

A framework for understanding the policy process for construction

by

Brian Andreas

A Doctoral Thesis

Submitted in partial fulfilment of the requirements

for the award of

the degree of Doctor of Philosophy of Loughborough University

December 2019

© Brian Andreas 2019

Abstract

The policy process for construction in the UK does not seem to deliver the intended results, yet relatively little research has been carried out in this area using the analytical frameworks and tools available from other disciplines. The approach known as Political Economy Analysis (PEA) was investigated by its application to policy for construction using sectoral level policy (Construction Industrial Policy, CIP) as the unit of analysis. The research strategy was interpretivist and the research design was cross-sectional.

Two parallel, but mutually reinforcing, objectives were adopted. The first was, by use of the PEA approach, to generate an understanding of the way in which policy for construction may be shaped. The second objective was to develop a form of PEA which would be relevant to the construction sector. Primary data was generated through semi-structured interviews with a wide range of individuals each with current experience of the industry. Where possible, observations were triangulated using secondary sources. Data was analysed and a framework developed using abductive methods, with PEA concepts as the starting point.

Reasons for flawed CIP were found to include: the difficulty of defining a universally agreed scope of the industry, the near-unique vulnerability of the sector to economic cycles, the UK's tendency towards policy churn and the focus of policymakers on announcement rather than longer term strategy and implementation. However the persistence of CIP in different forms despite these structural and institutional challenges was found to rest on both fundamental need, in part related to the public sector's role as main client, and on important political interests. Use of PEA was found to stimulate a system-wide approach which brings to the fore the identification of structural causes and networks of influence. PEA allows a visualisation of causal links to be generated which has potential as a means of communication and to support a collaborative style of working.

Attempts to understand CIP, and more specific areas of policy, will be much better informed if CIP is acknowledged to be integral to any wider societal understanding of industrial policy, and as a product of the political economy context. The utilisation of the analytical framework of PEA, as a sensitizing device, is capable of yielding a richer understanding of the nature, limitations and potential of policy for construction whether at the level of the sector, sub-sector or specialised policy topic. Further research in this area is capable of helping to create over time a body of knowledge which can foster a more widely shared, richer, understanding of the nature of policy for construction. Recommendations for future work include use of the PEA framework in the comparison of UK construction policy with that of other countries and other sectors.

Key words: policy, strategy, industrial policy, political economy analysis, construction.

Acknowledgements

First of all I need to thank Loughborough University for making a studentship available to enable me to undertake the research reported here. Special thanks must go to Dr Scott Fernie, my lead supervisor, who was the most instrumental in enabling me to begin and continue my journey as a researcher. Dr Fernie and Professor Andrew Dainty, supporting supervisor, displayed the utmost patience as they helped me navigate the subsequent four years.

The main change in direction of research was represented by the decision, early in the second year, to adopt a political economy perspective. Some of those who contributed, wittingly or otherwise, to the new orientation included Dr Adam Saunders of Oxford University and, from Loughborough, Dr Jeremy Leaman, Dr Lee Boshier, Professor Sohail Khan, Dr Claire Furlong and Dr Jon Cloke.

This part of the thesis represents a good opportunity to thank all participants for their kindness in making time available for interview, and for their interest in and support for this research. Of course privacy rules mean that they cannot be named, but they will know that without them there would be no research to report, so they each have a special place in this story. It was pleasing that several went so far as to express enjoyment of the process, and many also wished to see the finished product. I hope the result may be of interest.

Alongside the more formal academic journey countless conversations, part-conversations, debates and friendships form the backdrop without which the journey would barely have been begun or sustained, and would certainly have been a lot less fun. Loughborough's Architecture Building and Civil Engineering researcher hub has been crucial here and, if anyone there was sceptical about why someone late in their career should embark on the PhD path no one ever showed it. It would be invidious to pick out individual names but I use this opportunity to sincerely thank all of them.

Preceding the current academic journey, and the many individuals already referred to, was a professional exploration with another cast of supportive and challenging protagonists. Therefore I also need to thank the many colleagues with whom I worked in industry over the course of a long career associated with the manufacture of building products and the building of manufacturing facilities.

There is one rather smaller group I need to thank, namely those who I got to know through secondment into BIS (Department for Business, Innovation and Skills) during 2013 including Dr Denis Walker and others linked to the construction unit team. Once again, despite my sudden arrival from a very different working environment, I experienced kindness, patience, the opportunity for debate and the most supportive working community.

I thank my daughters Fay, Sophie and Helen for suspending their disbelief when their dad announced his intention to become a student again. A special mention must be made of my uncle, Douglas, who would have been both amused and delighted that at least one other Andreas has chosen to associate himself with Loughborough. So, after so much support from so many, the final result ought to be better, but those weaknesses which have not been eradicated reflect only my own shortcomings in absorbing and dealing with what was offered by all those around me. The end product is dedicated to my parents.

Summary of Table of Contents

Abstract	i
Acknowledgements	ii
Summary of Table of Contents	iii
Table of Contents	iv
Table of Figures	viii
Abbreviations used	ix
Note on Style	xii
1 Introduction	1
2 What is meant by ‘Construction Industrial Policy’ (CIP) ?	14
3 A potential framework: ‘Political Economy Analysis’	44
4 Methodology	67
5 Data Sources and Collection	77
6 Observations and Initial Analysis	86
7 Using Political Economy Analysis Theory	115
8 Reflection and Discussion	144
9 Conclusions	174
References	188
Glossary of terms used	200
Appendices	203

Table of Contents

Abstract	i
Acknowledgements	ii
Summary of Table of Contents	iii
Table of Contents.....	iv
Table of Figures	viii
Abbreviations used.....	ix
Note on Style.....	xii
1 Introduction.....	1
1.1 Summary of the structure of this chapter	1
1.2 Construction Industrial Policy: is there a problem ?.....	2
1.3 Design of research.....	3
1.3.1 The research problem	3
1.3.2 The perspective offered by Political Economy	5
1.3.3 Research question, aim and objectives	6
1.3.4 Summary: research problem, question, aim and objectives	10
1.4 Anticipated outcomes and value of research	11
1.5 Structure of this report.....	11
2 What is meant by ‘Construction Industrial Policy’ (CIP) ?.....	14
Introduction	14
2.1 What is Construction?.....	14
2.2 What is Policy?	17
2.2.1 Policy Analysis for Construction: a research gap	20
2.2.2 Emerging questions for participants	25
2.3 What is Industrial Policy?	26
2.4 Instruments of Policy	30
2.5 CIP – context, other sectors and other countries.....	33
2.5.1 CIP – in the context of Industrial Policy	33
2.5.2 CIP – Other sectors, other approaches	36
2.5.3 CIP – Other countries	37
2.6 Summary of questions for Participants prompted by Chapter 2.....	39
Summary of Chapter 2	41
3 A potential framework: ‘Political Economy Analysis’	44
Introduction	44
3.1 Development of the meaning of the term Political Economy.....	44

3.2	Political Economy Theory	46
3.2.1	Searching for the core theory	46
3.3	From PE to PEA	49
3.4	How has the PE approach been used ?	50
3.5	Relevance to research into Construction Industrial Policy	52
3.6	The research gap re-defined	53
3.7	A potential PEA framework for CIP.....	54
3.7.1	Themes	54
3.7.2	A Framework.....	57
	Summary of Chapter 3	66
4	Methodology	67
	Introduction	67
4.1	The nature of policy analysis.....	67
4.2	Policymaking, policy analysis, and implications for Methodology	69
4.3	Is interpretivism an appropriate approach ?.....	69
4.3.1	Compatibility of interpretivism with the chosen PE approach	69
4.3.2	The use of conscious reflection	70
4.4	Theory, models and frameworks	72
4.5	Method.....	73
4.5.1	Research design	73
4.5.2	Implementation.....	74
4.6	The Interview Guide.....	75
	Summary of Chapter 4	76
5	Data Sources and Collection.....	77
	Introduction	77
5.1	Participants	77
5.2	Interviews	78
5.3	Data preparation	78
5.4	Coding of transcripts.....	79
5.5	Reflection on data collection methods.....	79
	Introduction.....	79
5.5.1	Cohort of participants	79
5.5.2	Language and the use of the Interview Guide	80
5.5.3	What was said ? – Transcription	81
5.5.4	Coding and its limitations	82
5.5.5	The influence of recent events on data and interpretation	83
5.5.6	The role of the interviewer	84

	Summary of Chapter 5	85
6	Observations and Initial Analysis	86
	Introduction	86
6.1	Sequence of presentation of observations and analysis.....	86
6.2	Observations.....	87
6.2.1	General	87
6.2.2	The major challenges facing the industry.....	87
6.2.3	The nature of the Construction Industry and policy for construction	89
6.2.4	Historical Legacies	92
6.2.5	Aspects of change.....	98
6.2.6	Representation, communication and influence.....	102
6.2.7	Potential for Reform or Change	103
6.3	Initial Analysis.....	105
6.3.1	Policy for Construction or just Policy ?.....	105
6.3.2	Is construction unique – and if so, how ?.....	106
6.3.3	Construction Industrial Policy – why bother ?	108
	Summary of chapter 6.....	113
7	Using Political Economy Analysis Theory	115
	Introduction	115
7.1	Structure.....	115
7.1.1	Structure – examples.....	118
7.1.2	Structure – why doesn't it receive more attention ?	124
7.1.3	Structure – so what ?	127
7.2	Institutions	127
7.2.1	Institutions – examples	128
7.2.3	Institutions – summary: cause or effect ?.....	137
7.3	Agency.....	138
7.3.1	Using agency to challenge observation and analysis.....	139
7.3.2	Agency - example	139
7.3.4	Agency - summary.....	141
	Summary of Chapter 7	142
8	Reflection and Discussion	144
	Introduction	144
8.1	Research objectives, aim, question and problem	144
8.1.1	Research objectives	144
8.1.2	Research aim	163
8.1.3	Research question.....	165

8.1.4	Research problem.....	167
8.2	A personal reflection by the researcher.....	170
8.2.1	Autobiographical note	170
8.2.2	Research design	171
8.2.3	Research: data interpretation, analysis and development of findings.....	172
	Summary of Chapter 8	173
9	Conclusions	174
	Introduction	174
9.1	Contribution to knowledge.....	174
9.1.1	An approach to understanding and developing policy for construction using the framework of Political Economy Analysis.....	175
9.1.2	Findings concerning Construction Industrial Policy	176
9.2	Limitations.....	180
9.3	Recommendations for future research	183
	Summary of Chapter 9	185
	References	188
	Glossary of terms used	200
	Appendices	203
	Appendix A: Policy analysis tools from political science	204
	Appendix B: Interview Guide (final version, 4 September 2018).....	208
	Appendix C: List of all nodes used for coding.....	213

Table of Figures

Figure 1: Summary of research problem, question, aim and objectives.....	10
Figure 2: Research Plan.....	13
Figure 3: Themes of Industrial Policy, and the UK.....	35
Figure 4: 'Steps in a problem-driven PE Analysis'.....	60
Figure 5: 'Problem-Driven Framework for applied political economy analysis'.....	61
Figure 6: Sample questions for Political Economy Analysis.....	63
Figure 7: The research process.....	65
Figure 8: Challenges as perceived by participants.....	89
Figure 9: Final template of the PEA model.....	116
Figure 10: Final template of the PEA model (Figure 9 repeated).....	147
Figure 11: PEA model for CIP (indicative).....	149
Figure 12: PEA model for 'Low Quality'.....	150
Figure 13: Narrative for 'Low Quality'.....	151
Figure 14: Potential connections between individual policy models.....	152

Abbreviations used

AC	Automotive Council
ACF	Advocacy Coalition Framework
BIM	Building Information Modelling
BIS	Department for Business, Innovation and Skills (replaced on 14 July 2014 by BEIS)
BEIS	(from 14 July 2014) Department for Business, Energy and Industrial Strategy
Brexit	The exit of the UK from the European Union
CIB	International Council for Research and Innovation in Building and Construction (formerly 'Conseil International du Bâtiment')
CIC	Construction Industry Council
CIP	Construction Industrial Policy
CLC	Construction Leadership Council
CME	Co-ordinated Market Economy
CMR	Construction Management Research
CSR	Corporate Social Responsibility
DECC	Department for Energy and Climate Change (amalgamated with BIS to form BEIS, 14 July 2016)
DFID	Department for International Development
DG Growth	The Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs
DTI	Department of Trade and Industry (BIS, then BEIS, is the successor Department)
DLO	Direct Labour Organisation
EME	Emerging Market Economy
EU	European Union
FDI	Foreign Direct Investment

FMB	Federation of Master Builders
GFCF	Gross Fixed Capital Formation
GDP	Gross Domestic Product
GVA	Gross Value Added
IP	Industrial Policy
ISC	Industrial Strategy Council
LME	Liberal Market Economy
MHCLG	Ministry of Housing, Communities and Local Government
MLG	Multi-Level Governance
MMC	Modern Methods of Construction
MME	Mid-spectrum Market Economy
MNC	Multi-National Corporation
MNE	Multi-National Enterprise
MSA	Multiple Streams Analysis
NPM	New Public Management
ODI	Overseas Development Institute
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics
OITO	One in Three Out (superseded 'One In Two Out') (BIS, 2016)
OSM	Offsite manufacture (for construction)
pdf	portable document format
PE	Political economy
PEA	Political economy analysis
PET	Punctuated Equilibrium Theory
PFI	Private Finance Initiative
PPP	Public Private Partnership
PR	Proportional Representation
RBV	Resource-Based View (of the firm)

RCT	Rational Choice Theory
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RMI	The repair, maintenance and improvement sector of construction
ROAMEF	Rationale, Objectives, Appraisal, Monitoring, Evaluation and Feedback (the HM Treasury model of policymaking)
SIC	Standard Industrial Classification
SIP	Systemic industrial Policy
SME	Small and Medium-sized Enterprise
STEM	Science, Technology, Engineering and Mathematics
TR	Théorie de la Régulation (Regulation Theory)
TUC	Trades Union Congress
VoC	Varieties of capitalism
WTO	World Trade Organisation

Note on Style

Conventions used within the text of the thesis are as follows:

- **Quotations:** Actual words used by a speaker or source are shown within quotation marks and in italics, with interviewer's words shown in parenthesis, for example:

'There is not a coherent government construction policy (OK) no it doesn't exist'

- **Protection of anonymity of participants:** As far as possible, participants are referred to in a way in which their identities are protected – for example, the gender neutral pronoun '**they/their/them**' is used when referring to any individual participant
- **Capitalisation in the text:** With certain words, an upper case initial letter is used in order to convey a specific meaning: for example 'Development' is used in referring to development economics (international aid) to distinguish it from the word 'development' in the more generic sense of where, say, any situation is undergoing change. A similar approach is adopted for Political Economy, and Political Economy Analysis, namely, in order to distinguish more specific meanings used in this thesis from the more generic.

