contributions and future opportunities

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Abstract

Purpose – The purpose of this paper is to review research investigating the implications of public private partnership (PPP) schemes for public investment, focusing on the role and effects of accounting as it relates to the assessment, management, control, reporting, accountability and policy direction of these arrangements. Based on this review, it aims to offer reflections on future directions for this research agenda.

Design/methodology/approach – This paper derives five research themes adapted from the PPP research agenda outlined by Broadbent and Laughlin as a framework to guide a literature-based analysis and critique of the relevant PPP literature published up to December 2010.

Findings – The review highlights the range of interesting contributions that extant accounting-related research has made to current knowledge about PPP policy and procedure. From this, concentrations of research effort are identified (its largely technical, critical, procurement-oriented and Anglo-centric focus), and opportunities for future research are proposed. With regard to the latter, the opportunities proffered have in common a need to question the nature and functioning of PPPs, consider the complexities of PPPs in action, and explore connections between research and practice.

Originality/value – The main contributions this paper makes relate to understanding the "state of the art" of accounting-related PPP research, the progress this research agenda has made in line with Broadbent and Laughlin's agenda, as well as insights into fruitful directions future research could take.

Keywords Public private partnership, Private finance initiative, Public sector accounting, Public sector investment, Value for money, Private finance, Partnership

Paper type Literature review

1. Introduction

It has been over a decade since Broadbent and Laughlin initially outlined a research agenda for considering private finance initiative (PFI)/public private partnership (PPP) schemes (see Broadbent and Laughlin (1999), later refined in Broadbent and Laughlin (2004))[1]. In response to growth in such schemes in the UK at the time (see Figure 1), a renewed British impetus for partnership coinciding with the election of the Blair "New Labour" government in 1997 (Commission on Public Private Partnerships, 2001), and a later recognition that growth in the engagement of PPPs for public services could also be

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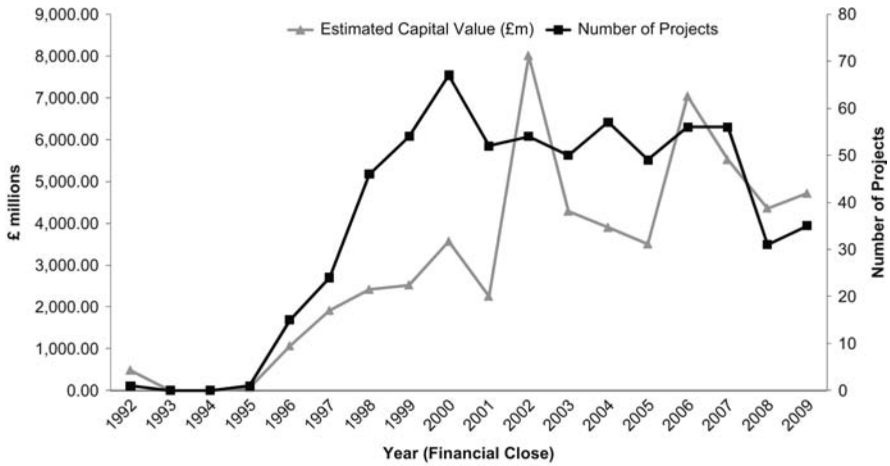

Notes: The data for this graph were compiled from the latest available Infrastructure UK published spreadsheet of signed PPP/PFI projects (see http://www.hm-treasury.gov.uk/d/pfi_signed_projects_list.xls (Accessed 21 March 2011). UK data are reported because it was mainly British developments in PPP schemes that inform the development of Broadbent and Laughlin's research agenda

Figure 1. Number and estimated capital value of UK PFI/PPP schemes reaching financial close (1992-2009)

observed in many jurisdictions around the world, Broadbent and Laughlin (1999, 2004) sought to stimulate academic inquiry into the diverse implications of PPP schemes by outlining an accounting-related research agenda for policy (described as "macro" implications) organization-level control and practice ("micro" implications), and linkages between these dimensions ("macro"/"micro" interface).

In aid of this, Broadbent and Laughlin (1999, 2004) outline a range of pertinent research issues relating to PPP schemes warranting further investigation, as outlined in Table I. Using a combined adaptation of the scholarly agenda outlined in Broadbent and Laughlin (1999, 2004) as a guiding framework, this paper reviews and critiques accounting-related research investigating the implications of PPP schemes for public investment. In particular, this review concentrates on research contributions aimed at further understanding role and effects of accounting matters in a broad sense (e.g. techniques, policy, concepts, and/or values) as it relates to the assessment, management, control, reporting, accountability and associated institutional and policy directions connected to these schemes. The Broadbent and Laughlin (1999, 2004) research agenda offered a useful framework for organising this review, as it presents a broad-scoped research agenda encompassing issues important to both PPP policy and practice, as well as being highly relevant to public debates sustained about the drivers, use and value of PPP schemes. As such, it provided a simple but effective means for deriving themes to guide analysis and critique of the extant literature in an academically and practically relevant way. For these reasons, this review focuses on five research themes adapted from the Broadbent and Laughlin (1999, 2004) research agenda, being:

(1) the underlying nature and rationale for PPPs;

(2) processes and procedures aiding decisions to undertake PPPs;

(3) processes and procedures for *ex post* evaluations of PPPs;

Table I.
Research agenda from Broadbent and Laughlin

Broadbent and Laughlin (1999)	Broadbent and Laughlin (2004)
1. Is PFI a form of privatisation of the public sector? 2. What is the nature of PFI and who is regulating its application? 3. How are definitions of PFI in terms of value for money and risk transfer derived and operationalised? 4. How are PFI decisions made in different areas of the public sector and what are the effects of these decisions? 5 What is the merit and worth of PFI?	1. What is the underlying nature of and rationale for deciding to pursue PPP developments in different countries? 2. What processes and procedures guide and aid the decisions to undertake PPPs in different areas of public service provision in different countries? 3. What procedures and processes are in place to provide a post project (decision) evaluation (PPE) in different areas and in different countries? 4. Do PPPs have real merit and worth, generally and in specific cases, nationally and internationally? 5. What can we discover through an international comparison of national PPP regulation and guidance, pre-decision processes, post-project evaluation systems and merit-and-worth judgments?

Sources: Broadbent and Laughlin (1999, 2004)

(4) the merit and worth of PPPs; and

(5) PPP regulation and guidance.

The substance of each of these themes will be described as they are addressed.

This review/critique of the literature is both timely and important for the consolidation of knowledge and the growth of research in this area. In the intervening years since Broadbent and Laughlin (1999), a significant body of work has accumulated, examining a range of matters that follow on from Broadbent and Laughlin's research agenda. Over this time, PPP schemes have also attracted a lot of public attention regarding their appropriateness for public service provision. As the latest manifestation of new public management (NPM) reform (Hood, 1991, 1995), PPPs have been popularised as a facilitator of public service improvements in line with progressive government, resulting in their proliferation in many countries across the world. At the same time, PPP schemes have been vigorously criticised for further embedding private-sector values in public sector policy and practice. Further, the effects of the global financial crisis has seriously impacted the availability of private financing for PPP schemes (Farquharson and Encinas, 2010; Infrastructure Partnerships Australia, 2009; KPMG, 2009), leading some to question the viability of the "PPP model" going forward, despite the fact that many governments remain interested in exploring partnership opportunities. Given these developments, synthesising the substantive contributions of research in this area presents an important opportunity for reflection, to consider the legacies and potential future directions of this research.

The rest of this paper is structured as follows. Section 2 presents a review of the extant literature, outlining the contributions made to each of five themes identified previously. Sensitised by the PPP five research themes mobilised and drawing from observations about directions that the literature has taken to date, Section 3 presents a commentary on opportunities that future accounting-related PPP research could fruitfully pursue. Section 4 presents concluding comments.

2. Literature review: what have we learned about PPP schemes?

This section reviews the extant literature investigating accounting-related matters (as characterised in the Introduction) in the context of PPPs, organised by the five research themes outlined previously. The search for relevant papers for this review passed three main stages. First, an extensive online search of scholarly accounting journals was undertaken up to December 2010. The list of journals searched:

- *Abacus*.
- *Accounting and Business Research* (*ABR*).
- *Accounting and Finance*.
- *Accounting and the Public Interest*.
- *Accounting, Auditing & Accountability Journal* (*AAAJ*).
- *Accounting Forum*.
- *Accounting Horizons*.
- *Accounting, Organizations and Society* (*AOS*).
- *Accounting Research Journal*.
- *Australian Accounting Review* (*AAR*).
- *Contemporary Accounting Research*.
- *Critical Perspectives on Accounting* (*CPA*).
- *Financial Accountability and Management* (*FAM*).
- *Journal of Accounting and Public Policy*.
- *Journal of Accounting and Economics*.
- *Journal of Accounting Literature*.
- *Journal of Accounting Research*.
- *Journal of Business Finance and Accounting*.
- *Journal of International Accounting Research*.
- *Journal of Management Accounting Research*.
- *Management Accounting Research*.
- *Pacific Accounting Review*.
- *The Accounting Review*.
- *The British Accounting Review*.
- *The European Accounting Review* (*EAR*).

Papers of interest to this review were also likely to be published in journals outside of the accounting literature (such as in public management and administration journals). So in addition, several databases (ABI/INFORM Global, EBSCO Business Source Premier, Emerald, JSTOR, and Science Direct) and Google Scholar were searched to locate such articles in an attempt to draw together as comprehensive a set of relevant literature as possible. In all, 97 publications were identified for inclusion in this review, reflecting the contributions of 107 (co-)authors over a period of 14 years (refer to Figure A1 of the Appendix for the most frequent (co-)authors appearing in this literature), and sourced from a range of accounting journals and non-accounting publications (see Figure A2 of the Appendix). An interesting point to note about the sources reported is the proportion of this work published in "non-accounting" outlets (60 per cent), comprising publications focusing on public sector administration/management/policy (e.g. *Public Administration* and *Public Money & Management*), as well as other outlets further afield (e.g. *Human Relations*, *International Journal of Project Management*, and *BMJ*). This perhaps indicates that interest in issues relating to Broadbent and Laughlin's research agenda extend beyond accounting academe, which is encouraging. Perhaps unsurprisingly, Figure A2 of the Appendix also reports that the papers published in accounting journals were all located in non-US outlets. Reasons for this may be two-fold. First, while PPPs have been utilised in the USA in transport, technology, water, prisons, health and welfare, and urban regeneration (Grimsey and Lewis, 2004), interest in such schemes has been described as muted and variable (Broadbent and Laughlin, 2004), although government policy and regulatory developments in recent times are attempting to change this (PricewaterhouseCoopers, 2010). Second, much of work reviewed here is substantively and methodologically distinct from the style of research typically accepted by the US accounting journals. As indicated by Figure A3 of the Appendix, the most popular research methods in this domain have been some form commentary/normative analysis (26 per cent), case/field study (26 per cent), or archival/content analysis (24 per cent, much of which is qualitatively oriented) – methods that are not in keeping with the penchant of North American accounting journals for publishing "empirical tests of economics-based models using large, archival data sets" (Merchant, 2010, p. 116). The popularity of commentary/normative analysis is also noteworthy. Such "armchair theorising" (Broadbent and Guthrie, 1992), while important for driving debate, can only make a limited contribution to public policy development without complementary empirical research, particularly given recent calls for more evidence-based policy (Broadbent and Guthrie, 2007). Echoing concern raised by Broadbent and Guthrie (2007) about public sector accounting research more generally, a continuing emphasis on commentary/normative publications could place the relevance and contribution of academic work to PPP policy and practice at risk. Another remarkable element of the literature is that only 29 per cent of the papers reviewed explicitly specify some form of theoretically informed analysis (see Figure A4 of the Appendix). Also, the geographic orientation of this literature stands out. Figure A5 of the Appendix shows that 60 per cent of the extant literature focused on PPP developments and experiences in the UK. While this might be expected given the relatively high profile of PPP use and debate in this jurisdiction, and the location of the most prolific authors in this area (see Figure A1, Appendix), it means that the extant literature has largely overlooked PPP developments elsewhere in the world particularly in non-Anglo domains, which are considered in only 7 per cent of the papers reviewed.

The analysis of accounting-related research in PPPs just presented provides a descriptive snapshot of the "landscape" of this literature. The following sections take this preliminary analysis further, by examining in more detail the substantive contributions that this literature makes to the five research themes adapted from Broadbent and Laughlin's (1999, 2004) research agenda.

2.1 Nature of and rationale for PPPs

In relation to the nature of and rationale for PPPs, Broadbent and Laughlin (1999, 2004) indicated a need to better appreciate the reasons behind their use. Further, they considered that knowledge about such matters would shed light on political, structural and other elements that enable/constrain PPP developments in various countries, and perhaps provide further insight on the diffusion of PPP concepts from one jurisdiction to another.

Explicit consideration of the nature of PPPs is provided by Linder (1999) and Maguire and Malinovitch (2004). Informed by various contextual changes and neoliberal/neo-conservative premises that are arguably connected to the use of the term PPP, Linder (1999) acknowledges six distinct but overlapping meanings attributed to how PPPs are discussed, promoted and understood. These are:

(1) PPP as management reform.

(2) PPP as problem conversion.

(3) PPP as moral regeneration.

(4) PPP as risk shifting.

(5) PPP as restructuring public service.

(6) PPP as power sharing.

According to Linder (1999), each of these makes "a claim about what partnerships are and conveys an understanding of their intended purpose and significance" (Linder, 1999, p. 42). In unpacking these meanings, Linder (1999) also critiques of the nature of PPPs, by scrutinising their underlying (neoconservative/neoliberal) premises and how the notion of "partnership" renders commercial participation in the public domain more palatable. Maguire and Malinovitch (2004) present a more evolutionary depiction of the nature of PPPs through their review of partnership arrangements in Victoria, Australia. The authors identify three distinct periods of PPP evolution. Initially (from the late 1980s to 1992), PPPs were framed as a method for achieving off-balance sheet financing to provide relief from government borrowing limits. The second phase (1993-1999), prompted by prior inadequacies, re-focused PPPs on efficiencies achievable through competitive tendering, private involvement, and maximum risk transfers. Subsequent concerns about the lack of transparent economic and social analysis led to a third phase (2000 to present), where PPP objectives were broadened through the notion of "value for money" (VFM)[2]. Together, Linder (1999) and Maguire and Malinovitch (2004) provide insight into pluralistic/changeable characterisations of PPPs at a conceptual (macro) level, and how they have contributed to an enduring appeal for such schemes over time.