1 Introduction

Chapter highlights:

Research context – Construction Industrial Policy – design of research – anticipated outcomes – structure of the report

1.1 Summary of the structure of this chapter

The context for this research is the development of policy for construction in the UK, including sector-level policy (Construction Industrial Policy, CIP). The reason for selection of this broad area is to do with a persistent and recurring sense of a mismatch between the expectations of policymakers and the capacity of the industry to respond. Evidence for this statement will be drawn from the literature, published in the last two decades, including that part of CIP which is often referred to as the Construction Reform movement and typified by the Egan report (1998), Wolstenholme (2009), 'Construction 2025' (HM Government, 2013), and Farmer (2016), and from more recent events. It will be shown that several researchers have made the case for the use of a wider perspective, or analytical lens, when seeking to understand construction policy including the use of techniques from a variety of disciplines which have tended not to be used to date. While policy for the sector as a whole is the starting point, this cannot always be distinguished from the mass of individual policies which in some way influence the sector, therefore the research attempts to be relevant to an understanding of policymaking at both sectoral level and to the making of more specific policy within the sector.

The puzzle at the root of interest in this area is why policymakers over decades should have returned to make new attempts at reform, against a long history of apparent failure. Questions which are provoked and which seem to demand attention include: is the concept flawed or is the process by which policy is made or implemented flawed, and how does the experience with policy for construction fit into that with industrial policy in general ?

The design of research is examined in the conventional sequence of a discussion of the research problem, question, aims and objectives. The potential value of using a wider field of view, and the use of other disciplines to understand CIP, are explored. It will be shown that a major field of academic inquiry, namely political economy (PE), has rarely been deployed in understanding the process by which policy for construction is developed, and yet PE has a very important relevance both to the understanding of industrial policy and to the understanding of the tendency for policy outcomes not to match those intended by policymakers. A form of PE known as Political Economy Analysis (PEA) has been the subject of much work in connection with a wide range of policy problems in developing countries in recent years and its potential application to understanding policy for construction is assessed.

Thus the evidence suggests the existence of both a research gap – namely, a lack of application of PE to policy for construction and to CIP in particular – and a potential solution in the form of a methodology which can be imported from another field and adapted for use

with policy for construction. Therefore the means proposed by which the research problem, question, aims and objectives will be addressed is the adaptation of a PEA framework for use with policy for construction, and the way in which this will be achieved and tested are described. The essence of the research is the use of a PEA approach to explore policy for construction and to simultaneously use the latter as a means of testing and developing such PEA methods. In the closing sections of the chapter, the anticipated outcomes and value of the research are discussed and the structure of the thesis as a whole is set out.

1.2 Construction Industrial Policy: is there a problem ?

There is abundant evidence of discontent with the performance of the UK construction industry over several decades, and of a desire for the industry to improve. The repeated attempts at reform have been documented for example by Murray & Langford (2003), and Wolstenholme (2009). On the other hand, a particular low point for engagement between industry and government is recorded by Adamson & Pollington (2006:10) when a 'Group of Eight' senior industry figures approached the then prime minister Margaret Thatcher to discuss current concerns. After an exchange which appears to have lacked a sense of dialogue the eight were sent away *'with a flea in their collective ear, emphasising that the industry's fate was in its own hands'*. Other researchers have sought to analyse the history and 'make sense' of it (Green, 2011). The interest among policymakers in construction policy as a whole, rather than just at the level of individual specific policy measures, continued up to the present time with the publication in 2013 of a strategy for the industry (HM Government, 2013), the simultaneous formation of a Construction Leadership Council (CLC) to implement the strategy, and the launch of the so-called Sector Deal for construction (HM Government, 2018a). The CLC was still in operation in late 2019, having survived several changes in government and prime minister since its inception. Nevertheless, some of the choices of ambition declared in the 2013 strategy have been challenged – for example Smiley *et al.* (2014) have argued that the reasons for prioritising the use of Building Information Modelling (BIM) have not been adequately considered by policymakers.

This long-established stream of reports, recommendations and strategies shows that construction policy has frequently received attention from policymakers. According to Designing Buildings Wiki (2019), there have been 86 reports on the industry since 1944. While the preparation of these reports was triggered by a variety of causes - such as the need for housebuilding, carbon reduction or a need for economic recovery – many of the themes were common between reports, including skills, efficiency (and productivity), innovation, quality, collaboration and 'image' (the last of these can be seen as shorthand for an inability on the part of the industry to recruit and retain workers in sufficient numbers). While an individual report might acknowledge certain strengths possessed by the industry or refer positively to progress since the preceding report (Wolstenholme, 2009) in general they tended to be quite critical of the industry (Egan, 1998) and would often refer in strident terms to the need for, say, fundamental change or *'transformation'* (HM Government, 2013). More recently the flow of reports and recommendations shows no sign of abating (Farmer 2015; HM Treasury 2015b; Infrastructure and Projects Authority 2016a; HMG 2018). Quite apart from these attempts at change the Grenfell Tower disaster, and the subsequent Hackitt review (Hackitt, 2018; MHCLG, 2019) have brought into the public domain serious shortcomings of the industry. The

collapse of major contractors such as Carillion has increased the sense of disquiet that something is seriously wrong with the industry (Plimmer, 2018) and, by implication, with the policy context within which it operates. The overall sense therefore is that, despite many determined attempts at change, the industry is seen as problematical, yet slow to change and unresponsive. In the view of Murray and Langford (2003:201) the persistent nature of the themes of attempts at change ‘.....reflected an industry inflicted with a long-term illness’. In the same vein, ‘Modernise or Die’ was the title of a report on the industry by Farmer (2016).

This perceived failure to change in relation to many aspects of construction (whether the trigger for change is considered a market failure or a policy failure) has given rise to a literature on the subject (Green 2011; Smiley *et al.* 2013; Foxell & Cooper 2015). Several researchers, who have considered the history of the construction improvement agenda, have issued calls for the wider context of construction policymaking to be taken into account and for the use of multiple perspectives or disciplines in order to improve understanding (Fernie *et al.* 2006; Bresnen 2007; Green 2011; Smiley *et al.* 2014). In some of these cases researchers have made initial steps towards exploring the theory and value of doing so (*ibid.*).

In summary of this section, based on a consideration of the Construction Reform movement and related policy initiatives, there is good evidence for a problem with the process of Construction Industrial Policy which has persisted over many decades up to the present time. Many of the individual themes have also persisted. A number of researchers have drawn attention to this unfortunate history and have sought to explain it. Among these researchers there is a degree of consistency that, for a more effective and useful explanation, a wider context from within which policy emerges must be considered, including the use of multiple disciplines which have tended not to be applied to construction policy. Assessment of the literature will be returned to later, within a more detailed examination of the meaning of CIP (chapter 2). Hence the present research is a response to both the underlying problems associated with policy for construction and to the calls in the literature for the application of new methodologies to improve understanding. On a more personal note, the researcher’s own professional experience in industry and on the fringes of construction policymaking circles has also served to confirm the need for such understanding.

1.3 Design of research

1.3.1 The research problem

The literature on construction reform and related policy calls for a wider perspective on CIP, and the use of methodologies employed in other fields which to date have infrequently, or never, been explored for the specific benefit of CIP. The underlying challenge is one of understanding the change process: how does one make sense of an apparent disconnection between new policy ideas and their ultimate implementation. In other, more mature, fields of policy investigation the deployment of multiple specialised methodologies – for example, the use of a specific category of policy analysis tool (many of which are described in Appendix A) – would probably be appropriate and beneficial. In the case of CIP, given the relatively rudimentary state of knowledge about the change processes involved in the sector, a

theoretical framework is sought which might allow the researcher to maintain a panoramic, holistic, view of the change process and its constraints.

The starting point for the area of concern for the research was a sense of mis-firing in the policy processes at sector level. Policy at sector level may sometime be generated in an explicit way (Construction 2025, for example) and at other times may simply be an aggregation of policy which has evolved in many different sub-sectors and areas of activity across the industry. In what follows CIP will tend to refer to the former and policy for construction (or construction policy) will tend to refer to the latter, but clearly there is a great deal in common: 'policy for construction' can be seen as the more comprehensive term. As will be seen, CIP is used within this research is used as a starting point, and unit of analysis, of an attempt to understand the wider context of policy for construction. The connecting thread between these two perspectives is that of policy processes – a mismatch between policy intent and outcome implies that the policy processes are failing and should therefore be explored. A more detailed discussion of the terms policy, industrial policy and construction industrial policy is included in chapter 2.

Therefore **the research problem** can be expressed as:

'For construction policy, given the historic pattern of apparent difference between expectations and outcome (or 'mis-firing'), how can this be understood and is it possible that future policymaking could avoid conforming to the pattern ?'

Formulating the research problem in this way implies the choice of a focus of research, policy for construction, which is very broad, and, as will be seen, possibly lacking sufficiently definable boundaries. Equally, the aspiration of putting to use in such a context some kind of new theoretical base and method which permits an holistic or systemic approach will also create its own challenge. These two aspects, context and method, individually and together are likely to create a substantial barrier to be overcome in terms of data collection and interpretation if progress is to be made towards gaining insight into policy processes at a systemic level as distinct from a more policy-specific approach. On the other hand, to the extent that such apprehension of an impediment might be justified, it would also seem to be shared by any actor and policymaker wishing to engage with the idea of an overarching approach to policy for the sector. Hence, any arguments which might exist against a proposal to select CIP and a systemic approach are very probably relevant not only to the research itself but also to the would-be policymaker considering the next round of construction reform: they might even form part of the explanation of policy imperfection being sought. Therefore, despite the potential challenges to following through any exploration of the research problem as defined here, it seems worthwhile and even necessary to define the research problem as indicated.

One further point should be made here which is relevant to the choice of methodology which must support the research process. The research problem as defined implies that the research to be carried out can be characterised as one of policy analysis, even if it is to avoid being limited to a political science approach. More is included on this topic in later chapters, but at this stage it must be recognised that 'policy analysis' may deal with two broad strands, namely the technical or technocratic and the political (the distinction is made in Hallsworth & Rutter, 2011:25). Any policy solution, if it is to be followed through, depends on both aspects being

accommodated. The policymaker will be confronted by the limits to rational policymaking in terms of, for example, uncertainty, limited information, complexity and the consequences (of policy decisions) – collectively termed ‘bounded rationality’ by Simon (1972) - compounded by uncertainties to do with the political process itself. Policy analysis needs to take account of the bounded rationality of the policymaking context, including the different and possibly competing narratives which actors (stakeholders) carry, and their different interests. Hence the orientation of the present research is not around the technical solutions to, say, skills or innovation, though these topics and many others will be referred to later, but instead it focusses on the processes involved in making and implementing political decisions for the sector. One reason for emphasising this orientation is to ensure that important aspects of policymaking for construction, which may tend to be overlooked or minimised when a public report is to be published, are adequately addressed. It is therefore necessary for any chosen methodology to be compatible with the qualitative and interpretative nature of the data and subsequent analysis.

1.3.2 The perspective offered by Political Economy

The previous section (1.3.1) set out some of the consequences of the definition of research problem for any chosen theoretical positioning, including its capacity to allow an holistic or systemic view, one which is compatible with policy analysis, and an interpretative approach to data and analysis. The required theoretical base may draw on political science but should not be limited to that field. It has also been indicated (section 1.2) that the existing literature calls for a multi-disciplinary approach and that the wider context of policymaking for the sector should be taken into account.

The case will be made that a Political Economy (PE) perspective offers many, and probably all, of the characteristics sought in a theory for grounding the required analysis. Political Economy (PE) will be explored in depth in chapter 3. At this stage of an initial reference to PE it can be noted that because it deals with, amongst other concerns, the interface between state and industry or firm, and because theories of the firm and state are fundamental parts of PE (Glykou and Pitelis, 2011), as a consequence industrial policy in general has often been associated with PE (Grant 1982; Chang 1994). For example, the extent to which a government should, and might beneficially, involve itself with matters of industrial policy is not only a question of immediate interest to those concerned with industrial policy and CIP but also is a matter at the heart of PE. Some of the debate around effectiveness of industrial policy for construction reflects a much broader, and constantly evolving, debate in both academic and public domains about the place of industrial policy in a developed economy. For example, some would argue that sector-based policy is a mistake and others argue against the very concept of industrial policy: either of these positions, if valid, might render the present research futile. To summarise this introduction to PE, there is an inherent affinity between industrial policy and PE, and hence this feature alone amounts to a reason why its use should be considered for the analysis of CIP in particular.

Furthermore, in recent years the application of a methodology known as Political Economy Analysis (PEA) in other fields of policy (development economics, referred to here as Development), suggests a way forward for the formation of an explicit analytical framework for

policy for construction. The contribution to knowledge, should it prove possible to design and test such a framework, would lie in the transfer of learning from a field of inquiry outside of the construction sector and its validation in the new context.

A literature review has been undertaken which confirms the limited extent to which a PE/PEA approach has been utilised in examining policy for construction in the past, and is included in Chapter 3. It will be shown that, while some of the individual elements commonly associated with PE (for example, the use of game theory) may have been examined in a construction context, this has tended to be without reference to the overall systemic sense of PE, or indeed without explicit reference to PE at all. In particular, because attention has tended to be addressed to a very specific policy context rather than to the method, no attempt has been made to evolve a framework which could be used in a repeatable way across different construction policy contexts. It is concluded that, while the evidence strongly points towards the potential benefits to be gained from the use of PEA in connection with construction policy, there is negligible evidence that an attempt has been made to use PEA in this way.

A final point should be made in connection with PEA and its relevance to the declared definition of the research problem. The discussion of the problem (in section 1.3.1) opened with an acceptance that the planned focus of research may prove to be too broad and its boundaries not susceptible to definition, and has argued that despite this initial difficulty such a constraint must be accepted if the pattern of apparent mis-firing of construction policy is to be understood at all. However it will be shown in chapter 3 that writers on PEA tend anyway to recommend a starting point of sector level analysis before proceeding to analysis of a specific problem or of a specific policy, and in fact the reason for their recommendation has much in common with the orientation of the present research – namely that some understanding of sector-level systemic features will in effect form part of the input into any, more specific, sub-sector or problem analysis (see for example, Poole 2011)¹. Hence, even a brief encounter with a PE/PEA perspective and practice would seem to point towards compatibility with the present framing of the research problem.

1.3.3 Research question, aim and objectives

The preceding sections have determined the research problem, namely the need to seek an understanding of policy mis-firing, potentially leading to an avoidance of similar results in the future. It has also been concluded that it would seem advantageous to make use of PE theory as a means of understanding both industrial policy in general and CIP in particular. Furthermore, the requirements of a theoretical framework for understanding and analysing CIP have been explored and it was concluded that the approach known as PEA would seem to offer the necessary features (systemic, political, multi-disciplinary, interpretative *etc.*). The research question needs to be framed in such a way as to bring these threads together in a manner which will allow a contribution to resolving the research problem to be made. The essence of the research would therefore seem to consist of an exploration of policy for construction by the use of a PEA approach while simultaneously using the unit of analysis

¹ Strictly speaking PEA writers tend to call for a sequence of analysis of country/sector/problem (see section 3.7.2.1). The present research has adopted the sector as its starting point, though additional sources will be used in order to take account of 'country' level features.

(CIP) as a means of developing and testing PEA methods. In other words, there are two mutually reinforcing aspects to be addressed: crudely put, this amounts to the use of PEA to understand CIP while also using CIP to understand PEA.

The research question can therefore be expressed as follows:

‘To what extent is a Political Economy approach of value in understanding the mis-firing of construction policy, and in particular can techniques of Political Economy Analysis used in other policy arenas be adapted for use in the sector ?

Given the research problem as defined, and the consequent expression of the research question, it is necessary to consider what might be gained if the question were to be successfully answered. Clearly a single piece of research will not solve long-standing embedded problems overnight yet, if successful, it should be capable of opening up new avenues for researchers and, potentially, for other actors or stakeholders wishing to engage in the policymaking process for the industry. The contribution to knowledge should be in terms of both substance (insight into construction policy) and method (a framework to facilitate future research into policy for construction).

Key contributors in the field of Political Economy urge that its use should not stop at explanation but that it is in essence a normative approach, that is, it is a search for better policy outcomes (Drazen 2000 and Pearce 2005); the normative aspect of PE is described in more detail in section 3.2.1. It is therefore necessary to consider whether the more ambitious aim of improving CIP processes, namely offering a normative approach rather than mere explanation, should form part of the research aim. However, while use of PE for CIP in a normative sense is an ultimate purpose of the development and testing of an analytical framework, at the current very embryonic stage of understanding of the use of PE for CIP, moving beyond analysis to prescription is considered to be too onerous an objective. (Though, inevitably, the analysis is expected to reveal new options for change and thus is expected to be of value to any later researcher or practitioner looking for a more prescriptive outcome.) Hence the research aim has been expressed carefully in order to define a realisable outcome from the current research, with the intent of contributing to a resolution of the identified research problem.

Therefore the overall **aim of the research**, combining elements of substance and method, can be expressed as:

‘To contribute towards an improved understanding of the policy process for construction by means of the formation and testing of a new analytical framework based on a Political Economy perspective’

The research aim provides a marker for the orientation of the rest of the research process. Specific objectives set out at this stage provide an indication of the route by which the aim is to be achieved. The level of ambition, already significant as discussed earlier and arguably implying a degree of risk of being unfulfilled, must be high enough to promise tangible and worthwhile outcomes from the completion of the selected objectives while also being moderated by the realities and constraints of data collection, interpretation and analysis.

Therefore, in order to respond to the research problem, question and aim identified above, the following supporting **research objectives** have been selected as appropriate. A brief

justification is included after each objective; further explanation regarding methodology is included in chapter 4.

1. *To formulate a method of policy analysis which is grounded in theory and which can be used in a repeatable way, as a framework, across multiple areas of policy for construction*

Advantage is to be taken of work carried out on Political Economy in general and on PEA in particular, as used in development economics. PE enables inter-disciplinary thinking and analysis. PEA offers specific techniques which appear to be compatible with use for construction policy. PEA supports the idea of starting at the sector level.

In order to act as a starting point for future research, what is sought, in addition to grounding in theory (PEA), is a working method or framework which, having been proved to be effective in supporting analysis of CIP itself, can also be used for analysis of other aspects of construction policy. Given the inter-disciplinary nature of the research, and the interpretative quality of much of the anticipated primary data and analysis, the proposed framework is not intended to be an attempt at a mechanistic solution to policy analysis but it should support a search for meaning and cause or influence. It should enable communication and provoke challenge rather than offer a 'policy by numbers' fix.

2. *To use and test the framework by means of a study of policy at sector level (Construction Industrial Policy)*

Consistent with the research being based on the two mutually illuminating aspects of CIP and PEA (see section 1.3.3, opening paragraph), the application and testing of the framework is a necessary part of its formation and improvement. The geographical focus of the research is the UK, as it is in that country where the identified policy problem exists, albeit shared to some extent with other countries (Müller, 2016).

The area of interest for the research has been specified as policy for construction and the processes by which this it evolves (section 1.3.1). Within this broad field, policy at sector level, Construction Industrial Policy as exemplified by sector strategies such as Construction 2025 will be used as the unit of analysis, within which the framework will be evolved and tested.

What is most of interest are not the technical or technocratic aspects of policy (which vary considerably between individual policy topics such as say BIM or 'skills') but the political aspects of policy processes which are more likely to be shared across different policy areas, and which

tend to be neglected in the literature (see section 1.2). The anticipated diversity and contrast of views can best be captured by means of one-to-one interviews, of a semi-structured nature where confidentiality can be respected in order to foster reflective thought. Documentary evidence will be used to supplement and triangulate the oral data. The inter-disciplinary and often interpretative nature of the research requires that the framework is not to be imposed at the outset but ideally should emerge from the data.

Given the breadth of the focus of research (policy at sector level) and both the size and diversity of the industry (see section 2.1) any data collected, whether from participants or documentary sources and however extensive, can best be seen as a sampling of the theoretical mass of available data. Hence the research method can best be described as a cross-sectional design rather than a case study (Bryman, 2012:76) . Further discussion of methodology can be found in chapter 4.

The adoption of a single cross-sectional study, rather than several, can be criticised, but for the reasons explored earlier, the research design is sufficiently ambitious that the addition of a second parallel study was considered likely to render the research unviable given the resources and timeframe available. Nevertheless, it was anticipated that while an additional full study, say on a specific construction policy problem, is not feasible, the data to be collected and analysed would allow the viability of application of any emerging framework to one or more additional cases to be appraised *within* this research.

3. *To establish what can be learnt, as a result of the study, both about the policy area itself and also about the use of the framework*

In order to fulfil the research aim the research needs to show that use of the PE/PEA approach contributes towards improved understanding of policy for construction. In exploring CIP the relevance and nature of the framework will also be explored. While the twin themes (PEA and CIP) are inextricably linked it will be important to demonstrate what has been learnt about each.

4. *To establish the degree to which the framework responds to the research problem and research question, and whether the framework can form the basis of a new approach to policy for construction in the future.*

This is the concluding objective and represents the process of comparing findings with the research problem and question. It is also an opportunity to evaluate the relevance of the overall approach, including the PEA framework, to future applications in connection with

policy for construction whether in an academic context or by policy stakeholders.

1.3.4 Summary: research problem, question, aim and objectives

Figure 1 summarises the key points from this section on design of research.

Figure 1: Summary of research problem, question, aim and objectives

TITLE	'A framework for understanding the policy process for construction'	
Research Problem	For construction policy, given the historic pattern of apparent difference between expectations and outcome (or 'mis-firing'), how can this be understood and is it possible that future policymaking could avoid conforming to the pattern ?	
Research Question	To what extent is a Political Economy approach of value in understanding the mis-firing of construction policy, and in particular can techniques of Political Economy Analysis used in other policy arenas be adapted for use in the sector ?	
Research Aim	To contribute towards an improved understanding of the policy process for construction by means of the formation and testing of a new analytical framework based on a Political Economy perspective.	
Research Objectives	1	To formulate a method of policy analysis which is grounded in theory and which can be used in a repeatable way, as a framework, across multiple areas of policy for construction.
	2	To use and test the framework by means of a study of policy at sector level (Construction Industrial Policy).
	3	To establish what can be learnt, as a result of the study, both about the policy area itself and also about the use of the framework.
	4	To establish the degree to which the framework responds to the research problem and research question, and whether the framework can form the basis of a new approach to policy for construction in the future.

1.4 Anticipated outcomes and value of research

Ultimately the value of the research will lie in its ability, in the context of UK construction industrial policy, to contribute to ‘... a better understanding of the conditions which are conducive – or otherwise – to the implementation of better policies’ (using the phraseology of Tompson & Price 2009 who reported on a wide variety of policy case studies in ten OECD countries, from a PE perspective). More precisely, the contribution of the present research towards these ends, applied to policy for construction, will be the formulation, testing and possible refinement of a Political Economy methodology of sufficient robustness and flexibility that it can be repeatedly and consistently applied in the majority of UK construction policy contexts. Consistent with the twin, interdependent, themes of the research, the findings in terms of CIP should demonstrate new insight into policy processes which are of value to stakeholders. In this way the scope for building a substantial database, and archive of analysis, can be created which is expected to be of increasing value as information is added and research developed.

The ultimate users of the insights gained are expected to be any stakeholders associated with policymaking for construction and the built environment including academics, industry practitioners, policymakers and other stakeholders. Those concerned with construction policy in other countries may also find the research to be of interest, in that the same PEA approach could be applied in any number of different economies. Likewise, the work may prove to be of interest to the wider industrial policy and political economy community.

1.5 Structure of this report

Chapter 1: The underlying reason, context and purpose of research are explained, the proposed design of research is described and the anticipated value of findings and conclusions is assessed.

Chapter 2: The landscape and meaning of Construction Industrial Policy is dissected. Perspectives from other policy arenas, including other industry sectors and other countries are utilised. A literature review identifies a research gap concerning the extent to which political science theory has been applied to policy for construction. Finally, a revised view of the meaning of Construction Industrial Policy for the purpose of this research is formulated.

Chapter 3: The nature of a Political Economy perspective, and the use of Political Economy Analysis are described; the case is made that, given the nature of industrial policy and Construction Industrial Policy in particular, Political Economy Analysis appears to offer a helpful theoretical framework for the analysis of Construction Industrial Policy yet to date it has not been used. Potential analytical models, as described in the literature, are described.

Chapter 4: The nature of policy analysis and its implications for research methodology are discussed. A methodology is required which is compatible with inter-disciplinary working. The need for a consciously reflective approach is described. The reasons for selection of

interpretivism as the research paradigm are explained. The place for theory, models and frameworks is explored. Research methods compatible with the chosen methodology and the kind of data sources available are set out. The design of the guide for use with semi-structured interviews is introduced.

Chapter 5: Chapter 5 sets out detail concerning data sources and methods of data collection processes. It includes reflection on aspects of both areas, and their impacts on later interpretation in order to support part of the aim of research, namely the formation and testing of analytical methods.

Chapter 6: This chapter introduces data and observations based on interviews conducted. Initial analysis and interpretation, including triangulation with other sources, is described.