Closely related to conceptualising the nature of PPPs is the rationale for such arrangements. McQuaid and Scherrer (2010) and Spackman (2002) both outline a range of arguments commonly put forward in favour of PPPs schemes, as outlined in Table II. Spackman (2002) critically reflects on such rationales and generally considers them unsatisfactory to justify the use of PPPs. However, Spackman posits three further rationales he considers more compelling. First, monitoring requirements are likely to be more robust due to the introduction of private finance. Second, contractors are tied to a longer-term capital investment, making private partners more committed to the

Spackman (2002)	Additional arguments from McQuaid and Scherrer (2010)
1. Easing budgetary pressures faced by governments through off-balance sheet financing	1. Private sector efficiency, innovation, competition and choice
2. Bypassing controls on public sector investment to address neglected public infrastructure problems	2. Whole-of-life and performance oriented management
3. Evading formal constraints on borrowing and spending faced by governments	3. Economies of scale
4. Achieving semi-privatisation via the self-financing of PPPs	4. Reducing the overall tax burden
5. Enabling more rapid infrastructure improvement in comparison to publicly financed initiatives	5. Spreading risks across parties
	6. Leveraging public asset values

Table II.
Common arguments offered in support of PPP schemes

enduring success of a partnership scheme. Third, PPPs focus planning on "whole of life" costing, and thus the effects of design alternatives on VFM in the longer term.

Other authors offer alternative views to the commonly espoused rationales. Broadbent and Laughlin (2005a, p. 77) rationalise PPPs as part of a public sector drive to "modernise", defined as government attempts to "progress". Informed by the experiences of the UK's National Health Service (NHS), Broadbent and Laughlin (2005a) frame PPPs as both a product and an enabler of public sector "modernisation", by aligning public investment with the ideals of NPM, and further embedding accounting-oriented ways of thinking about public investment in the face of capital rationing and efficiency concerns. English and Guthrie (2003) focus on institutional elements (in Australia) that have influenced rationales for PPP schemes, highlighting a number of "steering media"[3] (encompassing different levels of government and associated agencies) that have arguably influenced the development of macro- and micro-level "steering mechanisms"[4] (e.g. government borrowing limits, debt reduction programs and VFM criteria) that condition how public investment decisions are structured and evaluated. English and Guthrie (2003) note that many of these steering media/mechanisms have developed in a manner favourable to the pursuit of PPPs, and that certain factors (e.g. complexity of PPP documentation, commercial-in-confidence clauses, lack of transparency) have constrained the influence of other important steering media like Auditors General and parliamentary committees, leaving Australian governments and associated authorities largely unfettered in controlling PPP policy, assessment and regulation. Newberry and Pallot (2003) and Newberry (2004) present further, critical reflections on the influence of such steering media/mechanisms. Newberry and Pallot (2003, p. 467) aim to explain "the structures and rules built into the New Zealand government's financial management system which encourage entry into commitments such as public private partnerships". Rather than providing promised improvements to fiscal responsibility and transparency, such reforms have arguably embedded biases favourable to PPPs, by unduly constraining public sector borrowing, obscuring scrutiny of public investment decisions through "off-balance sheet" treatment, and creating conditions that surreptitiously position PPPs as more efficient/attractive than publicly procured alternatives. Newberry (2004) extends such reflections by critiquing the role of supranational entities (e.g. World Bank, International Monetary Fund, and the International Federation Accountants) in driving such legislative and regulatory reforms at a national level, inferring that PPPs are more an effect of privatising public policy biases derived from international pressures than a policy development based on merit. Petersen (2010) contrasts the above institutional/regulatory agenda with the Danish experience, where PPP activity has been significantly constrained by several context-specific impediments, despite central government interest in them. Claimed impediments include strong public finances, a long tradition of public delivery of services, prevailing tax regulations, and a regulatory need to reserve the capital value of private projects. Significant disagreement and a lack of determinism on the part of Danish government authorities to resolve such impediments indicates to Petersen that uncertainty and scepticism about the espoused benefits of PPPs persists within the Danish public sector. Petersen's findings also contest the inevitability of "privatising" influences highlighted by likes of English and Guthrie (2003), Newberry and Pallot (2003) and Newberry (2004).

Shaoul *et al.* (2007a) and Asenova and Beck (2010) present further critiques of the influences shaping the rationale for PPP schemes. Shaoul *et al.* (2007a) discuss the pervasiveness of private participation in PPP procurement policy, evaluation methodology, specific project appraisal, advising private tenders, international lobbying for PPP development, sponsoring research on PPPs, and having a stake (as investors or subcontractors) in specific PPP deals. Such extensive accommodation of private interests in PPP matters has arguably fostered social networks that further compel the proliferation of such schemes and create significant biases and conflicts of interest in policy development and management. In a similar vein, Asenova and Beck (2010) criticise the influence of private financiers in PPP procurement. Characterising PPPs as being about the introduction of "safe" private investments to a market lacking such opportunities, the authors argue that the terms of a PPP agreement are ultimately shaped by the risk/return expectations of private financiers over public stakeholder needs. As such, Asenova and Beck (2010), like Shaoul *et al.* (2007a), see serious problems with who effectively controls and what ostensibly motivates PPP policy, and the implications this has for democratic government and accountability.

In summary, these papers provide interesting insights into the nature and rationale of PPPs, particularly at a macro level. By highlighting the different ways in which PPPs have been mobilised and discussed, and the changing motivations behind them, attention is focused on the evolving nature of these schemes. Collectively, these papers also provide a vocal critique of the "privatising" influences that have furthered the cause for PPPs. Claims of bias, irrationality and lack of transparency are attributed to the "steering intent" (English and Guthrie, 2003) of institutional influences, related financial/administrative reforms, and private interests bearing on PPP policy. As such, these papers offer an appreciation of the institutional, structural, and interest-based elements shaping PPP developments.

2.2 Processes and procedures aiding decisions to undertake PPPs

Literature grouped under this theme concentrates on decision-making processes and tools used to assess the viability of proposed PPP schemes. Government guidance developed in the UK, Australia, and other jurisdictions generally directs that PPPs should be assessed according to their relative VFM, which is commonly described as "the optimum combination of cost and quality in meeting the needs of service users" (Commission on Public Private Partnerships, 2001, p. 32). It is often asserted that a significant contributor to VFM is the transfer of appropriate project risks to private sector parties. Broadbent and Laughlin (1999, 2004) considered VFM and risk transfer to be major research issues relating to PPP schemes, believing that there was considerable uncertainty over the meaning and application of these concepts. They urged researchers to examine how interpretations of VFM and risk could vary over time, in relation to a variety of government services and across jurisdictions. They also encouraged further understanding of who/what is key in settling on VFM assessments, and how well micro-level attention to VFM/risk links back to macro (fiscal) concerns.

To start with, Demirag and Khadaroo (2008) provide some preliminary insight into the complexity of what VFM means in given times and places. From their case studies of school PPP schemes in Northern Ireland, Demirag and Khadaroo (2008) highlighted how relevant stakeholders expressed different and often conflicting views regarding what a VFM outcome would/should represent. As further explained later, Demirag and Khadaroo (2008) also suggest that what constitutes VFM is conditioned by how cultures, forms and mechanisms of accountability manifest in a given PPP setting. Unfortunately, an appreciation of the implications of situated meanings for VFM beyond that offered by Demirag and Khadaroo (2008) remains underdeveloped within the extant literature. Instead, research efforts have focused much more on a range of issues to do with methods of VFM assessment. For instance, a matter raised by Officer (2004) is the determination of appropriate VFM assessment criteria. The economic concept of comparative advantage is presented as a normative basis for determining such criteria, asserting that the public sector has a comparative advantage in managing resources with blurred contract/property rights, while the private sector is deemed better at managing resources where contract/property rights are more clearly definable. Another matter of interest relating to VFM is the quantitative techniques used for assessing the same, which is taken up by Grimsey and Lewis (2005). From an overview of practices in 29 countries, Grimsey and Lewis identify four broad approaches for calculating VFM. In addition, they draw four core elements commonly associated with the Public Sector Comparator (PSC) approach (the approach given most attention in academic and practitioner literatures) from British and Australian experience (see Table III).

Further to this, a range of papers criticise VFM assessments and associated calculations, as summarised in Table IV. Although these papers mainly focus on British experiences, they consider the involvement of VFM assessments in a range of public service settings, such as health, education, transport, and correctional services.

Many of these papers find fault with VFM calculations (particularly in relation to the PSC), such as their sensitivity to underlying assumptions and the chosen discount rate (Cooper and Taylor, 2005; Shaoul, 2002)[5], the absence of credible project affordability analyses (Froud and Shaoul, 2001; Shaoul, 2002, 2005), the incompleteness of these calculations (e.g. not fully considering PPP transactions costs, possibilities for private investor tax planning, and/or financial effects of public sector manager innovation (Coulson, 2008)), and the tentative nature of these calculations given their pre-occupation with the value of risks/risk transfers (Heald, 2003; Khadaroo, 2008; Shaoul, 2005), as well as the long time horizons involved (Froud and Shaoul, 2001;

Identified approaches for calculating VFM	Identified core elements for PSC approaches
1. Full cost-benefit analysis 2. Assessment against a "public-sector comparator" (PSC)[a] before tenders/expressions of interest from the private sector are called 3. PSC tests conducted after bids are received 4. Reliance on achieving VFM from competitive pressures facilitated by a the bidding process	1. Full assessment of all capital, operating and other costs associated with public sector delivery to the same standard of performance expected from the proposed PPP (base costs/raw PSC) 2. Value of risk transferrable to the private sector 3. Value of risk likely to be retained by the public sector 4. Competitive neutrality adjustments to take out advantages a government entity may enjoy due to public ownership

Note: [a] A public sector comparator is defined as "the calculation of the benchmark cost of providing a specified service under traditional (public sector) procurement" (Grimsey and Lewis, 2005, p. 3). As part of the VFM assessment, a PSC is used as a hypothetical point of comparison with respect to the costs associated with providing a specified public service via a PPP

Table III. VFM calculation elements identified by Grimsey and Lewis (2005)

Shaoul, 2002, 2005). Lament is also expressed for the arguably dominant position of VFM calculations, because they ostensibly lead to inadequate attention being given to broader social costs and benefits (Andrew and Cahill, 2009; Cooper and Taylor, 2005), wider funding/resource implications and sector-wide effects (Froud and Shaoul, 2001; Heald, 2003; Khadaroo, 2008), and the wealth distribution impacts (Shaoul, 2005) of proposed PPP schemes. The supposed pre-occupation with financial calculation is further criticised for the values it promotes. Citing a broader political context and vested interests (such as private consultants involved)[6], VFM calculations are condemned for presenting a veneer of rationality, when they potentially:

- support an underlying neo-liberal agenda to promote PPP schemes (Heald, 2003);
- privilege a shareholder-oriented perspective in public investment decisions, as if government were simply another economic actor (Cooper and Taylor, 2005; Froud and Shaoul, 2001; Shaoul, 2002);
- sustain underlying political agendas like staff reductions, workplace reforms and funding cuts to public services (Andrew and Cahill, 2009; Cooper and Taylor, 2005); and
- promote the redistribution of wealth from the public to a financial elite (those who will profit from a PPP scheme) (Shaoul, 2005).

Similar to Newberry and Pallot's (2003) and Newberry's (2004) earlier criticisms of government financial reforms, these papers challenge the technical appearance of VFM calculations – they are considered partial, politically motivated, and malleable enough to aid the achievement of particular ends.

As indicated earlier, strongly associated with VFM are considerations related to risk management and transfer. As such, research has considered the implications of risk management practices in PPPs, particularly in relation to the assessment and contracting of proposed schemes. In particular, a number of papers have sought

Paper	Focus	Expressed criticisms
Andrew and Cahill (2009)	Prisons (New South Wales (Aus))	Cost information given privileged status in public inquiry on VFM Cost data used was limited, partial and based on unverifiable assumptions Use of flawed cost information partially explained by a neo-liberal turn in policy making and an associated political agenda of workplace reform in the sector
Cooper and Taylor (2005)	Prisons (Scotland)	Assumptions and omissions typically associated with VFM calculations are value-laden VFM calculations fail to capture broader social costs and benefits as part of VFM VFM calculations politically engineered to support underlying agenda to reduce staff numbers and cut funding Involvement of private consultants in VFM assessments/calculations (who have a vested interest in promoting PPPs) undermine the legitimacy of the same
Coulson (2008)	PPP policy (UK)	Doubts whether PPP transaction costs are fully considered in VFM calculations VFM calculations do not address possibilities for tax planning open to sophisticated private investors VFM calculations are based on current standards of conventional procurement. Discourages the possibility of public sector managers considering innovative practices
Edwards and Shaoul (2003b)	Schools (UK)	Appraisal methodology ignores distribution of how costs are borne where multiple public parties are affected The case for VFM for a government authority can be made (albeit inadvertently) at the expense of third parties (e.g. local education authority v school, staff and pupils)
Froud and Shaoul (2001)	Hospitals (UK)	VFM calculations are limited by their focus on quantifiable costs/benefits VFM calculations are value-laden, promoting a shareholder view of PPP viability Insufficient recognition given to broader funding/resource implications of PPPs Affordability considerations are underweighted and ambiguously demonstrated
Heald (2003)	PPP policy (UK)	Broader political influences make the rationality of VFM assessments questionable

(continued)

Table IV.
Expressed criticisms of VFM assessments and calculation

Paper	Focus	Expressed criticisms
		VFM should take a whole-of-public-sector/taxpayer view
		VFM should be tentatively treated, given the long-term nature of PPP schemes
		The pre-occupation with risk sharing for off-balance sheet treatment encourages opportunistic risk assessment
Khadaroo (2008)	Schools (Northern Ireland)	PPP procurement process dominated by the bid/PSC comparison, despite identified financial benefits being marginal and reliant on risk transfers
		Non-financial elements were considered, but were subjective and arbitrary
		Inadequate attention paid to other strategic issues (e.g. effects on other schools, public sector portfolios, and future users/taxpayers)
Shaoul (2002)	London Underground PPP (UK)	Success of risk transfer methodologies are far from proven
		Fails to take into consideration additional risks potentially caused by a proposed PPP
		Focuses on a shareholder-oriented view of assessment
		VFM sensitive to small changes in the discount rate
		No recognised methodology for determining affordability
		Difficulties in estimating costs over a 30 year period (typical concession period).
Shaoul (2005)	Hospitals (UK)	VFM/risk transfers are intuitively appealing but ambiguous to assess in practice
		Too much importance placed on the value of risk transfers
		Insufficient attention paid to affordability considerations
		VFM predominantly financially focused
		VFM assessments and associated calculations promotes redistribution of wealth to financial elite. Better assessment of distributive impacts needed

Table IV.