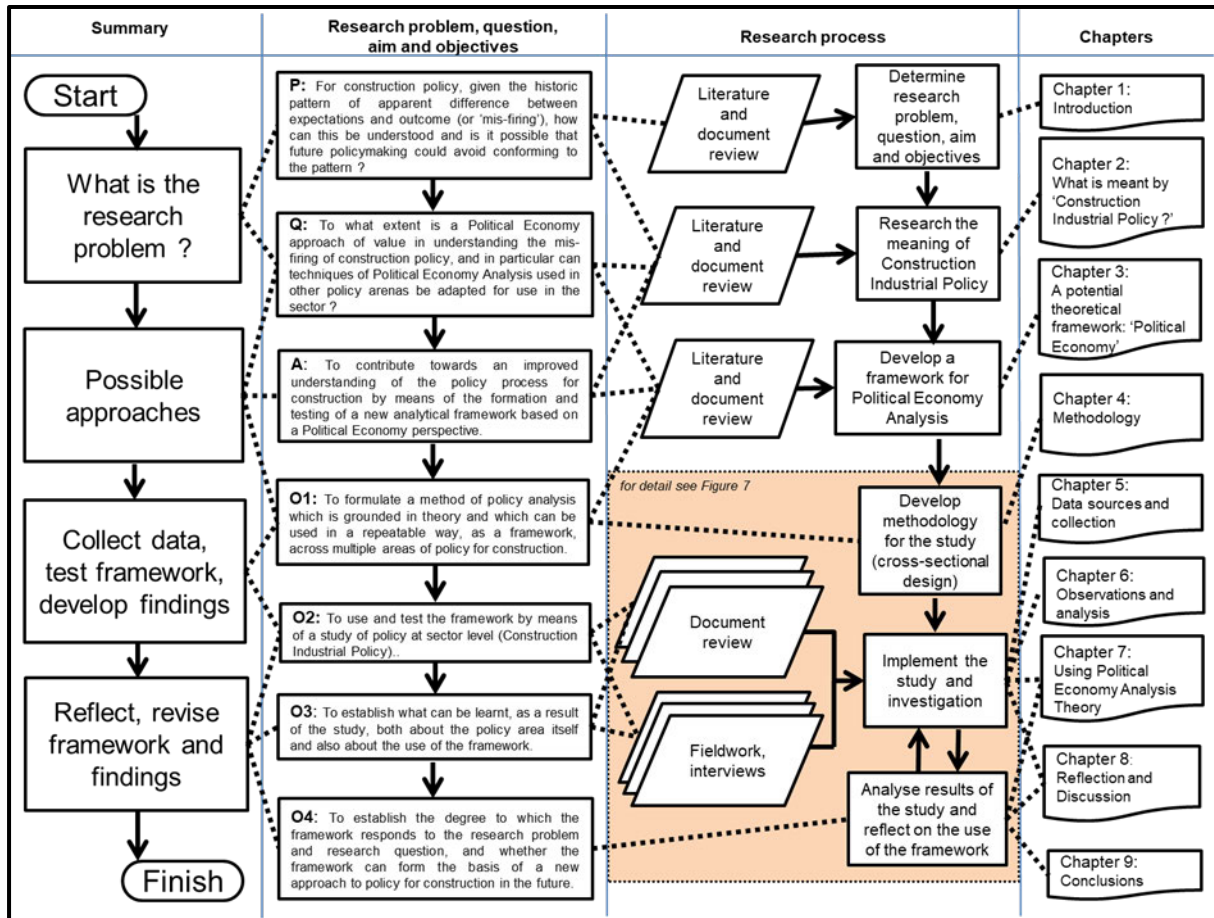
Chapter 7: Chapter 7 begins to test the emerging findings derived in the preceding chapter against Political Economy Analysis concepts and models. The way in which theory is used to illuminate the subject of research, and vice-versa, is described. The final version of the model is explained.

Chapter 8: This chapter includes a discussion of findings and reflections on the extent to which the research objectives, aim, questions and, hence, problem have been addressed. A reflection on the role of the researcher is included.

Chapter 9: The concluding chapter begins with a discussion of the key findings in terms of their contribution to knowledge. An assessment of the limitations of the research design, and their possible impact on the conclusions, is provided. Recommendations are made for future research. The chapter, and the thesis, close with a summary of the most significant findings from the research.

The sequence of chapters, and how they relate to the research process, and to the research 'problem, question, aim and objectives' is illustrated in Figure 2, in simplified form. Further information concerning the research process is included in chapters 3 and 4.

Figure 2: Research Plan



2 What is meant by ‘Construction Industrial Policy’ (CIP) ?

Chapter highlights:

What is ‘construction’ ? – What is ‘Policy’ ? – a research gap regarding policy for construction - What is ‘industrial policy’ ? - Instruments of policy – The context of CIP – Questions arising from the review - What is meant by ‘Construction Industrial Policy’ ?

Introduction

The scope of any proposed Construction Industrial Policy² will be affected by assumptions surrounding the meaning of the concept. Therefore this section seeks to break down the term CIP into its component parts before reassembling them as the complete phrase. First, the composition of the industry is explored. Second, interpretations of the meaning of ‘policy’ are considered, together with a review of methods of policy analysis. Within this section on policy is included a literature review of the limited extent to which such methods have been applied to policy for construction. The next section addresses the meaning and implementation of ‘Industrial Policy’ (IP). Additional depth is then provided by a consideration of the history of CIP in the UK, a comparison of industrial policy for the construction sector with IP both in other sectors, and with that in other countries. Throughout a sensitivity is maintained towards further areas of inquiry emerging from this review which may need to be explored with participants through the interviewing process. The chapter concludes with a discussion of the meaning of the term ‘CIP’ itself.

2.1 What is Construction?

The range of any kind of policy for construction is likely to be influenced by assumptions regarding which activities are to be taken into account. The end products of those activities commonly included within ‘Construction’ vary from the largest infrastructure projects such as high speed rail, motorways, power generation, buildings including homes, schools and commercial developments, through to modest projects involving refurbishment, repair and maintenance – see, for example, BIS (2013) and Rhodes (2018). In addition to the variety of the end product, the industry can be said to include a variety of activities including not just construction at site, but also manufacturing, the supply chain, and professional services such as architecture, design and project management (Pearce, 2003).

² There is a place for a discussion of the difference in meaning between ‘policy’ and ‘strategy’. In this thesis the phrasing ‘industrial policy’ has been adopted as the larger category within which ‘Construction Industrial Policy’ is located, but it is accepted that in some contexts some may prefer to refer to industrial strategy rather than industrial policy.

There are at least three significantly different ways in which to look at the industry that are relevant to the current context. First, Groak (1994) made the case that the industry is not really a discrete industry at all but is best seen as '*organised as agglomerations of projects*'. Groak's view serves as a challenge to conventional assumptions about the industry. Groak was speaking with innovation (which is itself a matter of generic attention by policymakers, as it is relevant to many sectors) and the needs of major construction projects in mind, apparently anxious to ensure that the benefits of innovations which are developed well away from conventional construction activities could be harnessed. Groak's approach may be useful in some contexts of policymaking (say, investment in R&D by Government) but perhaps not when the widest possible view is to be taken of policy, as in the present case.

The second and third ways of defining the industry were explored by Pearce (2003:9) and both remain influential. Pearce made the distinction between a narrow and a broad view of construction, the former being restricted simply to activities on the construction site itself. Use of the 'narrow' view, which corresponds to industry data periodically reported on by the Office for National Statistics (ONS) (2019), has the advantage of clarity and simplicity. ONS takes for the narrow definition section F ('Construction') of the Standard Industrial Classification (SIC) comprising:

- SIC 41: Construction of buildings
- SIC 42: Civil engineering
- SIC 43: Specialised construction activities.

Pearce argued that the narrow view is limited in how it acts to explain the value created by the industry. In contrast, the broad view includes large parts of the supply chain such as product manufacturing (which may be increasingly significant should off-site manufacturing gain ground in that specific activities which may once have fallen automatically into the first definition are instead absorbed into the second), distribution (logistics), professional services, 'direct labour' and even the unreported informal construction sector. The distinction between narrow and broad definitions is far from trivial in consequence: Pearce (*ibid.*:24) estimated that the broad definition represents an industry responsible for twice the contribution to GDP as that of the narrowly defined industry, with similarly major implications for numbers of employees, numbers of individual businesses, and the categories of activities brought into consideration by policymakers. More recently Gruneberg and Francis, (2019) have made similar claims, when pointing out that the industry is more significant than is commonly assumed in terms of value added in the economy and numbers employed.

Of the three approaches to understanding the scope of the industry which have been considered the broad view proposed by Pearce seems to be the most consistent with the orientation of the present research which attempts to avoid prematurely excluding context from policy. Consequently, the 'broad' definition of the industry will be adopted here unless otherwise specified.

As will be seen in later chapters, however, the scope of the industry is very much in the eye of the beholder: the meaning is fluid, and perhaps even contested as choice of meaning (whether explicit, tacit, or unconscious) has consequences for policy. Does it matter ? For the

local builder or micro-enterprise perhaps it is of little interest. From Government's³ point of view it is simply necessary to measure the size, and therefore scope, of the industry in one way or another if only as part of measuring, managing and being accountable for the economy in its entirety. One driver for such definitions is that of ensuring that 'Value Added' by economic activity in one sector is not duplicated when measuring Value Added by another sector, so that national net Gross Value Added (GVA) data is used when reporting on and tracking Gross Domestic Product (GDP). The design of such data generating processes has been the subject of challenge – see for example Coyle (2016) who attempts a survey of the debate and literature⁴. Once a particular method of calculation becomes embedded in past and present statistical processes, and hence in the macroeconomic decision making which makes use of such data, it becomes hard to shake off: the costs and consequences of change would be significant and hence there is a natural presumption, or inertia, in favour of letting things be as they always have been. If however policymakers then feel obliged to align future policy with an inappropriate sense of the scope and performance of the industry, it seems at least possible that there will be negative consequences from doing so: the available data may simply be misleading as a representation of reality.

It is possible to speculate further that each stakeholder will tend to have their own preferred meaning of 'construction', partly influenced by habit, partly by interest (a builder of motorways may not wish to be troubled much by the world faced by a local builder). Definitions of scope and data measurement processes ('*what* is to be measured, *what* is not to be measured?') are both open to challenge. Yet the data are crucial inputs to any subsequent decision-making process. Data, usually the official data, are those which are quoted in political discourse and the official data are what will tend to influence public opinion ('how many workers are there in construction, how much do we need to worry job losses or gains?'). Any change to locked-in data measurement processes, as illustrated by Coyle's paper (*ibid.*) is likely to be contested: change becomes a political, not just an economic question. It follows that the existing definition – in the present case, the measurement of construction activity - is also a political choice, even if it is left unchanged or even if it is apparently not subject to active debate as such.

In the context of the positioning of the present research as a political economy approach to understanding policy, this discussion can be concluded with the observation that choice of meaning of 'construction' may itself be a political act, because it has consequences for policy. To the extent that meaning may influence design and implementation of policy, and that contested meaning may lead to tensions within the policymaking process, again it is at least possible that this area represents one weakness in the concept of an overarching policy for the industrial 'sector' of construction.

During this exploration of the meaning of 'construction', a number of aspects have emerged where the perspectives of stakeholders (and hence of participants in the research) would be helpful:

³ 'Government' with an upper case 'G' is used here to denote central government and its processes within the UK. The word with a lower case 'g' will be used to denote generic government processes, specified more precisely when appropriate.

⁴ Coyle, whose paper is titled 'The *Political Economy* of National Statistics' (emphasis is this researcher's) points out that well-being, environmental and digital economy aspects are not taken into account in calculating GVA. She also points out the 'locked-in' nature of GDP data processes internationally – global consensus is required for change. Meanwhile GDP (and of course sector data), she argues, becomes increasingly misleading.

- What is the scope of the industry ? What should be included and what left out ?
- What are your reasons behind defining the scope in this way?
- What are the consequences (of the selection of scope) for policy ?
- What is the participant's experience of policy and CIP – what do they mean ?

2.2 What is Policy?

The word 'policy' in the present context is used to denote some kind of attempt at shaping the way operations and business are conducted. A conventional view of it would stress the sense of a top-down process beginning with the central government executive, often starting from a set of political promises made in an election manifesto, determining the direction in which the industry, or a part of it, should change (for example, in relation to apprenticeships). This would be followed by legislation in parliament to enshrine policy decisions in law which, depending on the individual example, may enable funds to be generated (via the apprenticeship levy, say) and disbursed (training grants) together with provisions for enforcement (some kind of penalty on the businesses which fail to comply). However, while policy – in the sense of decisions by the executive concerning desired changes to the industry – may indeed be made in this way, the legislation route for policy is very far from being the sole option. Whatever the policy area (health, transport, construction) there are many varieties of policy instrument available to the would-be policymaker. Legislation itself is often not necessarily the most effective way of addressing perceived problems (for example one cannot legislate for an improvement in productivity). Many of the apparent challenges for construction, as illustrated in Construction 2025 for example, require a more multi-faceted approach. Government may see itself, and be seen by industry, as the key actor in terms of its capacity and power to set an agenda and to provide a venue for businesses and other stakeholders to come together to create new consensus about how change is to be achieved, but in practice power and the influence is widely dispersed and constantly evolving. In such circumstances any individual policy step (the drive to increase the use of BIM, for example) may require a combination of changes at Government level (insisting on the use of BIM in larger projects commissioned by the public sector, say) and a series of relatively voluntary changes within industry to its mode of working. In such circumstances 'policy' may begin to take on the appearance of a managerial challenge faced by a large corporation when faced with a change process, including the risk that strategies developed by a remote group of executives and political leaders fail because of lack of support from those most affected and least consulted.

For the present research a sensitivity to the multiple ways in which policy may be shaped, with input at various stages from many stakeholders in so-called policy networks, is an important principle. Policymaking and implementation are often far more chaotic and contingency-driven than a conventional model would suppose. Outcomes are shaped as much by the particular circumstances in which policy is developed, including the relative resources and power of actors in the policy network, as by the intent of the so-called policymaker, who may not even be a single identifiable person or entity. While these opening remarks are necessary in order to indicate a context for research into policy for the construction industry, all of them, and many other aspects, are to be explored in greater depth both in literature reviews (in chapters 2 and 3) and within the subsequent analysis of interviews. The nature of policy, how it is shaped, and what its purpose is, constitutes a major theme throughout the thesis.

An introduction to policy and policymaking will often begin with a reference to the conventional view of the policy cycle. A survey of different formulations of the cycle is included in Cairney (2012:32), who also offers a generic model of: agenda setting, policy formulation, legitimation, implementation, evaluation, and 'maintenance, succession or termination'. A more compressed version of 4 stages is discussed by Jann and Wegrich in Fischer, Miller and Sidney (2007), which comprises agenda-setting, 'policy formation and decision-making', implementation and finally 'evaluation and termination'. Some of these stages deserve attention in their own right (agenda setting, for example, can be a highly political process). The conventional, and apparently rational, approach of the cycle is recognised within UK Government policymaking in the ROAMEF⁵ model: Rationale, Objectives, Appraisal, Monitoring, Evaluation and Feedback (the 'Green Book', HM Treasury, 2018:9). One would expect, and perhaps even hope, that official guidance would seek to perpetuate the idea of rational rather than irrational policymaking yet, as Cairney and also Jann and Wegrich conclude, the policy cycle idea is not generally seen as representative of how policy is actually made – for example there is rarely a clean uninterrupted progression forward from one stage to another and often different stages are in progress simultaneously. In any event the elements of ROAMEF seem to leave out anything which might interface with a political decision-making dimension. The ROAMEF model tends to present policymaking as a technocratic process, where politics and interests are placed to one side. Research among Whitehall policymakers, reported by Hallsworth, Parker and Rutter (2011), included the comment that '*Virtually every interviewee dismissed policy cycles like ROAMEF as being divorced from reality*'.

Yet the policy cycle idea is helpful to the extent that the tasks and policy phases identified can be referred to as categories of activity which may be associated with any one policy decision, even if the model tends to mislead in other respects such as sequence and rationality. Jann and Wegrich (*op cit.*) acknowledge and describe the many criticisms of the policy cycle approach while nevertheless offering a stern defence of its usefulness in policy teaching, research and organising the 'vast' and growing literature relating to political science. They summarise its relevance as being '*an excellent heuristic device*' and '*an important conceptual framework*', but they are clear that it '*does not offer a comprehensive causal explanation for the whole policy process*' (*ibid.*:57,58).

If the policy cycle view is of such limited relevance then other ways of understanding the subject are needed. Cairney (2012:24) explored the various meanings of policy including both the occasions when it is associated with new intervention using so-called instruments of policy (which are discussed below, section 2.4) and also those occasions when policy exists by default when, for example, government inaction in the face of external change can amount to *de facto* policy of real significance. One specific example of policy by default has been proposed in the preceding section (2.1), in discussing the locked-in nature of GDP and GVA data and the political forces hindering change. In the same spirit of recognition of the need for a comprehensive view of policy as Cairney, the proposition has been made by Klein and Marmor in Moran *et al.* (2006) that Policy '*is what governments do and neglect to do*'. There is also a sense in which overt government policy, even after policy measures have been

⁵To be accurate, the Green Book refers to ROAMEF as an 'Appraisal and Evaluation' cycle rather than a policy cycle as such, implying that politics has been deliberately separated out from this version of the cycle.

deliberately decided, can become diluted or will evolve by the time they emerge as actions on the ground – as suggested by Lipsky in Hill (1997) when discussing the effect of policy at ‘street level’. These observations would tend to suggest that matters of implementation of policy need also to be kept within the present analytical frame and confirms that a broad perspective on the workings of policy needs to be maintained.

The conclusion, therefore, is that policy can be seen, and must be judged, in terms of its outcomes rather than necessarily that which is written down, intended or legislated. A new policy decision emerges into a pre-existing policy environment and social context within which it may or may not have a significant influence (so-called path-dependency in policy: Cairney, *op. cit.*:76). But what can be said about the process of development and emergence of new policy, with its implicit potential for change? While in an ideal world, at any one point in time, policy would be continuously adjusted as and when needed to match a perfect design (the ‘comprehensive rationality’ view of policy formation: Cairney *ibid.*:94), in practice the information load for policymakers and the potential network of interactions is too complex for precise calculation. Instead, a situation of bounded rationality exists (*ibid.*:95, Simon 1972; see also section 1.3.1 above). Cairney (*op. cit.*:11,182,193) offers the summary that, when policymakers ‘...focus on one issue they have to ignore 99 others’. Therefore, in view of this inherent inertia, or lack of responsiveness, of policymaking activity the description of the holistic view of policy included above can be expanded in that not only is policy the net effect of what government does at any one point in time but also there is a sense in which this effect is cumulative over time. Policy therefore should accommodate the idea of path dependency⁶.

Thus policy has to be concerned with both the incremental sense of what new element of policy is being considered in the here and now but also needs to consider the current policy legacy accumulated from all previous policy actions (and from previous policy inaction, following Klein and Marmor in Moran *et al.* 2006). This is not to suggest that policymakers, or those seeking to influence policy, must possess perfect knowledge and a perfect ability to calculate and determine consequences (bounded rationality accepts that none of this is feasible) but it does mean that there will tend to be a gap between policy intention and the end result, and that any consideration of policy must not be separated from a realistic projection of potential outcomes. In the construction field, for example, such concerns were expressed by Foxell & Cooper (2015:399); indeed, the observation of a persistent gap between intent and outcome in relation to policy at the sector level is at the heart of the research problem identified in chapter 1. The emphasis placed by Cairney on effect rather than mere intention seems necessary, if the apparently in-built tendency towards a gap between policy intent and outcome is to be minimised. In particular, the inherent tendency towards such a gap implies that focus on implementation and evaluation are critical, not just a good idea.

These limitations and characteristics of policy, policymaking and the policy process can be said to be common across all policy areas, and indeed this seems to be one assumption upon which the broad field of academic inquiry, political science, has been assembled. A brief survey of the wide variety of theories, frameworks and models which have been developed for use with policy analysis is included in Appendix A.

⁶ Path dependency has been associated by with an incrementalist model of policymaking, that is a deliberate approach to making policy in its own right. Lindblom (1979) is usually credited with having promoted such an approach to policy (see Appendix A).

Some of these models represent sub-disciplines in their own right with their own typologies. They are usually used singly. However Cairney is strongly of the view that the greatest insight is available when they are used in parallel, giving rise to '*multiple perspectives*' on the same problem (*op. cit.*:285). A similar position was taken by Jenkins in Hill (1997:34). Nevertheless Weible (in Sabatier & Weible 2014:397), while agreeing that the goal of using multiple theories is '*fitting*' and the ambition to do so is '*respectable*', warns of the challenges facing even an experienced researcher in trying to master more than one model adequately: Weible states '*...since 2009 the Policy Studies Journal has rejected every submitted manuscript...*' which sought to use more than one of the theories described in Sabatier & Weible (*op. cit.*).

These observations regarding the way in which theory and models have been used in policy analysis lead the researcher to question the meaning and role of theory in relation to observation and analysis, a subject which is considered in chapter 4, and chapter 8 (and Appendix A). Nevertheless, given such an apparently well-developed resource of policy analysis models, and a history of their application in a variety of policy contexts, one might expect that generic methods of analysis are likely to be relevant also to any subset of policy such as that for construction. While this may seem to be an obvious approach, it is not one which appears to have been adopted extensively by construction policy analysts, hence the call for '*increased policy literacy*' in the industry by Foxell and Cooper (*op. cit.*:405) as is discussed in the next section (2.2.1).

2.2.1 Policy Analysis for Construction: a research gap

Chapter 1 has already introduced the design of research as one which goes beyond political science theory and encompasses the broader perspective of political economy yet characterised the research problem as one of policy analysis (section 1.3.1). This section (2.2.1) seeks to establish the extent of the research gap in terms of application of political science theory to policy for construction. The extent of application of political economy theory to the same problem is considered in the next chapter (section 3.6). For ease of description, section 2.2.1 is divided into two parts: the first examines the extent to which the political science community has applied theory to policy for construction; the second part examines the use of similar theory by the construction management community itself. The section concludes with a brief summary.

2.2.1.1 Research from a political science perspective

Regarding evidence of the degree of usage of policy analysis models, one of the most extensive is associated with 'punctuated equilibrium theory' (PET) (Baumgartner, Jones and Mortensen in Sabatier & Weible 2014)⁷. In the period 1991-2014, 303 articles based on the application of PET were published of which 256 were '*empirical works*' (*ibid.*:85,92). The same

⁷ PET and other policy analysis models referred to in this section are described in more detail in Appendix A.

source reports that, while the original model was developed within a USA context, after 2005 the majority of new PET research has been carried out in non-USA jurisdictions. One of the major sources referred to is the EU Policy Agendas Project (Sebastiaan Princen [Co-ordinator], 2016). As the name implies this database of research is concerned with the agenda setting aspect of policy – so includes PET applications as well as other approaches. The project website lists 22 policy areas ('Codes'), and 250 sub-categories, where research has been conducted, none of which relates to construction or the built environment. Therefore the EU Policy Agendas Project has not yet addressed or even recognised construction policy as a subject for research. A similar conclusion can be drawn from cases recorded by the Comparative Policy Agendas Project (Baumgartner, Green-Pedersen and Jones, 2011) which is an international resource with origins in the USA.

Extensive research has also been conducted in connection with the application of the 'advocacy coalition framework' (ACF). Jenkins-Smith *et al.* in Sabatier & Weible (2014: 210) report that, in the period 1987-2013, there were 224 '*empirical applications*' of the framework, 42% of which related to Europe. However, once again, neither construction nor the built environment are mentioned amongst the applications of the model.

Regarding a third technique, namely Multiple Streams Analysis (MSA), Zahariadis in (Sabatier & Weible 2014: 25) reported that there were 1900 peer-reviewed journal articles which either '*mentioned or applied*' MSA in the period 2000 to 2014. Zahariadis (*ibid.*:50) lists 37 of the more important studies, none of which addresses construction policy.

Based on this survey of the application of techniques of policy analysis, it is clear that certain approaches have received extensive empirical exposure across many policy areas. Applications of these techniques have tended to focus on traditional areas of interest for public policy such as environment, health and education. Certain industry sectors have received attention (for example, pharmaceuticals) but the construction sector appears so far to have been neglected in the mainstream policy process literature and in the application of the major policy analysis models.

2.2.1.2 Research from within the construction management domain

The preceding section (2.2.1.1) demonstrated that the literature concerning the application of the most established techniques of policy process analysis (such as PET, ACF and MSA) is extensive and the existence of this body of work suggests strongly that techniques of analysis are therefore available for application in any given area of public policy including, by implication, construction. Despite the evident potential relevance of the techniques in understanding any policy process, so far no evidence has yet been found, in published surveys of publications in the mainstream policy journals, of the application of the techniques to sectoral level construction policy (CIP). Nevertheless policy for construction including CIP has been researched to some extent (some of these sources have been alluded to briefly in section 1.2):

- A relatively early review of attempts at reform of construction ('A review of reviews') was compiled by Murray and Langford (2003). Their review covered the years 1944-1998 which included the period leading up to Egan (1998) and

the early months afterwards. They expressed optimism that Egan, and the movement which it fostered, might at last start to result in change.

- Adamson & Pollington (2006), writing slightly later than Murray and Langford, assembled a history of attempts at construction reform over a more limited period (1993-2003) but one where in their view progress was indeed made with implementation of the Egan report (1998). The value of this work lies in the contribution to what was intended to be an '*objective and factual*' historical review made by actors closely involved with reform. It was designed to constitute source material for researchers rather than as an analysis of the policy process as such.
- In more recent years researchers, usually from within the construction community, have begun to examine the causes of the symptoms, that is the 'recurring themes' and apparent reluctance to change highlighted by Murray and Langford (*op. cit.*). For example Fernie *et al.* (2006) made a plea for a more contextualised analysis and a more reflective approach than had previously been the case. They sought '*to deconstruct the discourse mobilized by the reform movement*' (*ibid.*: 92) as a means by which to '*contribute to a wider debate on the nature and extent of change in the UK construction sector*' (*ibid.*:93). The same paper discussed the risks of stripping context, and its '*structural characteristics*', from the development of policy (*ibid.*:99). The paper called for application of structuration theory used in other branches of social science as a key contribution to avoiding re-enactment of the '*failures of the past*'. On the other hand it does not refer explicitly to techniques from political science which have addressed such matters in other policy contexts as a means of understanding policy processes, agenda setting and policy change.
- Another example of a determination to adopt a broader perspective on construction policymaking is that of Bresnen (2007), on this occasion using partnering in construction as the focus, seeking to '*deconstruct more prescriptive*' accounts of partnering in order to derive a more realistic understanding (*ibid.*: 365). Bresnen summarised his approach as '*The theoretical positions that have been alluded to include institutional theory, the resource-based view of the firm and practice-based approaches to knowledge and learning – but extend also to more critical perspectives on social and organisational theory*' (*ibid.*:372) . He made a plea for a more pluralistic approach to be adopted in determining performance, which might for example take into account longer term impacts.
- Green (2011) traces the history of the construction improvement agenda over several decades. Green presents a more analytical view of the development of the reform agenda than, say, Murray and Langford (2003), and sought to present it in a rather wider political context. Nevertheless what is not attempted is to analyse what political scientists would call the policy process as such. Therefore the possibility of transfer of learning from policy process analysis in other sectors is, perhaps, not utilised.
- Smiley *et al.* (2013) argued that the existence of enduring and difficult-to-change symptoms amounted to *prima facie* evidence that there are deep-seated cultural and socio-economic roots and causes which need to be

considered by researchers into construction reform. They also observed that such influences have tended not to be addressed.