(among other things) to outline the range of risks commonly identified with PPP schemes, the results of which are listed in Table V.

Table V shows that a relatively common collection of risks (e.g. technical, construction, operating, technological/obsolescence, revenue, financial (credit, liquidity, interest rate), *force majeure*[7], legislative, political, environmental and project default risks) have been identified, reflecting accumulated wisdom that has emerged about the types of project-focused risks taken into account in relation to proposed PPP schemes. There are, however, some interesting additions to the typical project-focused risks. Quiggin (2004) and Stanley and Hensher (2004) identify

Table V.
Identified risks related to PPPs

Paper	Focus	Identified risk categories		
Asenova and Beck (2003a)	PPP financiers (UK)	Performance-related General financial Time Cost	Legal Construction Technical	Technological obsolescence Design Volume
Grimsey and Lewis (2002a)	PPP infrastructure projects (UK)	Technical Construction Operating	Revenue Financial *Force majeure*	Regulatory/ political Environmental Project default
Hodge (2004a, b)	PPP toll road (Aus)	Design and Development Operation	Construction Ownership	Finance
Ke *et al.* (2010)	PPP projects (China)	Corruption Government's intervention Expropriation and nationalization Government's reliability Third party reliability Public/political opposition Immature juristic system Change in law Interest rate Foreign exchange and convertibility Inflation Poor political decision-making	Land acquisition Approval and permit Improper contracts Financial risk Construction/operation changes Construction completion Delay in supply Technology risk Ground/weather conditions Operation cost overrun Competition (exclusive right) Market demand change	Payment risk Supporting utilities risk Residual assets risk Uncompetitive tender Consortium inability *Force majeure* Organizations and coordination risk Tax regulation changes Environmental protection Private investor change Subjective evaluation Insufficient financial audit
Li *et al.* (2005a)	PPP construction projects (UK)	Political/ government policy Macroeconomic Legal Social Natural	Project selection Project finance Residual Design	Construction Operation Relationship Third party
Lilley and De Giorgio (2004)	PPP infrastructure projects (Aus)	Patronage and revenue Design and construction Operating and maintenance	Technology/obsolescence Legislative Finance	Political Approval Network
Quiggin (2004)	PPP policy (Aus)	Construction Operation Service specification	Demand or market Regulatory	Systematic or idiosyncratic demand

consideration of "network risk", which relates to how well a proposed PPP scheme will integrate into existing infrastructure (e.g. the success of a toll road PPP will depend on how well connected it is to other major arterial routes). Hodge (2004a, b, p. 174) asserts that the pursuit of "immediate policy solutions" by a public authority can result in quick project delivery being prioritised over due process and public policy considerations, leaving governments exposed to "governance risk". Ke *et al.* (2010) highlight some risks more specifically related to political conditions in China (such as corruption, government intervention, expropriation and nationalisation and government reliability), indicating some international variability in PPP risk matters.

A related set of papers consider practices and priorities for identifying, assessing and managing risks associated with proposed PPP schemes. With regard to identification/assessment practices, both Asenova and Beck (2003a) and Akintoye and Chinyio (2005) report the use of previous experience[8], external consultants, intuition, site visits, financial modelling, and "risk prompts" (e.g. checklists and risk registers). In terms of the risk priorities and their effect on risk identification/assessment of PPP stakeholders, the literature presents contrary evidence. Grimsey and Lewis (2002a) highlight from their case study of a waste water management PPP that there can be distinct emphases in the risk priorities and hence analysis approaches of different PPP stakeholders[9]. Demirag *et al.* (2010) and Gao and Handley-Schachler (2004) suggest that public sector bodies show themselves to be more risk averse than their private counterparts, perhaps reflecting a need to safeguard public funds and/or a lack of experience in risk matters. However, Gallimore *et al.* (1997) assert from their survey evidence that differences in the relative importance and uncertainty attached to different risks may not be as significant as one might expect. Notwithstanding this contrary evidence, understanding the presence and effect of differing risk priorities is considered to be important, as Asenova and Beck (2003a) and Grimsey and Lewis (2002a) assert that conflicting perceptions need to be reconciled in practice, complicating risk identification/assessment efforts. In terms of managing risks, Asenova and Beck (2003a) and Demirag *et al.* (2010) report evidence of private financiers' practices, and indicate a variety of strategies in use including choosing familiar project types, passing risks through to subcontractors, negotiating and enforcing contractual conditions, maintaining step-in rights, insurance, financial and hedging instruments, expert advice, modelling to achieve investment grading, and project monitoring. From a public sector perspective, evidence from Ahadzi and Bowles (2004), Hood and McGarvey (2002) and Gao and Handley-Schachler (2004) indicates that public bodies have been more likely to avoid risk exposures and seek certainty in PPP cash flows due to their relative inexperience in negotiating and managing risks, although English and Guthrie (2003) asserts from Australian evidence that public authorities have improved in this regard. Research has also highlighted the changeability of risk assessment and management practices. Akintoye and Chinyio (2005) observe that emphasis on risk assessment approaches can change as PPP procurement progresses, with quantitative techniques becoming more relevant in later stages of tendering. At a more macro level, English (2005) illustrates via the case of the failed LaTrobe Regional Hospital (Australia) that changing PPP priorities arising from earlier described shifts in steering mechanisms (e.g. from a focus on off-balance sheet financing to VFM) can change PPP risk management objectives and priorities, with implications for a public partner's approach to risk allocation and management.

Quiggin (2004), Li *et al.* (2005a) and Lonsdale (2005a) add to risk considerations by focusing on optimal risk transfers between PPP parties. Both Quiggin (2004) and Li *et al.* (2005a) show similarities in what they consider to be appropriate risk transfers, indicating that many project-specific risks (e.g. construction, financing, design and operation-related) should be transferred to private partner, while other macro-level risks (e.g. regulatory, network and political) should be retained by government. Additionally, Quiggin (2004) and Li *et al.* (2005a) both argue that there are a range of risks where the appropriate balance of responsibility will be situationally defined. On the whole, these suggestions reflect received wisdom on the relative ability of private and public partners to influence either the occurrence and/or the consequences of certain risks. Lonsdale (2005a) takes a broader and more conceptual approach to this issue by utilising transaction cost economics, to outline circumstances where risk transfers are likely to be effective, which include low asset specificity, low switching costs, and less uncertainty. However, Lonsdale (2005a) notes that such circumstances are odds with the characteristics of typical PPPs (e.g. high asset specificity and switching costs, long term contracts, bundled service requirements), leading the author recommend that PPPs be rethought so that effective risk transfers can be sustained.

Further to the matter of risk is a concentration of research taking issue with the involvement of risk in VFM assessments. A section of this research focuses on difficulties in operationalising PPP risk management in practice. For instance, English and Walker (2004) show via their analysis of the failed Deer Park Prison PPP in Australia that risk management can be complicated by difficulties in measuring some risks in dollar terms, problems with enforcing agreed risk transfers, changes in the nature and economic effects of risks over time, and the potential for initial risk assessments to underweight/ignore important (typically non-financial) risks. Edwards and Shaoul (2003a) add that political context, powerful private parties, relationship building priorities, and a scarcity of alternative partners makes enforcing agreed risk transfers problematic. Edwards and Shaoul (2003b) show, though evidence from a failed UK schools PPP, that the consequences of risks intended to be transferred to a private partner can unintentionally be borne by third parties (in this case the schools, staff and pupils involved). Shaoul (2003) argues from the experiences of the UKs failed National Air Traffic Services PPP that contracted risk transfers are largely ineffective and inappropriate where a PPP involves an essential public service that cannot be allowed to fail. And Edwards *et al.* (2004) illustrates via evidence from UK roads and hospitals projects that PPPs can in fact create new/additional risks for public sector partners. Collectively, these papers demonstrate how and why *ex ante* risk assessments/transfers may not be easily realised, and consequently lead to questioning about the ability of public partners to effectively transfer risks as intended.

Another area of focus in this literary critique of risk is the supposed dominance of "technicist"/quantified approaches to risk assessment. Froud (2003) asserts that "technicist"/quantified approaches skew what is "counted" as a risk (i.e. what can be monetarised), and disregards problems arising in these calculations because they are largely applied to irregular decisions. Froud (2003) also expresses concern for the contractual means applied to managing/transferring risks in PPP schemes, as it concentrates the impacts of unknown/unacknowledged risks in public sector hands and circumscribes government's long-term capacity to respond to and shape future uncertainties. Broadbent *et al.* (2008) adds to Froud's (2003) concerns by arguing that the preoccupation with quantifying risks will be difficult to challenge, despite its many problems, as PPP assessments are captive to an accounting logic grounded in society's fixation with "the power and importance of measurement" (p. 33).

All together, the above papers make important contributions to our understanding of processes and procedures aiding the assessment of VFM and risks. They provide a sense of how macro policy agendas (arguably favouring privatising initiatives like PPPs) are being embedded in the practice of PPP assessment through accounting and risk calculations. They shed light on the approaches and techniques often applied to the assessment of VFM and the management of associated risks. Some papers also tender more normative opinion on how elements of VFM assessment/risk management should be performed to achieve optimal outcomes. Much of the work in this area has a distinctly critical theme. Weaknesses and complications arising from an emphasis on quantified techniques for VFM assessment/risk management are identified. Practical shortcomings and ideological biases of VFM and risk transfer practices are also presented. Such criticisms are offered to signal the ability of these practices to legitimate decisions in aid of other agendas. As such, the view communicated through a large proportion of these papers is that while proposed PPP schemes should be assessed according to their capacity to provide overall public benefit, the (predominantly quantified) manner in which they are assessed can often lead to suboptimal outcomes in this regard.

2.3 Processes and procedures for ex post *evaluations of PPPs*

This section is devoted to papers that have sought to address *ex post* evaluation practices associated with PPP schemes. Broadbent and Laughlin (2004, p. 8) note that while considerable effort has been expended in formulating pre-decision criteria for assessing PPP schemes, far less attention has been afforded to evaluating such schemes both during and following their delivery. Broadbent and Laughlin (2004, p. 8) consider this a significant gap in knowledge and practice. In their words, "having exhaustively explored whether to pursue a PPP, it seems almost irresponsible to fail to analyse whether predicted outcomes actually occur"). Consequently, they encourage further inquiry into elements of post-decision evaluation for PPP schemes such as their design and operation, as well as the roles of audit offices, auditors general, and the like as part of them.

Unfortunately, research addressing Broadbent and Laughlin's research agenda in the area of *ex post* evaluation has been rather lacking. Both Broadbent *et al.* (2003a) and English *et al.* (2010) attempt to advise on the development of concepts and frameworks for the evaluation of operational PPP schemes. Based on a survey of practices from 17 PPP schemes in the British NHS, Broadbent *et al.* (2003a) offers three main elements that a system for evaluating such schemes should address. First, it should focus on elements that led to the pursuit of a PPP scheme (e.g. did risk allocations work as intended? Are desired outcomes being met?). Second, the evaluation process should proactively go beyond monitoring of outcomes to also trigger action where project concerns are identified. Third, non-financial, cultural and operational aspects need to be given greater emphasis (through canvassing stakeholder opinion for example) in eliciting a broader perspective of success (or not) both for individual schemes and for the health sector overall. English *et al.* (2010), from a review of relevant literature and discussions with representatives from the Office of the Victorian Auditor General, attempt to further advise on aspects of designing an ongoing evaluation system for operational PPP schemes. First, English *et al.* (2010) offer three propositions that they believe should act as "key building blocks" on which such an evaluation system should be built, being:

(1) Assessing economy, efficiency and effectiveness (the "three Es") is key, but is contextually defined.

(2) Evaluating effectiveness involves moving beyond a "watchdog" (i.e. compliance and accountability) to a "sheepdog" (i.e. coaching and mentoring for improvement) role.

(3) Internal evaluations are necessary but not sufficient for properly evaluating the economy, efficiency and effectiveness of operating PPPs.

Key elements for judging VFM on the basis of the three Es are also offered as part of the advice presented by English *et al.* (2010).

Further to the matter of *ex post* evaluations, two papers consider the evidence on evaluatory practices currently being performed. English (2007), examines the Australian experience with the "performance auditing" of PPP schemes to explore their characteristics and extent of use. Out of 124 Australian PPP projects in operation to December 2005, English (2007) reported that only 16 of these had been subjected to a performance audit, which were concentrated in Victoria, NSW and Western Australia, and focused mainly on transport PPPs. These audits were mainly concerned with compliance to pre-contracting procedures (systems-based audit) rather than substantive issues like the *ex post* achievement of risk transfer and VFM. Further, the key triggers of a performance audit are considered to be *ad hoc* (e.g. driven by a new project or political concerns), rather than following a routine audit program. English (2007) concludes from these findings that audit offices across Australia are failing to sustain adequate independent external scrutiny of PPP schemes, and that Australian audit offices should develop a more deliberate program and methodology for performance auditing to sustain public accountability for the substantive outcomes of PPPs. Similarly, Shaoul *et al.* (2007b) proffer via a case analysis of government "success" claims for a British PPP toll-road that *ex post* analyses of PPP schemes fall short of expectations. For Shaoul *et al.* (2007b), such success claims were narrowly focused on project-specific technical accomplishments. Further, assessments underpinning such success claims were not independent of the public procuring authority, and evidence on the achievement of broader financial and social objectives espoused for the project was limited. From this, evidence, Shaoul *et al.* (2007b) imply that for the success of PPP policy and practice to be more appropriately assessed, more attention should be afforded to producing independent, systematic and longitudinal evidence of both individual PPP projects and broader PPP policy, considering not just technical accomplishments, but all associated project and policy objectives (e.g. financial, economic and social).