- The same authors also developed their critique in Smiley *et al.* (2014) using discourse in relation to partnering and Building Information Modelling (BIM) as a point of departure for an assessment of wider policy discourse. In relation to BIM, the paper questions why BIM should have been prioritised (what are the underlying values?) but, perhaps significantly for the present research, does not utilise the extensive work on agenda setting developed within political science. Smiley *et al.* (*ibid.*) acknowledged that attempts had been made in earlier research to look at causation but called for research which would combine '*Critical Theory with a socio-historical cultural lens*'. This statement suggests a very similar concept to that of examining 'structure' in the sense used by policy researchers such as Cairney (2012:111). A further resonance of the paper with the potential relevance of political science (and political economy) methods is the reference to the need for the values of those engaging in discourse to be understood in terms of how such values might influence policy direction: this is reminiscent of the ACF approach where the role of beliefs, at different degrees of intensity, are seen as fundamental to the formation and potential realignment of advocacy coalitions (see Appendix A). To summarise, Smiley *et al.* (2014) in effect steer readers towards pre-existing research techniques, of various origins, which are in fact remarkably well developed, but which have rarely if ever been linked specifically to construction policy.
- Janda and Topouzi (2015) used energy policy for buildings as their context. They proposed a distinction between '*hero stories*' and '*learning stories*' and built the case for policymakers to make more frequent use of the latter, which would open up opportunities for positive change, away from narrowly physical solutions.
- Work by Rigby *et al.* (2014) identified insights from the application of game theory to the implementation of benchmarking in UK Construction Policy. This paper in fact appears to be one of a rare breed where policy analysis tools have been applied directly to construction policy. However, game theory addresses one part of the notional policy cycle, namely policy design, rather than either initial agenda setting or implementation so its terms of reference are very limiting.
- Smith (2014) compared Building Information Modelling (BIM) strategies across a number of countries and regions. While Smith's research represents strong evidence for the role of government in stimulating local take-up of BIM technology (not least, by means of compulsion in the use of BIM when contractors are bidding for public sector work), the use of generic policy models is not within the scope of Smith's paper.
- Park *et al.* (2011) assessed Singapore government policy to '*diffuse*' prefabrication practices to the private sector. The paper starts from a criticism of a piecemeal, narrow method of public policymaking and hence calls for an '*integrated and systemic*' approach to identifying and evaluating policy options. The paper goes on to describe a systems model-based approach to policymaking which is then utilised to assess options in respect of

prefabrication. The systemic approach is consistent with the formulation of the present research problem (section 1.3.1). However, like several of the papers listed here, the most contested, political, areas of the policy cycle such as agenda-setting, are left out of consideration.

- The use of Grounded Theory was described by Fox *et al.* (1999) in seeking to ‘capture the key factors that influence construction industry development’ (‘development’ here refers to the use of CIP within developing economies). Once again, only one model was used and, while Grounded Theory is used extensively in the social sciences, the research did not seek to benefit from the highly developed techniques of political science which have been described (section 1.4).
- There are examples of work on specific areas of construction activity which include discussion of policy issues, and sometimes theory. An example is Fawcett and Topouzi, (2019) which considers the implications for building energy policy of a stronger commitment to climate change objectives. While clearly of value within their own context, such papers serve to illustrate the importance of an improved understanding of policy matters across the sector. Their emphasis tends to be on the policy topic and context rather than the underlying methods of policy analysis. Similarly Zhang *et al.* (2019) provide a detailed examination of the policy context for offsite manufacturing (OSM) in the UK, and while they include reference to relevant policies they tend to consider the problem (the wider use of OSM) without reference to the tools of policy analysis from outside construction: it can be characterised as a technocratic approach.
- If the unit of analysis is widened slightly from construction as such, other papers can be identified where policy has been considered from a more explicit theoretical base. For example, Fée (2019) writes about UK housing policy not from the perspective of construction as such but more in the context of social and well-being policy. The paper uses political discourse analysis to conclude that there is ‘...a discrepancy between the official rhetoric of well-being and the policies implemented since 2010.’
- An empirical study, based on an extensive survey of the industry, has been published by the Construction Products Association (2014). The main focus of the report was to respond to the aspirations of Construction 2025 towards economic growth and the closing of the trade gap in products, which was the fourth target of the strategy. It includes a valuable exploration of the effect of policy on domestic investment by industry actors (within a context where many UK construction product manufacturing operations are owned by multi-national corporations with a considerable degree of discretion as to where to site future investments). In doing so it draws a number of conclusions around good practice in policymaking from design through to implementation. It also calls for explicit action by Government as well as industry e.g. early consultation in which the consensus of industry can be expressed. While the paper declares no explicit theoretical basis, its content is wide ranging and in effect makes a connection between individual areas of policy, policymaking processes and industrial policy.

- Foxell & Cooper, in an editorial introducing a set of policy papers, expressed discontent on the part of industry concerning the policymaking process for construction and called for research to enable improvement including ‘*increased policy literacy*’ in the industry (2015:405).

2.2.1.3 Summary of Literature Review for the research gap in CIP

Several researchers, who have considered the history of the construction improvement agenda, have issued calls for the wider context of construction policymaking to be taken into account and the use of multiple perspectives (Fernie *et al.* 2006, Bresnen 2007, Green 2011, Smiley *et al.* 2014). In some of these cases researchers have made initial steps towards exploring the theory and value of doing so (Smiley *et al.* 2014).

No examples were found of the use, for analysis of policy for construction at the sector level (CIP), of the major policy analysis frameworks and models such as PET, MSA and ACF which have been extensively used in other policy fields. Isolated examples do exist of the application, albeit singly, of generic policy models to specific topics within construction: these include the use of game theory to explore benchmarking (Rigby *et al.* 2014) and the use of systems dynamics to examine policy for pre-fabrication (Park *et al.* 2011). While these tend to be exploratory in nature, and omit from consideration more contested areas of policy such as agenda-setting, they do nevertheless demonstrate to some extent the potential value of the application of policy models as opposed to a more descriptive, *ad hoc* approach. No example of the simultaneous use of multiple models, and hence multiple perspectives, was found (though the difficulties in doing so have been recognised in the literature). The papers by Construction Products Association (*op. cit.*), Zhang *et al.* (*op. cit.*), and Foxell and Cooper (*op. cit.*), however, illustrate the relevance of policy analysis to construction.

Summarising, while studies of the policy process affecting construction and using policy models do exist, they are very few in number and tend to focus on specific topics rather than any kind of analysis of generic construction policy processes or policy at sector level. They tend to exclude key parts of the policy cycle from consideration. The scarcity of evidence for the application of policy analysis to construction, despite extensive use in other policy areas, suggests that further research of this type is likely to generate value for stakeholders in CIP processes. The use of a broader political economy perspective in policy analysis, and any research gap arising in relation to construction policy, is considered in section 3.6.

2.2.2 Emerging questions for participants

During this exploration of the meaning of policy, a number of points have emerged where the perspectives of participants would be helpful:

- What do you understand ‘policy’ to be, and how is it made ?
- Is there a gap between policy intent and outcome ?
- What are the reasons (for any gap) ?
- What emphasis is placed on implementation, review and evaluation ?

2.3 What is Industrial Policy?

The preceding section (2.2) presented an overall view of the nature of policy and its scope. A more detailed consideration of industrial policy (IP) can now be undertaken, drawing out any distinctive and additional features of IP which can be said to overlay any understanding emerging from the generic view of policy. As in the preceding section, emerging questions which potentially could be put to stakeholders (participants) are to be identified.

The phrase industrial policy denotes an area of policy which is contested in its legitimacy and which has passed through cycles of interest among policymakers both globally and in the UK (Aiginger 2007:299; for the UK, see Rhodes 2016:10,11). Concepts of IP range from the view originating with Marshall (1920), and reflected by modern-day commentators such as the erstwhile Treasury policymaker Macpherson (2019), that intervention by Government must only be considered when there is market failure through to that of a very active, but now largely discredited, intervention seen in the UK in the 1960s and 1970s⁸. On the other hand, researchers such as Rodrik (2008), Bailey & Cowling (2006), and Chang (1994 and 2002) have pointed out that in fact IP in some form, even if not formally recognised as such (and even if not amounting to deliberate 'strategy'), always survived even during the 1980s and 1990s in ostensibly the most liberal free market economies such as the USA.

This concept of the prevalence of IP in market economies, in a *de facto* sense at least, is further supported by the likes of Hancké, Iverson and Soskice in Coen *et al.* (2010) when considering the deep influences of so-called Varieties of Capitalism (VoC) and styles of democratic decision-making on the kinds of business activity likely to flourish in any individual economy. Hence Industrial Policy, and any new decision by policymakers which might affect it, are set in an historical economic and cultural context, almost an eco-system in its own right, the characteristics of which vary between states and which in effect loads the dice towards or against any intended outcome – potentially leading, for example, to different industries thriving in different types of economy

A further dimension of Industrial Policy which is relevant here is the concept of Multi-Level Governance (MLG) which is described in Cairney (2012:154). MLG represents the idea that policy is influenced at different levels: Moran in Coen *et al.* (2010:394) describes how policy operates within the EU and impinges on business. A relevant example of MLG which affects the UK, is that not only does Scotland have its own national Construction Strategy (Construction Scotland, 2019) while at the same time falling within the scope of the UK's Construction 2025 strategy, but also that the European Union has the capacity to create policy and law affecting industry (rules for public procurement being one example). Coen (in Coen *et al.* 2010) describes the evolution of EU influence and the corresponding evolution – some would say 'maturity' – of the approach to lobbying adopted by business at the European level. Therefore to the concept described earlier that policymaking needs to be carried out in the context of a state's economic and cultural eco-system must be added, at least in the UK, two or more layers of governance representing policy-making capacity affecting industry. Each of these layers contains its own cultural and institutional baggage, values and bias in behaviours

⁸ During 2019 it could be argued that, with the re-emergence of political nationalism among some western democracies and the growing return to ideas of protectionist industrial policies in political discourse, that the more interventionist forms of industrial strategy are once more acquiring political acceptability.

influenced by its own unique institutional history. One implication is that industrial policy can be seen as the net result of decisions at multiple levels. Hence to isolate one layer from another in the early stages of research would be a mistake. Even after the UK finally departs from the EU there may be residual effects of EU policy on the UK.

Other researchers have sought to demonstrate the theoretical basis for IP, starting from a theory of the state and of the firm, and the need for government, in market economies, to engage with industry (Glykou and Pitelis 2011; Pitelis in Coen *et al.* [*op. cit.*]; and also Crouch in Coen *et al.* [*ibid.*]). Glykou and Pitelis (*op. cit.*:468) claim that the role of the state has been '*under-conceptualise(d)*'; in their view

'... it could be suggested that there is an emerging consensus in economic theory that the main institutions of capitalism should be seen as both complementary and substitute (sic).' (*ibid.*:471).

It follows from this assessment by Glykou and Pitelis that there are always political choices to be made (or to be permitted implicitly, by default) regarding allocation of resources and regarding what products and services are to be provided (housing, energy efficiency, infrastructure *etc.*) by which actor, whether by state or firm.

Similarly Bailey and Cowling (2006) make the case, in terms of economic efficiency, for IP as a means to offset what some see as the self-defeating effects of capitalism identified by Schumpeter (1943): an example is the tendency for the economic dynamism associated with smaller, entrepreneurial firms to be replaced over time by larger monopolistic corporations which, if left unaddressed, would tend to lead towards more centralised decision making in an economy (a modern day illustration of this might be the emergence of the likes of Google, Amazon, Facebook and others as targets of regulatory action to curtail their power).

Crouch in Coen *et al.* (*op. cit.*:148-169) explored the problem of the '*giant firm*' (sometimes called Multi-National Enterprise [MNE] or Multi-National Corporation [MNC]) which, in part because of its ability to work across national boundaries, becomes a powerful actor even to the extent that '*there is a non-democratic component of advanced capitalism*' (*ibid.*:150). A key observation by Crouch is that, whereas neo-classical theory of markets requires '*the separation of polity and economy*', yet, especially for such giant firms, '*...political and economic resources can be translated into each other*' (*ibid.*:151). He remarks that in the UK, in respect of certain former state monopolies, the monopolist tends to be left unchallenged but required to '*act as though there were competitors*' (*ibid.*:154). MNEs may engage in lobbying but '*... also operate in their own right on the political stage, and not through government*' and yet '*...they are not formally answerable to the public*' (*ibid.*:167,168). While, compared to some other sectors, there may be relatively few such giant firms in construction in effect a *de facto* IP emerges from the natural growth of the firm which requires attention by policymakers if political accountability to the electorate is to be achieved. Hence the analysis by Crouch adds weight to the case for a more pro-active engagement with industry, as discussed above in relation to Aiginger (2007), Glykou & Pitelis (2011), Bailey & Cowling (2006) and Rodrik (2008).

There is a level of agreement that IP at least needs to be carried out at a horizontal level (Pryce 2012, Rodrik 2008) while more specific intervention including on a sector (vertical) basis, if considered at all, should be on an exceptional basis. Other researchers go further

and argue for a more deliberate approach (Aiginger 2007, Glykou & Pitelis 2011, Bailey & Cowling 2006, Rodrik 2008) which in effect might, or even '*should*', amount to a designed strategy rather than just an accumulation of policies (Dhéret *et al.* 2014:v). For example, in Aiginger's view, 'Systemic Industrial Policy' (SIP) is required which looks beyond just reactively intervening to correct market failure – instead SIP

'has to be more forward looking and proactive, instead of correcting only existing failures and weaknesses' (ibid.:314).

At this point it is worth revisiting briefly the earlier characterisation of policy, and therefore IP itself, as that which actually happens rather than that which is '*written down, intended or legislated*' (section 2.2). In relation to policy for industry, research has been carried out on the sectoral impacts of macroeconomic policy decisions. Ganley and Salmon (1997), in a study for the Bank of England, concluded that there is a very marked difference in effect at sector level of macro-economic decisions for monetary tightening (say, in times of financial crisis): according to them construction, for example, tends to be affected more severely than other sectors (confirming a perception held by other industry commentators – see Gruneberg and Francis, 2019). Later research by Peersman and Smets (2002) presented evidence that these differences are associated with the 'durability' of the product and also with the extent of participation of Small and Medium Enterprises (SMEs) in the sector – the latter group being more dependent on external financial funding than larger businesses. In this study Peersman and Smets looked at 11 industries in 7 eurozone countries but they did not consider construction explicitly (unlike Ganley and Salmon, *op. cit.*). Nevertheless the mechanism they proposed would seem to offer the beginnings of an explanation for the evidence of differential impact on the construction sector given the relatively long-life of its products and the very high participation of SMEs (BIS, 2013:27). Therefore, with reference to the proposition that policy is what happens rather than what is intended, given the necessity for macro-economic policy as a fundamental activity of government, and the growing consensus that at least horizontal IP is legitimate, then the need to consider IP also at sector level starts also to acquire both legitimacy and even necessity – most particularly in the case of construction.