Collectively, this small collection of papers makes encouraging contributions to developing both knowledge and practice of *ex post* evaluations of PPP schemes. They offer advice for how such evaluations should be oriented and structured, as well as highlighting the lack of practical progress in this area. Unfortunately, this research agenda still remains seriously underdeveloped within the literature. Perhaps this is due to the persistent lack of progress on these matters in practice, as indicated by the papers in this section. If this is the case, then perhaps there is an opportunity here for researchers to take the lead, driving structural, policy and procedural debate to stimulate development in *ex post* evaluation practices associated with PPP schemes.

2.4 Merit and worth of PPPs

Understandably, Broadbent and Laughlin (1999, 2004) stress the need for evaluations of the PPP approach to public investment in terms of its contribution to the public sector and society more generally, whether these contributions be defined in financial or other terms. This section is devoted to articulating what the extant literature has achieved in this regard.

Arthur Andersen & Enterprise LSE (2000) and Allen Consulting Group and the University of Melbourne (2007) both report favourable findings on the financially-oriented merit and worth of PPPs in operation. Based on government estimates of the financial costs of PPP schemes in the UK, Arthur Andersen & Enterprise LSE (2000) disclose that the average estimated savings against the PSC in the sample of projects surveyed was 17 per cent[10]. However, it was found that the financial value of risk transfers accounted for 60 per cent of forecasted savings on average, making the same sensitive to the outcomes of (and consequently the earlier described challenges associated with) risk calculations. Notwithstanding this and some other less significant cautions, the authors draw the conclusion that PPP schemes offer "excellent value for money" (p. 3). The Allen Consulting Group and the University of Melbourne (2007) provide a comparative study of time and cost elements for a sample of post-2000 Australian infrastructure projects procured through PPPs and "traditional" means. They reported that PPPs demonstrate significant advantages in terms of lower cost overruns and better "on time" and "ahead of time" completion[11], with such advantages further favouring PPPs with increasing project size and complexity. Consequently, Allen Consulting Group and the University of Melbourne (2007, p. 1) proffer that PPPs provide "superior performance" relating to time and cost outcomes relative to traditional procurement. In addition, they suggest that the full benefits of PPP were not captured by this study, as other qualitative effects could add to the social benefit of these schemes[12].

In contrast to the largely positive findings of the above papers, Ball *et al.* (2000), Gaffney and Pollock (1999), Gaffney *et al.* (1999a), Pollock *et al.* (2002), and Shaoul *et al.* (2006, 2007b, 2008) contest the financial merit and worth of PPP schemes. As part of a four-paper series on PPP schemes in the UK's NHS, Gaffney *et al.* (1999a) present evidence of the negative financial impacts these schemes can have in the context of British PPP hospital schemes. Using publicly available information, Gaffney *et al.* estimated that:

- the total costs of hospital building (construction plus financing costs) via a PPP were 18-60 per cent higher than construction costs alone;
- the expected real return for PPP shareholders was in the range of 15 to 25 per cent p.a.;
- private parties charged the NHS fees equivalent to between 11.2 and 18.5 per cent of construction costs p.a.; and
- financial estimates of VFM were highly sensitive to political decisions about discount rates.

Pollock *et al.* (2002) again utilise available public data (from a selection of UK hospital PPP schemes) to estimate that the cost of raising finance accounted for approximately 39 per cent for the total project costs on average, making PPPs an expensive way to finance new hospital construction. Ball *et al.* (2000), Gaffney and Pollock (1999), and Pollock *et al.* (2002) also maintain via their respectively presented evidence that common justifications for these higher costs, such as savings from private sector involvement, access to additional financing, innovation, risk transfer, and the like are disputable. Shaoul *et al.* (2006) support this view by reporting their evidence about the costly nature of PPP schemes in the context of road infrastructure in the UK. They observe that in the first three years of operation, such schemes had cost the UK Highways Agency more than the total construction costs for these projects. The authors also highlight that private partners reported a post-tax return on capital of 29 per cent and an effective cost of capital of 11 per cent in 2002, which is considered much higher than the cost of public finance. Further, Shaoul *et al.* (2006) claim that complex webs of subcontracting create additional, undisclosed sources of profit for private partner parent companies. Finally, Shaoul *et al.* (2008) performs a more systematic study of the financial merit of PPPs through a study of the first 12 hospital trust PPP schemes in the UK. From examining this sample, the authors reported that ten of these schemes were making service payments between 10-71 per cent higher than expected. In addition, financial burdens are added due to the rigidity of service payments agreed to for a PPP scheme, creating affordability and budget flexibility problems in a sector which is struggling to break even. Shaoul *et al.* (2008) also maintain that the British government is being short-changed on PPPs as the special purpose organisations responsible for delivering these schemes typically paid lower tax than expected.

Several papers extend the financial considerations of the above papers by accounting for other costs or benefits that may accrue from PPP schemes. Perception-based studies by Dixon *et al.* (2005) and Li *et al.* (2005b) identify a range of professed benefits evident from British experiences, including quicker and cheaper delivery, substantial risk transfer, more aggressive and disciplined procurement processes, a compulsion for public authorities to think long term, better project technology, and facilitating integrated outcomes. Perceived costs these studies raise include high transaction costs, lack of competition in the PPP market, lack/loss of public sector skills, and the sensitivity of cost savings to risk transfer valuations and discount rates used. Contrary evidence is provided by Dixon *et al.* (2005) and Li *et al.* (2005b) on the relative merit/contribution of PPPs in offering flexibility and innovation in public investment. Li *et al.* (2005b) notes that differences between public and private sector opinion of the relative importance of some of the espoused benefits can also be observed. To a large degree, these perceptions of benefits/costs are in line with common rhetoric about the merits of PPP schemes.

Complications in evaluating merit and worth are highlighted in the literature via identified contingencies relating to the achievement of perceived PPP benefits. For Koppenjan and Enserink (2009), Reeves and Ryan (2007) and Spackman (2002), the effectiveness of contracting, procurement/assessment processes, institutional frameworks and governance practices, as well as political constraints in given contexts (such as pressure to have services up and running) can affect the cost/benefit balance and hence achievement of VFM for a PPP scheme, as well as reconciling desired financial and nonfinancial outcomes (such as balancing financial and environment/social sustainability objectives in the case of an urban redevelopment project). Koppenjan (2005) highlights the importance of interaction between partners in the formation of PPP schemes, recommending a "logic of connection" to improve the quality and effectiveness of PPP formation processes and hence outcomes[13], although Weihe (2008) cautions that inherent tensions can arise between achieving VFM benefits from collaboration and safeguarding procedural public values in PPPs. Lilley and De Giorgio (2004) imply that the "logic of connection" also extends to a PPP's social and political context, as they argue that VFM is subject to the achievement of effective communication and building trust with affected communities, as well as a proper appreciation of the political sensitivities and accountabilities that public sector authorities are subject to. Demirag and Khadaroo (2010) suggest that project size has an important bearing on the achievement of VFM, presenting evidence from UK school PPPs indicating greater satisfaction with costs and certain aspects of infrastructure and service delivery from smaller schemes, contrary to the findings of Allen Consulting Group and the University of Melbourne (2007) (see earlier), and the received wisdom on the importance of economies of scale and scope. Klijn and Teisman (2003) add (from case studies of three Dutch PPPs) that the range of actors both involved and affected, ingrained public/private role conceptions and domain demarcations, and differing strategic values between public and private participants enhance the complexity of decision making and work against the achievement of VFM and associated outcomes (like partner collaboration, innovation and risk sharing). Finally, focusing VFM benefits from innovation, Rangel and Galende (2010) contend from an examination of Spanish highway concessions that three factors encourage innovative activities in PPPs: the type of risks transferred to the private partner, the presence of competition between bidding parties, and the imposition of penalties for not achieving contractually specified quality attributes.

Critical evaluations of the supposed merits of PPPs are also offered with the extant literature. Drawing from two case examples, Grimshaw *et al.* (2002) maintain that while efficiency and flexibility gains are achievable, PPPs can also introduce new costs and "rigidities", such as loss of project control arising from diminished public sector technical knowledge, difficulties with imposing competitive pressures and contractual enforcement on private providers, the binding nature of long-term partnerships, and disincentives for developing "efficient" public service options. Further, imbalances in reputational impacts, technical knowledge, contractual expertise and relative market power are claimed to also affect comparative bargaining positions and distributional effects in favour of private sector partners. Through observations made in the British NHS, Mayston (1999) adds to this critique by raising concerns about the capacity of PPPs to increase efficiency, accountability, and VFM in the manner intended. These concerns are drawn from several arguments that relate to:

- public authorities' lack of freedom in choosing between alternative forms of procurement;
- justification of PPPs as the best and only procurement alternative;
- high degree of secrecy and hence lack of transparency;
- bias of major construction companies for building rather than renovating/upgrading;
- high tendering, negotiation and transaction costs; and
- loss of flexibility for managing uncertainties from long-term contracting.

Trailer *et al.* (2004) submits that problems confounding the achievement of espoused PPP benefits emanate from a compound agency problem – conflicting goals between the public authority (which aims to create jobs and increase public services); the private partner (whose aim is to maximise the value they derive); and the consumer/community (which aims to maximise consumer surplus/social welfare) – which hold the potential to produce social consequences not in keeping with the public interest. Finally, aligning to the critiques of the rationales for PPPs described earlier, Flinders (2005) asserts PPPs to be a political form of "Faustian bargain" (p. 234), where governments prioritise short-term benefits of PPPs for political expediency, while failing to appreciate the longer-term contestability of VFM in PPPs, as well as the negative consequences of an embedded belief in partnership arrangements, such as substantial political and democratic costs arising from the increasingly fragmented, complex and opaque accountabilities that PPP schemes supposedly introduce.

Overall, the evidence provided by the literature considering the merit and worth of PPPs is mixed. At the same time that certain financial and other benefits are reported, a range of costs and concerns about the merit and worth of PPP schemes are also clearly evident. Additionally, complications with and doubts about achieving the espoused benefits of PPP schemes are raised. As such, this literature highlights that PPPs should not be viewed as a simple panacea to the ills of the public sector, but as an approach to public procurement where the merits of their use (financial and otherwise) should be considered both before and after the decision to proceed with such a scheme is taken. Ambiguity in the evidence for the merit and worth of PPP schemes also indicates the need for governments to more systematically accumulate and make available information on the performance of PPPs in operation over time. Such implications seem obvious, but as the previous section on *ex post* evaluation illustrated and the following section on PPP regulation and guidance will show, is not so evident in practice. If these efforts were to occur more systematically, future scholarly inquiry could use the information derived to bring clarity on the conditions for meeting PPP policy objectives and achieving beneficial outcomes (financial and otherwise) from these schemes.

2.5 PPP regulation and guidance

A key question raised by Broadbent and Laughlin (1999) is who or what regulates the interpretation and application of PPP schemes. They take a macro perspective on this question, encouraging a focus on the effects of institutional elements (e.g. legislation, government bodies, regulatory agencies) in governing the form and development of PPP schemes. In the main, such issues have already been accounted for as part of considerations regarding the nature and rationale of PPPs, and so will only be considered here briefly. In addition, a broader perspective on PPP regulation and guidance is offered, taking in research examining aspects of the "micro" regulation of PPPs – accounting, accountability and contractual mechanisms mobilised to control the form and functioning of individual schemes.

In line with the "macro" perspective on regulation raised by the Broadbent and Laughlin (1999, 2004) research agenda, one issue considered in this literature is the influence of government legislation and regulation on the development of PPPs. As mentioned previously, English and Guthrie (2003) have articulated how a range of steering media and mechanisms have conditioned public investment decisions in

Australia in a manner favourable to partnership schemes. Likewise, Newberry and Pallot (2003) and Newberry (2004) highlighted the biasing effect of administrative public reforms (such as changes to public sector financial management rules, accounting standards and other regulations) in New Zealand. Baker (2003) further critiques such regulatory reforms by contesting their rational merit. In arguing this point, Baker (2003) presents Enron as an "Americanised" form of PPP (characterised by long-term contracting between the public and private sectors, deregulation, tax incentives and/or favourable industry legislation). Deregulation of the US energy sector facilitated unintended effects, typified by the opportunistic and innovative structures of the Enron business model. For Baker (2003), the Enron case provides a cautionary account of deregulation as a vehicle for greater private sector involvement in traditionally public sector domains.