There is a separate but parallel field of research which suggests that macro-economic policy, even if successful, can have other unintended consequences which policymakers need to consider in terms of *local* social and environmental consequences: see for example Bailey, De Propriis, *et al.* (2015) and Bailey & Driffield (2007). While local aspects of implications of IP are outside the scope of the present research, the complexity of interactions between different policy spheres is an integral part of policymaking and serves to imply the need for co-ordination albeit in a context of complexity and bounded rationality. Hence, it is argued that IP (whether tacit or explicit, interventionist or *laissez-faire*) also has a local and regional dimension.

In recent years there has been renewed interest in industrial policy internationally and within the UK. Contributions have been made by both academic researchers (Bailey, De Propriis, *et al.* 2015; Bailey, Cowling, *et al.* 2015; Ambroziak 2017) and by governments (HM Government 2017; Schroeder 2016). Work by Mazzucato, on normative IP based on societal '*missions*', has been influential on both UK government and European Union (EU) thinking (see for example Kattel *et al.*, 2018). These more recent developments in deliberate design of IP, or its approximate synonym Industrial Strategy, alongside the sense of IP as being always and inevitably present, as described by Rodrik (*op. cit.*) and Chang (1994 and 2002), have

consolidated a situation where industrial policy has become an increasingly legitimate area of both inquiry and of government-industry engagement.

Rodrik (2004:20; 2008:30) and others (HM Government, 2017b:208) have expressed fears that IP itself can be inherently biased towards incumbents, and their needs, rather than being about enabling the growth of businesses in new supply chains and new markets. While the use of horizontal IP may be seen as minimising this risk, sector-based IP may be institutionally, if unintentionally, biased towards the protection of the *status quo*. Mazzucato (2017:2) calls for government to embrace the market-shaping and market-creating aspects of IP (thus avoiding focussing only on incumbents in the market), hence the more recent manifestation of IP in her missions-based approach. The latter is reflected in the UK's current industrial strategy, and can be seen as an evolution of horizontal IP in an attempt to emphasise end-goals (and intentionally mimicking the style of Apollo moonshot mission of the 1960s) rather than specific industry sector activity (Mazzucato, 2017; HM Government, 2017b:35 - the latter refers to plans to "*develop 'missions' to tackle the Grand Challenges*").

Finally, as important as the what, why, who and when of IP, is the question of *how* it is done – that is, the kind of policymaking processes which are needed to support it. The next section (2.4) addresses some of the categories of individual instruments of generic policy available to the would-be policymaker. In terms of the overall style of approach to co-ordination between government and industry (and potentially other stakeholders), more recent writers have called for a move away from seeing IP as a kind of top-down hierarchical and interventionist approach towards being one of '*strategic collaboration*' between public and private sector, a process of 'discovery' and '*learning*' (all terms used by Rodrik, 2004) or '*strategic dialogue*' (Wajzer, Munro and John, 2016:32). Such a style would be consistent with seeing the generic policymaking process as including interwoven design and implementation rather than there being a distinct gulf between the two (as argued in section 2.2).

The absence or otherwise of an explicit IP, and associated institutional framework will not prevent policy being made and implemented for any specific topic (say, for building regulations or skills). On the other hand, having an explicit or integrated IP in place for construction may help to increase the capacity of the industry to manage risk and increase the probability of meeting the expectations of stakeholders on any given policy theme; it may also offset the kind of adverse imbalance in the effect of macroeconomic policy on the sector referred to earlier (in section 2.3). The existence of an explicit CIP, in the context of a wider commitment to the concept of IP and alongside an appropriate institutional framework, may be a necessary if not sufficient precondition for effective policy for construction. The role of institutions – both formal and informal, and throughout the industry – have been recognised as critical to change processes (North 1990 is a frequently quoted source) and the subject of institutions will be returned to when discussing Political Economy in Chapter 3.

To summarise, this consideration of IP suggests that policy actions in their broad sense, and the structural⁹ aspects of economies and democracies, can have a major influence on industry

⁹ The terms 'structure' and 'structural' carry different meanings in different academic disciplines, which will be discussed in more detail in later chapters. In this thesis the Political Economy sense of the word is used unless otherwise stated – that is, referring to permanent or enduring, and influential, features of the system under consideration: those features which are relatively unlikely to change. (See Glossary for PE terms).

whether intended or otherwise. Some of the features of construction (durable product, high percentage of SMEs) may amount to additional reasons for attempting to organise policy for the sector rather than passively allowing policy for the sector to be simply a serendipitous accumulation of the impacts from macroeconomic policy and individual micro-policies (building regulations, planning rules *etc.*). Intervention in policy for industry, and therefore by implication for construction - even in Liberal Market Economies¹⁰ such as the UK - is far from being exceptional. Despite the often contested nature of IP, there does appear to be substance to the concept, certainly at a horizontal, cross-sector, level: researchers in IP tend to agree that policy action, if required at all, is appropriate first at the horizontal level. The local and regional impacts of IP should not be ignored and add to the complexity of the context of policy design. There is less agreement about legitimacy of action at a sector level (such as CIP), even if macro-economic policy can often affect specific sectors differentially in unintended ways. More recent developments in IP thinking, such as the missions-based approach, offer an alternative positioning of IP to that of sectoral vs horizontal measures. However, if the sectoral effects of macro-economic and horizontal industrial policy are overlooked, then construction, more than most other sectors, will be at risk of unintended and negative impacts (Peersman & Smets 2002; Gruneberg and Francis 2019).

The emerging themes of industrial policy are summarised and compared to UK activity in Figure 3 (in section 2.5.1). The tabulation also illustrates the extent to which construction sector strategy for the UK (CIP), such as it is, must be seen as just an element of the UK's industrial policy rather than as a self-sustaining species. CIP itself will be considered in more detail in section 2.5.

During this exploration of the meaning of Industrial Policy, a number of aspects have emerged where the perspectives of Participants would be helpful:

- To what degree is it appropriate for government to intervene in the industry ?
- Should intervention be confined to specific policies or should it include sector-level actions ?
- How important is local or regional policy ?

2.4 Instruments of Policy

Up to this point 'policy' has been spoken of in a rather conceptual sense, so it is necessary to add depth to the idea by considering the instruments, or mechanisms for change, which are available to the policymaker, or to any other actor wishing to see change. The relevance to CIP is that both policy for construction and also all the instruments associated with it, are bound to the same degree as policy in any other area to conform to similar rules and limitations concerning the instruments available to the policymaker – to the extent that such rules can be said to exist. The utility, or impact, of any one measure may vary between construction and

¹⁰ The term 'Liberal Market Economy' is used within the Varieties of Capitalism school of thought (Hall & Soskice 2001)

other policy domains, depending say on the industry sector composition, but policymakers need to be aware of any generic constraints.

Cairney (2012:26) describes 16 main categories of instrument ranging from conventional regulation, taxation, expenditure and funding through to the use of voluntary agreements and codes of practice. To this list can be added others such as behavioural economics (or ‘Nudge’ see Behavioural Insights Team 2015) and the use of industry sector councils (HM Government, 2015b). Of particular interest to the construction sector, for which the public sector represents the largest client group, is the use by Government of procurement processes as a means to influence industry behaviour such as in the implementation of Building Information Modelling (BIM) (see Cabinet Office 2011:13; Infrastructure and Projects Authority 2016:2), and in the delivery of apprenticeships (*ibid.*:2)¹¹.

Cairney (*op. cit.*:27) points out that the politics, and hence degree of difficulty, involved in pursuing any one of these measures will vary. For example the presumption against new regulation as such which might impose new costs on business, is demonstrated by the ‘One in Three Out’ (OITO) criterion – that is, any proposed new measure creating new costs for business must be balanced by the withdrawal of measures leading to savings three times the cost of the incoming measure (BIS 2016 and Javid 2016: ‘one in three out’ replaced ‘one in two out’ in 2016, though both may have fallen out of active use, as will be shown in chapter 6). On the other hand many policy instruments, such as the use of public procurement and voluntary agreements, do not require the explicit consent of the legislature and so are politically less problematic – though of course they may vary in efficacy.

For the UK in general the guidelines employed by Government in determining what policy interventions of any kind are appropriate, if they involve cost to the public purse, are set out in the Green Book (HM Treasury 2003 and its latest revision, HM Treasury 2018). The first step in appraisal is acknowledged to be the definition of the rationale for intervention, though disappointingly both editions of the Green Book deal only briefly with this step, perhaps because agenda setting is a politically loaded activity. In the words of the 2018 edition:

‘The rationale for intervention can be based on strategic objectives, improvements to existing policy, market failure or distributional objectives that the government wishes to meet.’ (ibid.:13).

The guide is explicit that ‘externalities’ are to be taken into account: externalities are defined in the 2003 Green Book as ‘non-market impacts of an intervention or activity which are not borne by those who generate them’ (HM Treasury 2003:102; a similar definition is included in HM Treasury, 2018:110 but this omits mention of the externalities of interventions themselves). The 2018 Green Book (*ibid.*:61) describes at length how, during the policy evaluation process, policymakers should deal with non-market impacts such as well-being and environmental effects.

The fact that certain policy instruments might be more attractive than others to policymakers was implied by the earlier reference in this section to the variable difficulty in progressing different types of measure. In fact the Green Book explicitly encourages policymakers to

¹¹ The extent to which the public sector does collectively amount to being the UK construction sector’s largest client, and the significance of these circumstances, needs to be tested - as will be seen in later chapters (7 and 8).

consider non-regulatory, less interventionist, options (HM Treasury 2003:17) as does the Better Regulation Framework Manual (BIS, 2015a:4; BEIS, 2018:9). Additional guidance, for 'Ethical Regulation of Business' published within Government goes further and proposes the concept of co-regulation (Hodges 2016:7) which is a more collaborative, information-sharing approach to regulation and enforcement. Hodges claims that in fact this approach is already in place in several industries (*ibid.*:7; advertising standards is one such area).

While Hodges is concerned primarily with regulation and enforcement of standards within business, some of his themes - such as collaboration between business and government - sound not unlike those discussed in the preceding section on IP (e.g. strategic collaboration in Rodrik 2004:18). They certainly appear compatible and Hodges' arguments add some depth, from a new academic legal standpoint, to the concept of what industrial policy could look like in practice. These themes of collaboration which are referred to in the Green Book, in Hodges and in Rodrik (2004), can be developed: they imply that, for any voluntary, collaborative or other non-regulatory measure to have a fair chance of being effective, it becomes incumbent on, rather than optional for, the potential participants (namely, in the present case, the construction industry) to engage in policy design when 'co-regulation' is at stake¹². It may be that Government perceives that the voluntary, and hence collaborative, style of implementation associated with co-regulation, means that the cost burden of such a policy instrument is lower than for others. Therefore it is feasible that Government sees co-regulation as being attractive not just on grounds of principle or policy theory but also because it means that the OITO test can be met more easily – though co-regulation may be more problematical during the implementation phase because of the more dispersed nature of accountability compared with regulation.

One caveat is necessary. To focus on the instruments of policy, and just one element of the policymaking process, risks falling into the trap of the traditional policy cycle heuristic. Even the use of the word 'instrument' may betray a misleading assumption of a mechanical, surgical and predictable process. There is a risk in separating out the policy design process from the implementation as discrete steps. Jann and Wegrich in Fischer, Miller and Sidney (2007) point out that issues of monitoring and evaluation have come to be seen as crucial to policy success. Sidney in Fischer *et al.* (*ibid.*) also stresses that debate in the literature about instruments has shifted towards being concerned with implementation – the how and who – rather than design alone. The Green Book 2018 revision (*op.cit.*:iv), in seeking to lay more emphasis on implementation, implicitly recognises the historic weakness. Hallsworth, Parker and Rutter (2011:35) warn against the risk of a '*fissure*' developing between policy designers and those who implement. Any debate about instruments also risks ignoring the political elephant of agenda setting (see section 2.2). A sensitivity to this aspect was therefore necessary during the data gathering process of the present research.

To summarise, while traditionally many casual observers may see policy as necessarily being identified solely with legislation and regulation, in practice the instruments of policy are diverse and sometimes subtle in nature. While the recent fashion in business and political circles may have moved away from the use of conventional policy instruments, in practice even a severe deregulatory agenda still leaves Government free to use alternative, less politically awkward,

¹² A potential problem here is whether the trend towards co-regulation, requiring collaboration, privileges better resourced stakeholders over say SMEs, in which case even well-intentioned policy may favour incumbents.

measures such as procurement processes, codes of practice and co-regulation. Such alternatives, especially those which require voluntary action by business, lend themselves to more collaborative, participatory modes of government-business interaction. This need to consult and collaborate is consistent with, and is suggestive of, the so-called new ways of understanding and implementing industrial policy itself which were discussed in the preceding section (2.3).

During this exploration of the instruments of policy, a number of aspects have emerged where the perspectives of participants would be helpful:

- What are the ways used in the sector to develop and implement policy and change ?
- Which ways work, which tend not to work, and why ?
- Is there a tendency towards the use of more collaborative ways of developing policy ?
- What is the level of engagement of stakeholders in policy development ?

2.5 CIP – context, other sectors and other countries

The preceding sections (2.1 to 2.4) went back to first principles in analysing the components of CIP and in determining a scope for its meaning. In this section (2.5) a more empirical approach is adopted in order to associate a greater depth of meaning to the term. The first perspective chosen is the historical – namely, what has happened to IP and CIP in the UK over recent decades. The second perspective is achieved by a comparison of the experience of policy for the construction sector with that of other industrial sectors within the UK. The third perspective is a comparison of CIP within the UK with parallel experience in other countries at a similar level of economic development.