Accounting policy is another area of "macro" PPP regulation considered by the literature, particularly with respect to the treatment of assets and liabilities vested in these entities[14]. Adequate accounting for PPPs is arguably important for ensuring appropriate transparency and accountability (Mayston, 1999). With the exception of Stafford *et al.* (2010), which reports a comparison of Spanish and UK accounting policy for PPP schemes (and notes that despite differences, both treatments result in a lack of transparency)[15], academic focus on this matter has largely been directed towards Anglo-centric debates regarding accounting policy's accommodation of "off-balance sheet" treatment of PPP schemes where significant transfer of partnership benefits and costs (usually signified by the balance of public/private risk responsibilities) to private parties can be demonstrated. English and Walker (2004) and Kirk and Wall (2001) are critical of the focus on the balance of public/private risk responsibilities to reflect the economic substance of a PPP and hence justify off-balance sheet treatment. Kirk and Wall (2001) raises concern over the need to transfer substantial risks to the private sector to achieve off-balance sheet treatment, as increased risks borne by the private sector will require increased private rates of return on PPPs to compensate and hence make the achievement of VFM much more difficult. English and Walker (2004), reflecting on earlier described difficulties in realising agreed risk transfers in practice, argue as a consequence that risk is an inappropriate means for determining off-balance sheet treatment. Several authors go further to criticise the general desire for off-balance sheet treatment. For instance, the availability of different approaches (on/off balance sheet) for recording a PFI scheme in public accounts is said to make comparative assessments of PPP schemes problematic (Hodges and Mellett, 2004). Off-balance sheet financing is also reasoned to be a form of "creative accounting" that excludes significant financial exposures from public sector reporting, resulting in a lack of transparency and accountability for PPPs and their impact on public finances (Benito *et al.*, 2008; English and Guthrie, 2003; Hodges and Mellett, 1999, 2004; Torres and Pina, 2001; Walker, 2003; Watson, 2003). Shaoul *et al.* (2010) highlights however that while off-balance sheet is highly problematic, it is not the limit of problems associated public financial reporting of PPP schemes. Drawing evidence from 11 toll-road PPP schemes in the UK, the authors found that reporting is inconsistent, limited and opaque, making it difficult to ascertain annual project costs, departures of costs from estimates agreed to at financial close, and how (well) the agreements are operating. In Shaoul *et al.*'s (2010, p. 251) words, "the lack of consistent, comparable, and understandable financial information […] makes it difficult for public sector stakeholders to understand where public money is going, how it is being used, and the extent of future commitments and liabilities". Together, the limited reporting highlighted by Shaoul *et al.* (2010) and the off-balance sheet treatment highlighted by the other papers bring into question the completeness and hence value of published public sector financial reporting relating to PPPs.

PPP accountability is a key issue to which the extant literature affords significant attention. One aspect of this issue is how accountability should be exercised in the name of VFM. There is an implicit assumption within common rhetoric about PPPs that holding such schemes accountable is connected to the achievement of VFM. Demirag *et al.* (2004) and Demirag and Khadaroo (2008, 2009) conceptually examine this presumed relationship. According to Demirag and Khadaroo (2008), holding PPP schemes accountable for VFM can be a challenging exercise, for as already mentioned, VFM can sustain different and often conflicting meaning for a given scheme. Nothwithstanding this, Demirag *et al.* (2004) attempts to offer some guidance in this regard by conceptualising different forms of accountability and drivers of VFM that are thought most appropriate to consider at different stages of a PPP scheme's progress. Drawing from Dubnick's framework for accountability (see for example Dubnick (1998, 2003) and Dubnick and Justice (2002)) Demirag and Khadaroo (2009) develops a conceptual framework that draws attention to certain "accountability cultures" (attributability, liability, blameworthiness, answerability), forms of accountability (communal, contractual, managerial, and political accountability respectively) and associated accountability mechanisms may influence behaviour, transparency and decisions made in the name of VFM, the implication being that VFM is conditioned by how accountability cultures, forms and mechanisms manifest in a given PPP setting over time.

Another matter related to PPP accountability taken up in the extant literature is the challenges associated with exercising accountability in this context, to which Andrew (2007), Broadbent and Laughlin (2003a), Grimsey and Lewis (2002b) and Watson (2003, 2004) have given attention. Watson (2003) argues that tensions between public and private interests inherent in such schemes fragment accountabilities and consequently restrict their public scrutiny in a variety of ways, complicating the exercise of effective accountability[16]. In response, Watson (2003) makes several suggestions that focus on improving accountability for finances, fairness and performance of PPPs. Watson (2004) focuses on the role of Public Accounts Committees (PACs) in maintaining PPP accountability, and outlines a range of questions to guide PACs in reviewing PPP activities based on five areas of concentration:

(1) identifying the service requirement;

(2) evaluating the business case;

(3) selecting a preferred provider;

(4) post-decision monitoring and management; and

(5) process evaluation.

Broadbent and Laughlin (2003a) also consider difficulties inherent in public accountability, with particular reference to shortcomings of the political nature of government accountability. As a government is mainly held to account via the election process, its daily actions are largely obscured from the public and impervious to public opinion. From time to time, considerable public pressure can cause governments to introduce greater transparency and "managerial" accountability[17]. However, this is seen to strengthen rather than dilute a government's societal position and power to act by arguably enhancing the legitimacy – but not the accountability – of government actions and investments via PPPs. Finally, Andrew (2007) and Grimsey and Lewis (2002b) offer contrasting commentaries on the merits of public accountability mechanisms for PPPs as they have presently developed. On the one hand, Grimsey and Lewis (2002b) are encouraged by developments of policy frameworks and guidelines for strengthening accountability for PPP activities. However, they argue for greater uniformity of approach in effectively addressing complexities in PPPs (particularly in relation to risk sharing) and new approaches for probity that better reflect the public-private character of these arrangements. In contrast, Andrew (2007) argues that the procedural and technical discharge of accountability (e.g. contract compliance, performance measurement, financial reporting) that has come from privatising public services (like prisons) has diverted attention away from key ethical and moral elements that need to be addressed (which in the case of prisons, includes matters such as the objectives of incarceration and appropriate prisoner treatment) for public accountability to be meaningful.

Some consideration is also given in the literature to the contractual governance of PPPs. Hart (2003), drawing from privatisation literature and incomplete contracting theories, attempts to produce a mathematical model of contracting for PPPs. From this model, the author suggests that the contractual approach to PPPs is suited to public procurement if the quality of the public service (as opposed to the quality of infrastructure supporting a service) can be well specified through contracting. Broadbent *et al.* (2003b) go further by considering a contractual focus to governing PPPs to be antithetical to building cooperative relationships, which they believe is a key ingredient to a successful PPP scheme in the longer term. As such, the authors advocate the need for trust between PPP partners (i.e. "system trust" and "goodwill trust") in aid of a relational contracting approach that relies less on contractual form and more on public/private working relationships built in fulfilling the contract terms. Leading on from this, several papers provide further insight into the workability of PPP contracts. Edwards and Shaoul (2003b) and Reeves (2008) highlight complexities that can arise in the working of PPP contracts, particularly in cases like schools, where the public contracting authority can be distinguished from the individual schools substantively involved in the working of the scheme. They indicate that complications and conflicts can arise both in the negotiation and enforcement of PPP contracts because of asymmetric involvement and information flows, as well as a separation of monitoring activities and sanctioning authority between public "purchasers". The cooperative working of PPP contracting is also examined in the literature. In this regard, Lonsdale (2005b) argues that there are considerable obstacles to realising "balanced" and hence cooperative PPP agreements, citing examples which highlight the impact of asymmetric power relations between public and private parties (usually in favour of the private partner), the political (i.e. interest-based rather than rational) character of public decision making, and imbalances in negotiating capabilities and resources available. Even if contractual balance is achievable, Lonsdale suggests that asymmetries in transactional salience (e.g. where a PPP scheme involves fulfilling statutory obligations or essential services) will significantly affect the capacity of government to enforce their contractual rights. Lonsdale and Watson (2007) supports the assertions made by Lonsdale (2005b, p. 683) by contending via evidence from British health PPPs that "UK public managers negotiate and implement PFI contracts within an environment that is, to a significant extent, characterised by supplier opportunism, something that requires them to employ an extremely assiduous, if not necessarily distant, approach to contract and relationship management". Similarly Reeves' (2008) examination of Irish PPP schools showed that while cooperative relations were developed between contracting partners, a largely transactional approach to contract governance was evident. One could draw the conclusion from this evidence about cooperative working that "partnership is an aspiration rather than a description of the actual working relationship between public and private contracting parties" (Edwards *et al.*, 2004: p. 221). But in contrast to the above papers, English and Baxter (2010) present more optimistic evidence of the cooperative working of PPP contracts, by showing how elements of uncertainty, bounded rationality and opportunism were worked through five project deeds for prison PPP schemes in Victoria, Australia. In relation to managing uncertainty and change, the authors found contract conditions had developed form and content over time, reflecting reduced scope and a new emphasis on goodwill trust and relational contracting that build on presumptions of contractual and competence forms of trust. English and Baxter (2010) also highlights the persistent and recursive nature of PPP contracting, where parties re-engage with poorly specified or omitted written intent, as well as impacts from relevant changes in the transaction environment. As such, English and Baxter (2010) characterise PPP contracting as ongoing, organic, and hence more "elastic" than it is otherwise depicted either in popular rhetoric or the extant literature.

To a large degree, the papers presented in this section raise concern about the state of current accounting and accountability mechanisms in place to ensure appropriate public scrutiny of PPPs as vehicles for the delivery of public infrastructure and services. The extant literature is mainly critical of a wide range of "regulatory" mechanisms (at both a macro and micro level) that supposedly facilitate public oversight of PPP activities. Key to these critiques is a desire to make PPP activity more transparent and accountable in meeting public interest objectives. It also highlights some contradictions between "theory" and "practice". For instance, while "softer" elements to contract management such as trust and relational contracting seem conceptually appealing in the literature, evidence of such elements at play in the working of PPP contracts seems mixed and confounded by certain identified elements, although not totally without elements of optimism. In sum, this literature highlights important matters that should be addressed by both policy-makers and practitioners if acceptable standards of transparency, accountability and governance of PPP schemes are to be achieved and cooperative governance of such schemes realised.

3. Comments on the extant literature and future research opportunities

As is evident from the literature reviewed above, a wide variety of issues has been examined in relation to the five themes derived from Broadbent and Laughlin (1999, 2004), which are summarised in Table VI.

The extant literature has critiqued motivations, discourses and influences that have shaped PPP developments. It has made important contributions to explicating the deficiencies of and values associated with financial calculations used to assess VFM and manage risks for proposed PPP schemes. Extant work has highlighted the scant

Theme	Literary contributions
Nature of and rationale for PPPs	*Nature*
	Unpacking the conceptual uses of the expression "PPP" (Linder, 1999)
	Periods of PPP evolution described (Maguire and Malinovitch, 2004)
	Rationale
	Financial, operational and regulatory motivations in favour of PPPs (McQuaid and Scherrer, 2010; Spackman, 2002)
	PPPs associated with the modernisation of government (Broadbent and Laughlin, 2005b)
	Influence of institutional drivers and reforms in advancing the cause of PPPs (English and Guthrie, 2003; Newberry, 2004; Newberry and Pallot, 2003; Petersen, 2010)
	Neo-liberal biases embedded in "technical" financial/administrative reforms (Newberry, 2004; Newberry and Pallot, 2003)
	Pervading influence of private involvement in PPP policy and practice (Asenova and Beck, 2010; Shaoul *et al.*, 2007a)
Processes and procedures aiding decisions to undertake PPPs	*VFM*
	Multiple meanings of VFM (Demirag and Khadaroo, 2008)
	Elements of and criteria for VFM assessment (Grimsey and Lewis, 2005; Officer, 2004)
	Limitations associated with VFM assessment (Andrew and Cahill, 2009; Cooper and Taylor, 2005; Coulson, 2008; Edwards and Shaoul, 2003b; Froud and Shaoul, 2001; Grout, 1997; Grout, 2003; Heald, 2003; Khadaroo, 2008; Shaoul, 2002, 2005)
	Challenges to the rational basis/technical appearance of VFM assessment (Andrew and Cahill, 2009; Cooper and Taylor, 2005; Froud and Shaoul, 2001; Heald, 2003; Shaoul, 2002, 2005)
	Risk
	Risks typically assessed in contracting stages of PPPs (Asenova and Beck, 2003a; Grimsey and Lewis, 2002a; Hodge, 2004a, 2004b; Ke *et al.*, 2010; Li *et al.*, 2005a; Lilley and De Giorgio, 2004; Quiggin, 2004; Stanley and Hensher, 2004)
	Risk identification, assessment and management practices and issues (Ahadzi and Bowles, 2004; Akintoye and Chinyio, 2005; Asenova and Beck, 2003a, b; Demirag *et al.*, 2010; English, 2005; English and Guthrie, 2003; Hood and McGarvey, 2002)
	Divergences in stakeholder risk priorities (Demirag *et al.*, 2010; Gallimore *et al.*, 1997; Gao and Handley-Schachler, 2004; Grimsey and Lewis, 2002a)
	Prescriptions for optimal risk transfers (Li *et al.*, 2005a; Lonsdale, 2005a; Quiggin, 2004)
	Criticisms and complexities relating to the involvement of risk in VFM assessments (Edwards and Shaoul, 2003a, b; Edwards *et al.*, 2004; English, 2005; English and Walker, 2004; Shaoul, 2003)
	Criticisms levelled at the quantification of PPP risks (Broadbent *et al.*, 2008; Froud, 2003).

(*continued*)

Table VI. Overall summary of issues addressed by the papers examined

Theme	Literary contributions
Processes and procedures for *ex post* evaluations of PPPs	Guidance on *ex post* evaluation of PPPs (Broadbent *et al.*, 2003a; English *et al.*, 2010)
	Extent and focus of current *ex post* evaluations (English, 2007; Shaoul *et al.*, 2007b)
Merit and worth of PPPs	Support of and challenges to the financial merit of PPP schemes (Allen Consulting Group and the University of Melbourne, 2007; Arthur Andersen & Enterprise LSE, 2000; Ball *et al.*, 2000; Gaffney *et al.*, 1999a; Gaffney and Pollock, 1999; Pollock *et al.*, 2002; Pollock *et al.*, 2007; Shaoul *et al.*, 2006, 2007a, 2008)
	Perceived conceptual benefits/costs of PPPs (Dixon *et al.*, 2005; Li *et al.*, 2005b)
	Identified contingencies in achieving perceived PPP benefits (Demirag and Khadaroo, 2010; Klijn and Teisman, 2003; Koppenjan, 2005; Koppenjan and Enserink, 2009; Lilley and De Giorgio, 2004; Rangel and Galende, 2010; Reeves and Ryan, 2007; Spackman, 2002; Weihe, 2008)
	Difficulties/doubts about the overall merit and worth of PPP schemes (Flinders, 2005; Grimshaw *et al.*, 2002; Mayston, 1999; Shaoul *et al.*, 2007a; Trailer *et al.*, 2004)
PPP regulation and guidance	*Legislation and regulation*
	Critique of drivers for and consequences of regulatory and technical reforms in favour of PPPs (Baker, 2003; English and Guthrie, 2003; Newberry, 2004; Newberry and Pallot, 2003)
	Accounting policy
	Critique of off-balance sheet treatment of PPPs (Benito *et al.*, 2008; English and Guthrie, 2003; English and Walker, 2004; Hodges and Mellett, 1999, 2004; Kirk and Wall, 2001; Stafford *et al.*, 2010; Torres and Pina, 2001; Walker, 2003; Watson, 2003)
	Identified problems with financial reporting available for PPP schemes (Shaoul *et al.*, 2010)
	Accountability
	Connections between accountability and VFM (Demirag *et al.*, 2004; Demirag and Khadaroo, 2008; Demirag and Khadaroo, 2009)
	Issues and difficulties in maintaining public accountability of PPPs (Andrew, 2007; Broadbent and Laughlin, 2003a; Grimsey and Lewis, 2002b; Watson, 2003, 2004)
	Contracting
	Optimal contractual arrangements for PPPs (Broadbent *et al.*, 2003b; Hart, 2003)
	Analysis of the formation, effects and workability of PPP contracting (Edwards and Shaoul, 2003b; English and Baxter, 2010; Lonsdale, 2005b; Lonsdale and Watson, 2007; Reeves, 2008)

Table VI.

development of *ex post* evaluations of PPP schemes, and has offered advice on how this could be remedied. The literature has drawn attention to the conflicting evidence, difficulties and ambiguities in substantiating the merit and worth of PPP schemes. It has also flagged important challenges in making PPPs appropriately transparent and accountable.

Sensitised by the PPP research themes discussed to this point and drawing from observations about directions that the literature has taken to date, what follows is a commentary on opportunities that future accounting-related PPP research could fruitfully pursue. This discussion about current directions and future opportunities is organised around the following themes:

- looking beyond the "technicalities" of partnership;
- problematising critical explanations;
- internationalising knowledge;
- considering post-procurement implications;
- attending to the implications of the global financial crisis; and
- addressing research impact on policy and practice.

While the extant research directions are by no means exhausted, and can still be productively enhanced by future investigations along similar lines, the commentary offered in this section highlights that accounting-related PPP research also needs to start branching into other relatively unexplored areas in order to expand our knowledge of these schemes, particularly in terms of problematising and appreciating the pragmatic challenges associated with how PPP schemes are constructed and operate in practice.

3.1 Looking beyond the "technicalities" of partnership

The first observation made about the reviewed literature is its focus on the "technicalities" of PPP schemes. This refers to a large research concentration on identifying and evaluating the "mechanisms and details" of partnership arrangements (Lambert and Lapsley, 2006, p. 102), such as accounting calculations and other decision criteria associated with VFM appraisal, techniques for identifying, assessing and managing risks, accounting policy and reporting treatment, and public accountability mechanisms currently in use (see Table VI for appropriate references). Extant studies have been particularly interested in surveying their formal uses and scrutinising their functional properties, and from this work draw attention to inadequacies supposedly inherent in accounting and accountability methods embedded in prevailing policies and assessment structures for PPP schemes. Most particularly in this regard, extant research has focused on questioning the "technical" integrity of prevailing financial calculations and related quantitative methods considered central to appraisals of VFM and risk. It has highlighted from a range of conceptual analyses and cases of "failure" how an emphasis on quantification is highly vulnerable to professional judgments, conditions what counts in VFM, risk and related matters, and consequently exposes assessments of the same to many shortcomings and complications, which are arguably amplified by the complex, uncertain, irregular and long-term nature of PPP schemes, and often manifest only after negotiations for a PPP scheme have been finalised and contracts have been signed.

This focus on examining the technicalities of partnership has made essential contributions to realising the limits of formally defined methods of accounting and accountability commonly applied to the appraisal of VFM, risk and related aspects of proposed PPP schemes by challenging the appropriateness and efficacy of prevailing techniques and thus sustaining important debate over their centrality in decision-making about and oversight of PPP schemes. However, this focus has limited analysis to evaluating abstracted properties of these methods, as if the ways in which they are practically drawn upon is relatively unimportant. As such, knowledge of how established accounting routines/calculations commonly associated with the appraisal of partnership arrangements are actually used, and how they practically interrelate with the situated circumstances in which they are applied, is significantly underdeveloped.

To look beyond the extant concentration on "technicalities", and develop further understanding of how the roles and effects of accounting-related PPP appraisal techniques are shaped in action, more empirical analyses are required that focus on "the doing of accounting work" (Chua, 2007, p. 487) connected to PPP appraisal. Although case study/field work is already a relatively popular approach to studying PPPs (see Figure A3 of the Appendix), such studies have usually been performed "at a distance", using available documents and perhaps some interviewing to gauge perceptions. Future field research, perhaps assisted by a practice oriented lens like Actor-Network Theory (ANT) (see Latour (1987, 2005), should seek to more closely follow the detailed performance of this work, paying attention to the lived roles and effects that such work sustains *in situ* (Ahrens and Chapman, 2007; Chua, 2007). Focusing on VFM appraisal as an example, scholarly inquiry of this nature could help to shed light on the intricacies and complexities of this exercise in a variety of ways. First it could offer insight into the practical challenges faced and pragmatically resolved in mobilising accounting and other quantified techniques commonly applied to VFM appraisal. What are the trials faced in producing workable and understandable quantifications of value, risk and other elements? How are the many information gaps, ambiguities and contingencies that confound the use of quantitative techniques confronted and overcome? How do the numbers produced sustain wide-ranging explanatory power in situated discussions about VFM in spite of their obvious reductive tendencies? Second, focusing on the doing of VFM appraisal could offer a more sophisticated sense of the "situated functionalities" of accounting as practiced in this context (Ahrens and Chapman, 2007). Much like Ahrens and Chapman's (2007) observation about early interpretive research, accounting-related research on VFM appraisal has tended to downplay the ways in which accounting work can and does enable the appraisal of proposed partnership schemes, however imperfectly. Government representatives involved with proposed PPP schemes are likely to be aware of the shortcomings of accounting and other appraisal tools they use. Yet they continue to use them and act under their guidance to do things like discharge formal obligations, facilitate judgment, aid negotiations with bidding consortia, shape responsibilities and accountabilities, and communicate "value". As such, techniques used as part of the accomplishment of VFM appraisal are likely to be implicated as much in situated processes of bargaining, communicating, disciplining, informing, learning, and rationalising as they are in deliberating future alternatives. Third, analysis following VFM appraisal work may assist in better understanding the range of elements that become involved with shaping the performance and achievement of VFM appraisal. Many authors lament how public investment decisions involving the possibility of a PPP scheme are increasingly "accounting driven and accounting determined" (Broadbent *et al.*, 2008, p. 71). But this focus underplays how VFM appraisal is as concerned with a range of other "things" (e.g. people and their interests, competing knowledges, problems, priorities and political sensitivities) as it is with the use of accounting techniques. Producing an extractable result from an appraisal of VFM requires constructing equivalence between and making comparative judgments about many different human and material elements. So understanding the situated capacity and achievements of VFM appraisal means understanding it as collective achievement, dependent on and shaped by the morphology of these human and material relations to which this work is tied.

The call to look beyond the "technicalities of partnership" is also intended to encourage further research on abstract and taken-for-granted concepts commonly associated with PPP schemes, such as "VFM", and "risk". VFM is widely presumed to equate to a narrow and largely economic representation of the merit of a proposed PPP scheme. Similarly, risk is generally spoken about as if it can be tangibly predicted, valued and transferred between parties. However, observations in the extant literature contradict these sanitised and economised presumptions. With respect to VFM, limited evidence has drawn attention to the complexity and situatedness of what VFM means in different times and places (Demirag and Khadaroo, 2008; English *et al.*, 2010). For risks, research has noted differences in how they are perceived and prioritised by various PPP stakeholders (Demirag *et al.*, 2010; Gallimore *et al.*, 1997; Gao and Handley-Schachler, 2004; Grimsey and Lewis, 2002a) and has criticised presumptions about what risk "are" (Froud, 2003) and how they "behave" (Edwards and Shaoul, 2003a, b; Edwards *et al.*, 2004; English and Walker, 2004; Shaoul, 2003). A need to summarise and analyse interpreted meanings of PPP concepts like VFM and risk, and who is key in constituting these interpreted meanings, was raised in Broadbent and Laughlin (1999). Supported by the literary evidence just described, this remains a major and underdeveloped research issue. How are these abstract concepts rendered situationally meaningful in spite of their highly ambiguous, politicised and fluid disposition? To what degree do these concepts act as "boundary objects"[18] that mediate and stabilise diverse interests tied to PPP schemes? Alternatively, to what extant are situated meanings sustained for VFM, risk and other PPP concepts an artefact of "ontological politicing" (Mol, 1999) between partisan interests and values about what VFM/risks "really" are and represent in a given time and place, and if so, to what effect? Addressing such questions would go at least some way to problematising taken-for-granted presumptions about important PPP concepts and how they are operationalised. This line of research could also have a practical dimension by, for example, recognising broad guidelines or themes that could further characterise VFM in terms that extend beyond the financial, for the purpose of appraising and maintaining ongoing accountability for the same.

By extending PPP research beyond its current technically oriented focus, such as in the ways suggested in this section, richer insights about the roles and effects of PPP accounting and accountability practices, as well as accounting-related PPP concepts, may be obtained. As mentioned by many authors, "commercial-in-confidence" principles present a significant impediment to PPP research, and future studies of the nature suggested in this section would be particularly sensitive to "commercial-in-confidence" concerns. However, this is not an insurmountable challenge. And if achievable, research along these lines would contribute significantly to understanding how people make do/work around challenges and obvious shortcomings so that accounting and accountability techniques used are workable enough in given circumstances. It would shed further light on the flexible and variable "functionalities" that can be constituted with the aid of such techniques. And it would develop a sense of how available techniques are connected to and interplay with a range of actions, interests, social processes, and meanings that frame tasks like VFM appraisal and risk assessment in terms that extend beyond the financial and by/through which the achievements of the same are shaped.

3.2 Problematising critical explanations

As already mentioned, only a relatively small number of papers in the reviewed literature explicitly specify some form of theoretically informed analysis (see Figure A4 of the Appendix). Notwithstanding this, the preceding review highlighted a range of papers within the extant literature having what might be regarded as a "critical" tone (Chua, 1986; Cooper and Hopper, 2007) – a desire to evaluate (mainly at a macro level) the interests, agendas, distributional effects and other ends associated with PPP schemes. In particular, such research has taken issue with the popular characterisation of PPP as "no more than a procurement policy" (Gaffney *et al.*, 1999b, p. 249) and VFM assessment as an "objective" process. In particular, many authors have stressed that PPPs must be understood within a broader social and political context arguably rooted in an ideological commitment to further liberalisation, managerialism and privatisation of public sector activity (see Baker, 2003; Cooper and Taylor, 2005; Flinders, 2005; Grimshaw *et al.*, 2002; Khadaroo, 2008; Newberry, 2004; Newberry and Pallot, 2003). For instance, some authors claim that this ideological commitment explains the development and effects of seemingly innocuous changes to rules and structures governing public decision making (such as government borrowing limits, public agency capital charges, debt reduction programs, legislative changes and policies of government and international agencies), which have arguably created conditions favourable to privatising arrangements such as PPP (English and Guthrie, 2003; Newberry, 2004; Newberry and Pallot, 2003). Other authors have also been critical of the role of PPP in extending the influence of an "accounting logic" in the public domain. Through the introduction of supposedly objective techniques of financial appraisal (through VFM assessments, risk valuations and the like), concerns are raised about the role of PPPs in making public investment decisions increasingly "accounting driven and accounting determined" (Broadbent *et al.*, 2008, p. 71). In particular, they bemoan the role of VFM in directing government attention towards a focus on economic stewardship, and at the same time obscuring unquantifiable social costs and benefits and foreclosing debate on investment alternatives (Cooper and Taylor, 2005; Froud and Shaoul, 2001; Grimsey and Lewis, 2005; Shaoul, 2005). So contrary to its "impartial" popularisation, VFM appraisals are said to introduce biases that favour economic interests and legitimise underlying (neo-liberal) agendas that underscore the continued proliferation of PPPs as a means of privatisation (Cooper and Taylor, 2005; Heald, 2003).

One might suggest that this research concentration is emblematic of the main philosophical orientation of scholars that have been attracted to examining accounting-related matters associated with PPP schemes to date (refer to Figure A1, Appendix). Whether one believes this to be the case or not, this body of research has impressed a concern for the bigger picture of social and political factors that are said to provide the underlying motivation for the proliferation of PPP schemes. These social and political explanations have been prompted by genuine concerns about contemporary reforms in public investment and their effects on public investment decision making. In particular, they have been important in breaking down the social authority popularly accorded to the rational decision logic on which PPP schemes are supposedly based, critiquing accounting's supposed "impotence" (Baxter and Chua, 2003) in this context, and for highlighting the potential of these schemes to fall short of achieving their supposed "public interest" objectives. As such, this research has offered an important counter to the generally favourable rhetoric through which governments and other commentators attempt to popularise these schemes. However, the tone of this research encourages a cynical and divisive approach to the study of PPPs, with the potential of obscuring a more sophisticated and nuanced understanding of the motivations and rationalities that become associated with PPP schemes and how they may change over time.

To extend our understanding of the motivations of and rationales for PPP schemes beyond the prevailing critical explanations offered in the literature, future research could more closely examine the conditions and elements connected to the development of such motivations and rationales, both in concept (a macro perspective) and in relation to specific circumstances (micro and macro/micro interface perspectives). Private sector "partnership" in public infrastructure and service provision has a long and varied history in assorted forms (Grimsey and Lewis, 2004). This begs the question of why, under the label of PPP, this has now become considered something "new", "different" and thus appealing. The popular literature frames the emergence of PPPs as an advancement, the latest innovation in efficiently and effectively providing for the needs of a civil society. Critical commentaries cite the growing influence of "economic rationality" as responsible for the establishment and growth of the PPP concept. However, outside these commonly espoused PPP rationales, there is a lack of understanding about how the PPP concept emerged and came to be an accepted approach for public investment. One approach to this would be to draw on the tenets of ANT and retrace the key actors (human and non-human elements) involved in constructing the concept of PPP and thus draw attention to how this was shaped mutually with the construction of heterogeneous actor-networks to which it was tied. Similar approaches have offered more sophisticated insight into the emergence and rationalities of accounting concepts such as discounted cash-flow analysis (Miller, 1991) and activity-based costing (Jones and Dugdale, 2002) and could usefully be applied here. From a more Foucauldian theoretical perspective (see Foucault, 1985), further research could inquire into the "conditions of possibility" – the collection of historically and geographically specific social and organisational practices and bodies of knowledge (Hopwood, 1987) – that contributed to the conceptual saliency of PPPs. This type of analysis is consistent with the principles of "new accounting history", which encourages an understanding of the contingencies that have allowed things like PPPs to become a thinkable and practicable phenomenon (Miller *et al.*, 1991). In their own ways, these suggested (ANT and Foucauldian) approaches offer a further appreciation of the many and varied elements and conditions that have come together and facilitated a PPP logic (and associated accounting-related notions like VFM) to thrive, as well as the possibility, through comparative analyses of the same, of extending initial insights offered by the likes of Petersen (2010) regarding the uneven spread of the PPP concept internationally.

An additional opportunity relating to the development of motivations and rationales for PPP schemes is to investigate how ambitions for PPP become viewed as acceptable and reasonable in given times and places. In other words, future studies could construct more detailed accounts of the conditions, actions and elements that come together to permit relevant government actors to perceive a PPP scheme as a promising alternative for certain public investment decisions. As described previously, the extant literature attempts to account for this through the explanation of social and political factors that arguably provide the underlying motivations for the proliferation of PPP schemes. However, these macro explanations do not sufficiently account for how relevant government actors attempt to make sense of a PPP for themselves in their own circumstances, as part of settling on a situated ambition for a PPP scheme. What is the agency of relevant government actors' in this settlement? How do these actors translate the general concepts of PPP from the abstract something that sustains situated interest and meaning? How do government representatives and other stakeholders begin to imagine a PPP scheme as a valuable alternative, thus motivating (and hence conditioning) attempts to appraise the VFM of the same through accounting calculations and other means? Following the actors, processes and materials that give form to situated ambitions would provide an important contribution to understanding the means by which PPPs and associated concepts such as VFM are translated and made meaningful in given times and places.

A further implication of the critical tone of much of the extant literature is that the involvement of private sector and other stakeholders in the procurement of PPP schemes is generally assumed along critical lines (i.e. they act in self-interest, in line with profit motives, and so against the public interest). There has been some attempt at gauging stakeholder differences in their risk priorities and risk management approaches stakeholder risk priorities (e.g. Demirag *et al.*, 2010; Gallimore *et al.*, 1997; Gao and Handley-Schachler, 2004; Grimsey and Lewis, 2002a). But aside from that, there is very little empirical investigation of stakeholder (especially private sector) involvement in both the procurement and operation of PPP schemes. Future research would do well to remedy this lack as part of problematising the assumed motivations of private PPP partners and other stakeholders, along with developing a more comprehensive understanding of how the achievements of PPP schemes are shaped and influenced by the various stakeholders involved.

In summary, the suggestions for future research indicated in this discussion section share an aim of problematising the generally "critical" tone of much of the extant literature. It is hoped that future research of the nature suggested in this section will help to produce a more sophisticated appreciation of the macro motivations and rationalities that have become associated with PPP schemes and how they may have changed over time. It is also hoped research following these suggestions will encourage knowledge of how such motivations and rationalities are translated from the abstract, and taken on by various stakeholders to a PPP scheme, to sustain meaning and relevance to localised agendas and public investment dilemmas.

3.3 Internationalising knowledge

Something encouraged by the Broadbent and Laughlin research agenda, particularly in their 2004 paper, is a better comprehension of international variability in PPP policy and practice. For them, international comparisons present learning opportunities that could contribute to "debate about the general applicability of PPPs and how they can contribute to the welfare of nations, individually and collectively" (Broadbent and Laughlin, 2004, p. 9), among other things. But as already mentioned earlier, one thing that clearly stands out in relation to the reviewed literature is that an international perspective on PPPs has largely been ignored, placing a heavy focus instead on PPP developments and experiences in the UK (see Figure A5, Appendix). As also described previously, this could have something to do with vigorous development and debate relating to PPP schemes in this jurisdiction, along with the location of scholars that have become most interested in this area (refer to Figure A1, Appendix for the latter). Irrespective of these influencing factors, the implication of this focus is that extant research has largely overlooked PPP developments elsewhere in the world, particularly in non-Anglo jurisdictions – only 7 per cent of the papers reviewed explicitly consider PPP developments outside the English-speaking world. While the observation has been made that the international diffusion of PPP schemes has been relatively uneven (Broadbent and Laughlin, 2004), variations of the PPP concept are observable in many countries around the world (see Broadbent and Laughlin (2004) and Grimsey and Lewis (2004) for descriptions of international PPP developments). Further, the latest available information (up to October 2010) on the international scale of PPPs reports that schemes are being planned, are under development or are operational in 140 countries, with an combined investment value of USD $1.54 trillion (Reinhardt, 2010). This highlights the fact that the international diffusion of PPP schemes can no longer be ignored, and means that the current Anglo-centric focus leaves a significant gap in extant literature. This is not to suggest that we cannot learn more about PPP developments in the UK. However, the relatively undiversified understanding of PPP developments means there is much to learn about the variety of practices likely to exist in relation to accounting/accountability for PPP schemes internationally. What research there has been on PPP developments outside Anglophone world does indicate the potential insights that a more internationally diversified PPP research agenda could offer. For instance, Petersen's (2010) findings (within the context of the Danish PPP experience) provide an interesting counterpoint to contest the domineering capacity of "privatising" influences, which have been so widely criticised in studies concentrating on Anglophone PPP developments (see for example English and Guthrie (2003), Newberry and Pallot (2003) and Newberry (2004)). Further Ke *et al.* (2010) highlight (from their investigation of PPP risks in China) that risk matters can be influenced by prevailing institutional conditions in a given locale, with important implications for procuring specific PPP schemes.

As already indicated, examining international uses of PPPs would be useful in revealing the diversity of practices evident in the global development of PPPs, and would allow researchers to analyse, compare and contrast different PPP policies and practices, facilitating a synthesis of innovative PPP developments and ideas and a sharing of these developments and ideas across jurisdictional boundaries. A global analysis of the proliferation of PPPs could also facilitate an examination of the robustness/adaptability of the PPP concept in the face of the uneven political, institutional and socio-cultural conditions existing internationally. Perhaps through analysis of publicly available information or surveys of stakeholder perceptions, international differences could also be examined for conditions that may be seen to enable or constrain the development of PPP policy and/or the establishment of viable partnership arrangements across countries. Research could also focus on PPP experiences in developing nations, thus advancing our knowledge of the ways in which this approach enables and/or constrains government authorities in the developing world with respect to the unique public investment challenges they face. In all, the lack of international research on PPPs means that there is still much to know about the diffusion of this concept across the globe, and what we can learn from this diffusion to aid the development of best practice.

3.4 Considering post-procurement implications

Another concentration apparent within the reviewed literature is the relative attention given to PPP-related procurement issues. This is evidenced mainly in terms of the significant research effort devoted to matters such as PSC calculation, appropriate VFM appraisal, accountability for and regulation of PPP appraisals, and the contractual structuring of PPPs, all of which are key elements that facilitate PPP procurement. The many studies engaging with the merit and worth of PPP also have a procurement orientation, focusing on the early outcomes of PPP schemes and how such outcomes measure up against procurement expectations. Aside from a small number of studies exploring *ex post* evaluation processes of government/public authorities (see Table VI), there has been little scholarly inquiry into operation of PPPs post-financial close. Given the significant attention afforded to PPP procurement matters in popular debate, one can comprehend why this research gap has persisted. Nonetheless, the lack of research activity on post-procurement stages highlights a large break in our knowledge of PPPs. PPP schemes are contracted to operate for periods of 30 years or more, tie up significant amounts of government funding over this period, and involve the cooperation of public, private and other stakeholders who are brought together by a convoluted suite of PPP contractual relationships. English and Baxter (2010) also indicate that PPP agreements are persistently and recursively negotiated in response to unanticipated contingencies (e.g. changes in technology, government policy and community needs), meaning that the VFM implications of these agreements can change significantly over time.

Given what has just been described, the post-procurement operation of PPPs presents significant and novel dilemmas for management accounting and other practices used in aid of managing, monitoring, and controlling such schemes. As such, future research should pay more attention to these issues in aid of better understanding the operational management and governance of PPPs. For example, future case studies or surveys of stakeholder perceptions could help to shed light on how PPP schemes are made to work efficiently and effectively once they are in place. An *ex post* archival analysis of tendering and contracting arrangements over a cross-section of PPPs could be used to identify characteristics and configurations that best show a relationship with the observed smooth operation of these schemes. Future research to progress knowledge on the post-procurement operation of PPP schemes could also consider more in-depth case analyses of PPPs in action, much like the approach described in section 3.1 in relation to following the detailed performance of VFM appraisal. This would help in examining the "lived" consequences of recognised managerial challenges (e.g. reconciling unexpected contingencies and changing needs with contractual rigidities, managing complexities arising from the many parties involved, and managing partner (under)performance when long term working relationships need to be maintained), as well as how such operational challenges are practically worked through in aid of sustaining VFM. It could also shed light on the situated roles and effects of accounting practices and the challenges confronted by the performance of such practices in the ongoing management of PPPs. Of course, as described previously, "commercial-in-confidence" sensitivities may present obstacles to the achievement of this style of research, but this is a challenge that should be enthusiastically accepted by researchers rather than shied away from.

In attending to the post-procurement operation of PPPs, considerations of the "hybrid" working of PPP schemes is likely to be necessary. In an extensive review of "alternative" management accounting research provided by Baxter and Chua (2003), a call is made to explore "hybrid" forms of organisation (i.e. forms of organisation that have blended previously discrete areas of activity and/or ideology together) that have emerged from the globalised and networked society in which we now live. PPPs arguably exhibit hybrid qualities, as they present instances where commercial imperatives are mixed together with public service values. So as part of their ongoing operation, PPP schemes are likely to involve struggles created by fundamental differences and clashes between public/private motives, styles of management and ethos (Broadbent and Laughlin, 2003b). Baxter and Chua (2003) suggest that the presence of hybrid tensions require researchers to re-examine current presumptions about management accounting practice in contexts like PPP schemes. As such, future research should attend to "hybrid" tensions that manifest in the post-procurement operation of PPPs, and consider how they enable/constrain the effective management and governance of such arrangements. In particular, the implications of hybrid tensions for applications of management accounting practices within PPPs (such as in resource management, organisational performance and management control) should be considered. To theoretically inform such investigations, Baxter and Chua (2003) advise reference to notions of hybridity developed in the post-colonial cultural literature (see, for example, Bhabha (2003) and Said (1978, 1994)). In accounting research, Liisa Kurunmaki has explored the notion of hybridity in relation to the interpenetration of professional expertise (Kurunmaki, 1999, 2004). These theoretical developments may be useful for informing studies of the hybrid tensions associated with PPPs, but their applicability would need to be more carefully considered by future research attempting such investigations.

Beyond studies of the ongoing management of PPPs, future scholarly inquiry could also examine the post-procurement implications of PPPs from more systemic and holistic perspectives. With regard to the former, case analysis could consider the broader ongoing effects and challenges of introducing a PPP scheme into a government service portfolio. What are the portfolio-wide effects of introducing a PPP scheme (and their attendant accounting and accountability arrangements)? And what challenges are faced in establishing a PPP scheme as an integrated part of the same? With respect to holistic assessment, examples are now starting to emerge of PPP schemes that have reached the end of their concession period. One such case is the M4 Motorway in Sydney, Australia, which under the conditions of the Project Deed was "handed back" to the NSW Government (becoming the responsibility of the NSW Roads and Traffic Authority) on 16 February 2010, ending an 18 year PPP concession managed by Statewide Roads (Statewide Roads, 2010; Transurban, 2010). These emerging examples of PPP schemes reaching completion could be studied for the costs and other effects that unwinding these schemes have for government. They also provide opportunities for more holistic reviews of the full workings and life-cycle effects of PPP schemes than has been presented in the literature to date. Such reviews would provide important insights into the lifetime outcomes of such schemes for matters such as VFM and the management of risks, their (financial/nonfinancial) merit and worth, and the public legacy of such schemes in terms of the "value" of the infrastructure/services they leave behind after they have run their course.

3.5 Attending to the implications of the global financial crisis

One area where interesting research opportunities are likely to emerge is with respect to the implications for PPP schemes stemming from the global financial crisis (GFC). Beginning with a loss of investor confidence in securitised mortgages in the USA, the wide ranging effects on financial markets that have flowed from this have prompted many to proclaim this crisis as the largest financial shock since the "Great Depression" of the 1930s (see for example Economist Intelligence Unit (2008), Stewart (2008), and Reuters (2008)). The GFC has had significant ramifications for the mobilisation of PPPs, particularly as it has substantially constrained the amount of private financing available on the scale required to meet the needs these schemes. At present, the consequences of this are unclear. Could this result in PPP schemes reverting back to more "traditional" sources of public financing, such as the issue of government bonds? Might governments opt to take on a greater financial stake in PPP schemes through lending or investing under conditions similar to those of a private lender/investor? Could there be implications for the procurement process, where financing requirements are tendered separately from the capital and operating objectives of a PPP? Public authorities are likely to experiment with these and perhaps other possibilities in continuing to pursue PPP schemes in light of the new financial constraints faced. What is of interest is how these experimentations might result in further systemic evolutions of structures and practices tied to PPP schemes and the novel implications these changes may have for the tendering, organisation, management and control of such arrangements. This may bear some interesting new issues for the involvement of accounting, accountability and related practices in such schemes.

3.6 Addressing research impact on policy and practice

The final commentary presented here relates to the degree that the extant literature presented in this review has influenced practices. It has already been noted that the research reviewed in this paper seems to have wide interdisciplinary appeal, as evidenced by the range of publication outlets in which this work appears (see Figure A2, Appendix). But given all the research that has been undertaken, much of which is critical, to what degree has this wide scholarly appeal translated into an impact on the direction of PPP policy and/or practice? Unfortunately, the answer to this question is not obvious. For example, while a tempering of off-balance sheet priorities has long been observed, at least in rhetoric if not in substance, and that this tempering may in some way have been influenced by academic criticism, it seems the greatest stimulus for greater on-balance sheet reporting of PPP schemes in most recent times has been the adoption of International Financial Reporting Standards (Productivity Commission, 2009; Select Committee on Economic Affairs, 2010). Likewise, there have been incremental changes to the transparency of PPP schemes, such as through the development of project databases, public availability of contracts and contract summaries, which again could be at least partly attributed to critical pressure applied by academe. However, government reporting and document availability with respect to PPP schemes still remains partial, inconsistent and consequently insufficient. Scholars have been engaged to produce industry reports on aspects of PPP schemes (e.g. Allen Consulting Group and the University of Melbourne (2007), Arthur Andersen & Enterprise LSE (2000), and Demirag *et al.* (2010)), but their impact on practice is not known. And the bearing of academic criticisms on matters such as VFM appraisal, risk identification and management, seems limited, as policies and practices on these matters have been relatively stable for some time.

So what can be done about this relative absence of practical effect as part of a future research agenda? One avenue would be to recognise that criticism is important but it is not always sufficient for impacting on policy and practice. Future research also needs to strive for more hopeful contributions that may assist with not only identifying problems, but also informing development of "solutions" – "how to do things [better] and carry on" (Ahrens *et al.*, 2008, p. 852). In this regard, the work of English *et al.* (2010) is a particularly promising development, in that they not only recognise problems with current PPP performance auditing practices, but attempt to translate their evidence on such practices into innovative propositions in aid of improving frameworks for the evaluation of operational PPP schemes. Much like English *et al.* (2010) promote with respect to PPP performance auditing, perhaps we as academics should consider our capacity to be something more than "watchdogs" acting on behalf of the public interest. Perhaps there is a role for academe in mobilising our collective knowledge and skills to make a difference by taking on a greater "sheepdog" role, seeking to advise on matters of policy and practice in more positive and constructive ways, without compromising our academic integrity.

4. Conclusions

The aims of this paper are to examine the contribution of the extant literature in terms of the role and effects of accounting in PPP arrangements and to consider the current research gaps and possibilities for future research in this area. The paper was structured around several research themes derived from Broadbent and Laughlin (1999, 2004). While this paper presents the many contributions made to date in understanding PPPs and their institutional context, it also highlights a number of areas to which the PPP research agenda can be extended. On this basis, several potentially fruitful research opportunities within this field are proposed, which mainly have in common a need to question the nature and functioning of PPPs and to further consider the complexities of PPPs in action. Given that PPPs are now well established in many countries around the globe, and that the number and economic value of these arrangements is steadily growing, expanding the PPP research agenda in the ways suggested in this paper are viable and essential. As has always the case in this research domain, there are likely to be challenges in pursuing the suggested research opportunities, particularly where information on the detailed workings of PPP procurement and/or operation is sought. Overcoming these challenges will not be easy, but this does not mean that they should be shied away from. Rather, it is hoped that the aforementioned research opportunities give cause for researchers to address these access barriers with renewed vigour, in aid of developing and expanding the potential of academe's contribution to a constructive public debate on the nature, structure, working, governance, merit and limits of PPP schemes.

Notes

1. There is no universally accepted terminology for PPPs in either general discourse or the scholarly literature. For example, in the UK, these types of arrangements are typically referred to as private finance initiatives (PFIs). In the Australian State of New South Wales (NSW), PPPs were once referred to as build-own-operate-transfer (BOOT) schemes, and have also been labelled privately financed projects (PFPs). While PFIs, PFPs and BOOTs can have more particular definitions attached to them, they are often used interchangeably with the term PPP, blurring the practical distinctions. For the purpose of consistency, the term PPP will be used in place of other terms in the text except in quotes, where a paper's original terminology has been maintained.
2. The term "Value for Money' is defined in section 2.2.
3. Steering media are defined as institutions that influence the direction of how public services should be provided (English and Guthrie, 2003).
4. Steering mechanisms refer to legislation, regulations and other channels that help to define and operationalise steering media imperatives (English and Guthrie, 2003).
5. It is noted that the choice of discount rate for PPP schemes is a matter of significant controversy, particularly with respect to the relative discounting rates applied to public and private financing options, as indicated by Grout (1997, 2003).
6. Understandably, this evokes some of the institutional influences discussed in Section 2.1.
7. *Force Majeure* generally refers to loss arising from some "greater force', such as a natural disaster or other "act of God".
8. In both Akintoye and Chinyio (2005) and Grimsey and Lewis (2002a), past experiences were highlighted as a prime contributor to risk identification and assessment.
9. In particular, they report that the differing risk concerns of public partners, project sponsors, and senior lenders relate to their distinct PPP priorities, being to the achievement of VFM, establishing impacts on equity return, and issues affecting debt servicing and the likelihood of default respectively.
10. From their survey of public sector project managers associated with PPP schemes, the authors identify six key drivers of VFM that are implicitly tied to such savings, being: risk transfer; the long term nature of contracts, including whole life costing; the use of output specifications; competition; performance measurement and incentives; and private sector management skills.
11. It should be noted that Pollock *et al.* (2007) disputed similar earlier claims made by HM Treasury in 2003 to this effect, by challenging and finding fault with the methodology and evidence underlying these claims. While this does not directly impact on the findings reported by Allen Consulting Group and the University of Melbourne (2007), it does highlight the importance of a robust approach and evidence base in sustaining the credibility of "merit and worth" evaluations.
12. These include enabling the community to benefit from earlier access to infrastructure due to faster completion times of PPP projects, advantages accruing from lessons learned by government about PPP procurement and their application to future projects, and gains achievable through combining management, construction and ongoing operations for any given project into the one deal (Allen Consulting Group and the University of Melbourne, 2007).

13. According to Koppenjan (2005), collaborative intentions are likely to lead to improved quality and effectiveness through the development of common understandings, aligned objectives and interests, mutual trust, collaborative project innovation shared project commitment, and the like.
14. Several papers examining accounting standard setting in the context of PPPs were excluded on the basis that PPPs served merely as a context for examining the issue of accounting standard setting at a more general level. These papers are Broadbent and Laughlin (2002, 2005b), Hodges and Mellett (2002, 2005), and Rutherford (2003).
15. Stafford *et al.* (2010) notes that distinctions between Spanish/British approaches are due to differences in the respective accounting regulatory environments and the history and timing of PPP development in each country. With regard to the lack of transparency conclusion, Stafford *et al.* (2010) argue that Spanish cash accounting practices and deferral of expenses obscures reporting of PPP financial effects, while aggregation and lack of disclosure of government guarantees as contingent liabilities in the UK makes future cash flow risks of PPP schemes difficult to determine.
16. As stated by Watson (2003), these restrictions to public scrutiny include: diffusion of disclosure; difficulties in maintaining whole-of-government accountability; lack of clarity on risk allocation and management; and the concealing effect of commercial-in-confidence provisions.
17. For example, in the Australian context for PPPs, there has been pressure to release contractual documents and other papers relating to specific PPP arrangements such as the Cross City Tunnel, a toll road located in the city of Sydney.
18. Boundary objects are theorised as things that are malleable enough to take on different meanings across multiple groups, yet sustains enough of a conceptual “core” to maintain some form of common identity across the same. For more information on the theorisation of boundary objects, please refer to Briers and Chua (2001) and Star and Griesemer (1989).

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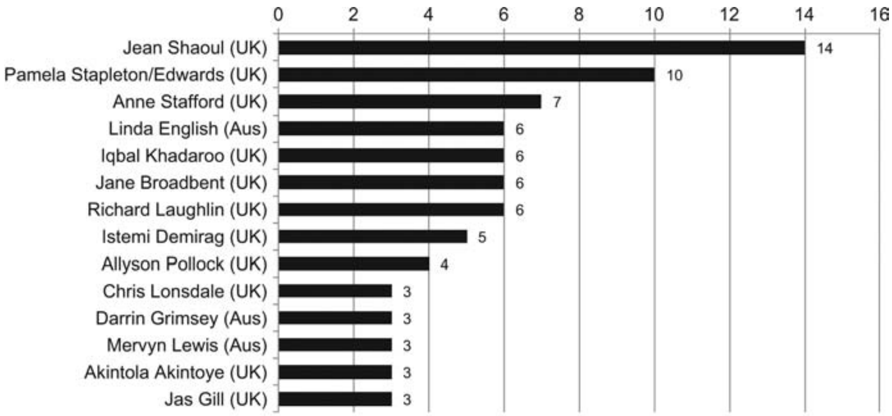
Appendix. Quantitative analysis of reviewed literature



Notes: This is a count of the number of publications (within the reviewed set of articles) in which each author has been named. This does not take into account the relative contribution of each author to co-authored publications

Figure A1. Reviewed articles by author frequency (contribution to three or more publications)

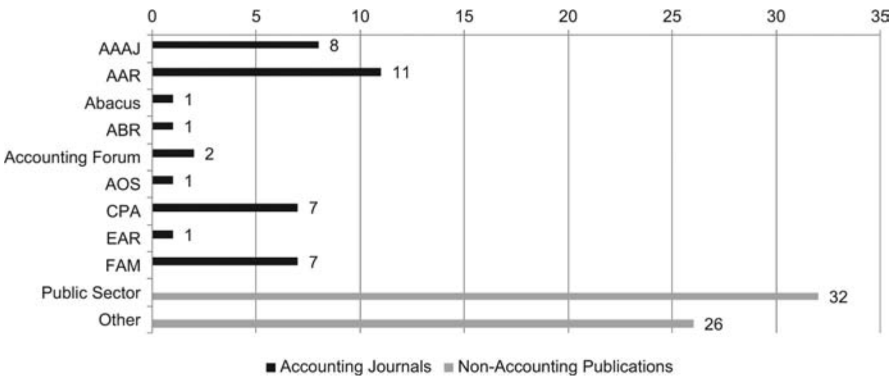
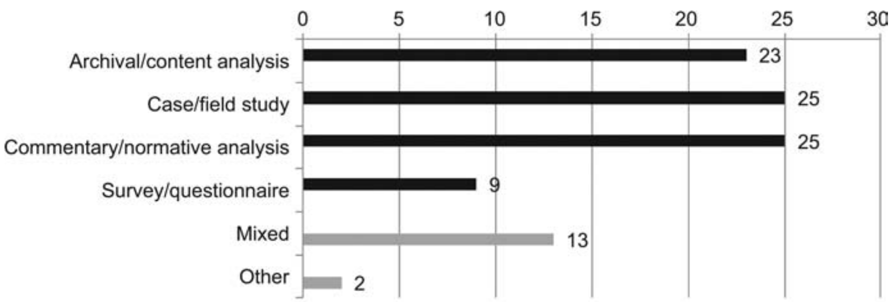


Figure A2. Reviewed articles by publication source



Note: The classification scheme used in this chart has been loosely adapted from Broadbent and Guthrie (2007)

Figure A3. Reviewed articles by research method applied

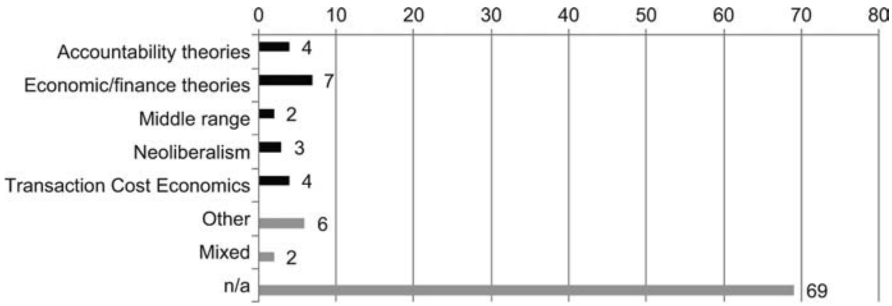


Figure A4.
Reviewed articles by informing theories explicitly identified

Note: The "Other" category groups together papers mobilising theories that only appear once in the extant literature to date

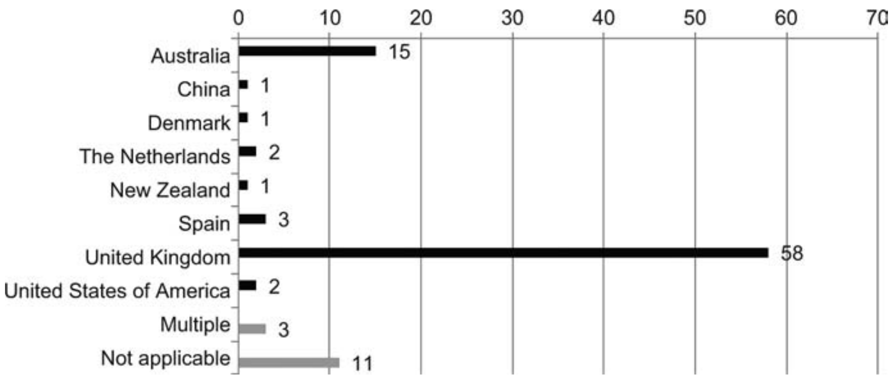


Figure A5.
Reviewed articles by country focus

About the author

Paul Andon is currently a Senior Lecturer in the School of Accounting at UNSW. He specialises in case-based research methods and concentrates on investigating the situated performance (e.g. development, uses and effects) of contemporary management accounting practices. Research interests relate public private partnerships, public governance and accountability, customer profitability and valuation, risk management, and the career development of accounting professionals. He has published in internationally refereed journals (*Management Accounting Research*, Critical *Perspectives on Accounting*, Australian *Accounting Review*, Pacific *Accounting Review*), presented his research at a range of international conferences, and has contributed to books on contemporary management accounting practice. He is a qualified Chartered Accountant. Paul Andon can be contacted at: p.andon@unsw.edu.au