2.5.1 CIP – in the context of Industrial Policy

It seems reasonable to propose that any attempt at industrial policy at sector-level will be confronted with major hurdles in implementation if there is confusion surrounding the level of commitment towards a generic IP whether at sector level or horizontally (cross-sector), and if there is widespread confusion about the nature and purpose of policy activity in general. Therefore this section seeks to link the fluctuations in fortunes for CIP with those for IP (or Industrial Strategy) more generally.

Internationally, and especially in the UK, the tendency for government to intervene in industry reached a high point in the 1960s and 1970s, followed by an extended period of reversal of such policies, including deregulation and, from the mid-1980s, extensive privatisation of state assets (Crouch in Coen *et al.* 2010:165, Green 2011:40, Dhéret *et al.* 2014:13). While Rodrik (2008) makes the point that Industrial Policy (IP) was never really completely absent during these and subsequent decades, IP in the sense of explicit strategies began to make a reappearance in the UK in the aftermath of the global economic crisis of 2008-10 and the

urgent need for economic recovery and growth (Heseltine 2012, Pryce 2012, Dhéret *et al.* 2014:15). This re-emergence of IP led to the publication of strategies for 11 industry sectors, one of which was Construction (HM Government, 2015b). The launch of the joint Government-industry strategy for construction in 2013 coincided with the launch of a new 'Construction Leadership Council' modelled on the Automotive Council which had been formed in 2009 under the Labour administration (HM Government 2013; BIS 2015b; Wajzer *et al.* 2016). Therefore the historic cycles of interest in a specific Construction Industrial Policy ('CIP') and construction reform described earlier (1.2) have occurred against a backdrop of varying levels of any wider commitment to an interest in Industrial Policy as a whole. The role of Conservative-led governments of 2010 to 2019 in sponsoring industrial strategy show that the cycles of interest in IP cannot be correlated simply to political swings between left and right¹³, though that axis of change does have a bearing, with the left usually being more comfortable with owning the idea of IP than the right. Instead, the fluctuations in the fortunes of Industrial Policy may best be seen as a classic case of the garbage can model of policymaking (Cohen *et al.* 1972; see also Appendix A) whereby the idea of IP is always waiting in the garbage can as part of the soup of available solutions and problems, but needs both a present problem (say, a national economic crisis) and an incoming policy entrepreneur prepared to pick it up and champion it (Mandelson in 2009, or Heseltine in 2012).

This apparent resurgence of interest in IP by Government, associated at different times with all three major political parties, in recent years has taken place alongside, and in spite of, a progressively intensifying deregulation agenda (BIS, 2016). The rationale may vary. For the Conservative government elected in May 2015 a key driver of its interest in IP was that of improving national productivity which inevitably required improvements to productivity at a sector level, as demonstrated by the launch of a 'Productivity Plan' (HM Treasury, 2015).

As indicated earlier (section 2.3), the argument for, and the concept of, IP (and 'Industrial Strategy') are both contested. Yet, after a period of the most severe antipathy towards IP during the height of neo-liberal economics, there has been a growing recognition of a place for an updated form of IP. The intention to develop a '*proper industrial strategy*', including continuing attention to productivity and a renewed attention to innovation, was made explicit in the campaign speech by the soon-to-be Prime Minister Theresa May on 11 July 2016 (see May 2016) and was further signalled by the subsequent appointment of a Secretary of State for 'Business, Energy and *Industrial Strategy*'¹⁴ (BEIS, 2016) (this writer's italics). A revised industrial strategy was launched in 2017 (HM Government, 2017b). The Johnson administration (July-December 2019) so far seems not to be fundamentally redesigning the May era approach to IP.

The current UK arrangements for IP have been summarised by Rhodes (2019), including the setting up by the May government of an overarching Industrial Strategy Council (ISC) in 2018. The creation of the ISC was an attempt to enable industrial strategy to '*endure*' (HM Government, 2017b). The ISC is said to be independent of Government, but is non-statutory

¹³ The Automotive Council was formed in 2009, under a Labour government. The Liberal Democrats were represented in the 2010-2015 coalition, with Vince Cable as Secretary of State at BIS.

¹⁴ The new department (BEIS) was formed by amalgamation of the former department of Business, Innovation & Skills (BIS) with that for Energy and Climate Change (DECC). BEIS however no longer has responsibility for either skills (transferred to Department for Education) or international trade (transferred to Department for International Trade). See BBC News (2016) and Cabinet Office (2016).

(HM Government, 2018c). Its terms of reference are limited to advising Government on implementation of its industrial strategy and ‘evaluat[ing] progress’ rather than forming a source of challenge to the design of the strategy: such terms may enable it to survive politically rather than to be very impactful.

Within the current arrangements for industrial strategy, the CLC continues in existence and appears to remain aligned with Government’s evolving industrial strategy. One of the most significant developments has been the launching of ‘sector deals’ for several sectors, one of the first of which has been that for construction, with a focus around innovation, and research and development, oriented around the grand challenges or missions set out in the 2017 white paper (HM Government, 2018, HM Government, 2017b). (The mission-based style of IP was described in section 2.3.) A summary of present arrangements with an indication of compatibility of the generic features of IP identified in section 2.3 is shown in Figure 3 and draws on both sections 2.3 and 2.5.1.

Figure 3: Themes of Industrial Policy, and the UK

Themes of Industrial Policy	Policy measure	Evidence	Comment
Macro-economic	Implied or tacit	Differential impact on sectors	Product durability; SME dominance
Horizontal (cross-sector)	Industrial Strategy	2017 Industrial Strategy	Covers UK industry
Missions-based	Industrial Strategy	2017 Industrial Strategy	after Mazzucato
Vertical (sector-based)	Sector deals	Construction Sector Deal 2017	Other sector deals in place
Local or regional	Local Industrial Strategies	Local strategies published	In progress
National (devolved authorities)	Scottish strategies	Scotland's Construction Strategy	Overlaps with Construction 2025 ?
National (UK)	UK Industrial Strategy	Construction 2025	Referred to in Sector Deal
Strategic dialogue	Industry councils	Sector Councils including CLC	CLC started 2013
Policy continuity	Over-arching council	Industrial Strategy Council	Limited terms of reference ?

The linkage between CIP and IP has become more evident in the last decade, as illustrated in Figure 3. On the other hand the evidence of attempts to reform construction in the years since 1944, which has been discussed in sections 1.2 and 2.2.1.2, suggests a relatively continuous flow of reform. Such attempts have been made under Governments of all political colours – Latham (1994), for example was produced during a conservative government. Therefore it may also be argued that CIP, and the construction improvement agenda typified by Egan (*op. cit.*) has also had a life of its own in the UK independent of explicit and horizontal industrial policy. Yet, as indicated in section 2.3 the absence of an explicit IP can be misleading and some form of it tends always to be present. Therefore the persistence of attempts to reform construction, against fluctuating political interest in IP, suggest but do not prove that there may be forces for change which are independent of broad industrial policy. It seems reasonable to argue that the chances of successful design and implementation of CIP can only be improved, however, if it can be positioned within a context of a more widely shared

recognition of the role of IP itself rather than in one where government and industry in general are at best ambivalent or confused about the point of industrial policy.

2.5.2 CIP – Other sectors, other approaches

From 1944/45 onwards, attempts at industrial policy for the UK showed themselves in different ways – for a review concentrating on manufacturing sectors see Broadberry & Leunig (2013). They found that, over the long term, there was limited evidence of success of ‘*sector-specific policies*’ (*ibid.*:46) though there was more evidence of a favourable impact of certain non-sector-specific microeconomic and macroeconomic policies (e.g. R&D, Foreign Direct Investment and ‘openness to competition’; some credit for the latter was accorded to EU membership). A criticism of this approach to IP, exemplified by Broadberry and Leunig, might lie in the fact that attention was focussed too heavily on manufacturing (which represents a declining proportion of the GDP of advanced economies – *ibid.*:46) as being at the core of IP rather than paying attention to nascent commercial activities (Rodrik, 2008). Hence the paper may have been insufficiently forward-looking: indeed such a narrow perspective may also have been associated with earlier IP in general and may illustrate the proposition that any IP has a tendency to favour incumbents rather than disruptors (see section 2.3).

Despite the history of suspicion towards IP, especially on the part of right of centre politicians, the financial crisis of 2008 onwards led to renewed interest in both horizontal and vertical IP (HM Treasury and BIS, 2011) (see sections 2.3 and 2.5.1). In terms of design for individual sector policies (or strategies), and the associated terms of collaboration, Heseltine (2012) recommended that the existing Automotive Council should be used as the model for other sectors. The Government appeared to accept the recommendation (BIS 2012, HM Treasury 2013, BIS 2015c): the CLC was established in 2013.

According to research by the Institute for Government, Automotive still retains its position, in the minds of policymakers, as the benchmark and even the ‘Gold Standard’ sector strategy and industry council (Wajzer *et al.*, 2016). Automotive, the sector council for which was established in 2009 under the Gordon Brown administration is contrasted with three other sectors, one of which is construction. The same research, based on interviews across Government and industry, portrayed the purpose of the sector councils and industry strategies as being about fostering ‘*strategic dialogue*’ between policymakers and business (*ibid.*:2,11) and cited Rodrik (2008) in support of this concept. Issues of common concern across sectors were highlighted by Wajzer *et al.*, leaving the reader to infer that - once the process of strategic dialogue at sector level has acquired legitimacy – the concept of over-arching industrial policy almost inevitably starts to assume form.

The same source includes a comparative tabulation of the features of 12 industry councils (Wajzer *et al.* 2016: 24). The comparison suggests little real difference in the architecture of the CLC compared with that of the gold standard Automotive Council (AC) at the time of CLC formation. The AC retains a large membership of 30, one of whom is a Union representative (at October 2019). Wajzer *et al.* (*ibid.*) advise against such a large membership. The CLC in 2015 reduced its numbers from 30 to 12 – a change said by Wajzer *et al.* to be ‘*After a period*

of difficulty in gaining traction on a set of strategic issues...'. On the other hand, Wajzer et al. report that their survey respondents tended to be of the view that '18-24 months' is required in order to build up the necessary level of trust between participants, so such a major change in membership at an early stage in the life of the CLC is perhaps surprising. In one respect however the change in 2015 did represent a convergence with AC practice, namely that rather than having a preponderance of its 'industrial' membership coming from trade associations the industrial membership of the reformed CLC is comprised solely of representatives coming directly from business, though associations and other groupings are nevertheless represented on the workstreams orchestrated by the CLC. Trades Unions are not represented on the CLC, though they did have one representative on its immediate predecessor, the Construction Industrial Strategy Advisory Council (HM Government, 2013:72). SMEs have, from 2019, in effect one representative on the CLC.

2.5.3 CIP – Other countries

Before entering into any assessment of CIP for any specific country or region, the earlier remarks (section 2.3) regarding Varieties of Capitalism (VoC), and other aspects of socio-economic culture (described as '*structure*' by Ive 1990) need to be revisited. It has been suggested that these differences between countries are likely to create conditions suitable or otherwise for correspondingly different types of industrial activity. For example Ive (1990:46), in his review of methods of measurement to be used in comparing business strategy between countries, contrasted the Japanese economy with that of the British (*sic*) economy: the former is said to exhibit the '*dominance of industrial capital, its interests and modes of calculation*' whereas Britain's economy is one with an '*exceptionally dominant role of financial capital, interests and modes of economic calculation*'. Ive was writing before the VoC concept had become established, and the robustness of VoC theory itself has since been challenged (Hancké in Coen *et al.*, 2010; Thelen, 2012), but the principle that there are different types of capitalist economy and that these can influence the competitive advantage of different sectors and businesses does seem to be widely accepted (e.g. Boyer, 2005). The VoC classification also brings into the analysis the political and constitutional settlement of the country in question: the processes of decision making and expectations as to how these are conducted including whether elections are held on a first-past-the-post basis or through a form of proportional representation; and the extent to which political decisions are reached through consensus and coalitions or simple majority, together with the design of welfare state. Hence, for example, the UK is said to be a country with '*switchable assets*', related to its first-past-the-post electoral system, low barriers to shedding labour, and low commitment to '*deep co-specific skills*' while a higher priority is said to be given to '*mobile skills*' facilitating movement between rather than within sectors (Iversen and Solskice in Coen, Grant and Wilson, 2010:237; see also Hancké in the same volume who describes how the VoC typology has evolved).

The analysis of cause and effect may vary between commentators but there does seem to be a consensus that the way in which any one country deals with the relationship between government and industry (and hence how it approaches policy for industry) inevitably has to be considered within the local context and culture which is bound up with embedded political and economic decision-making processes and practices. By extension, such deep roots of

policy towards business may represent major resistance against, or support for, any one proposed change. In effect these roots and many of their consequences are structural (in the sense of being both embedded and connected) without necessarily being permanent.

Given such a variety of ways in which economies and societies are organised, and the implications for any optimum design of IP, it follows that CIP at a national level needs to be designed while taking into account specific local (national) circumstances. This would seem to represent a challenge to any notion that normative, generic or transferable CIP design is either desirable or viable. Nevertheless, this necessity for a localised or contingent approach does not preclude the possibility that there might be certain common themes or principles to be uncovered during the course of comparison of the approach to CIP between different countries, so the validity of the proposed comparative approach has not been undermined. For example, there may be one or more universal features of construction activity which are present and similarly influential in different countries (two such candidate features have been mentioned in section 2.3: a more durable product and a high SME participation rate - Peersman & Smets 2002).

This variegated view of the impacts of different political-economic forms, whatever the classification used to distinguish them, and the different impacts of styles of economic management, has received support from construction industry specialists such as Carassus (2004). While Carassus does not refer to the VoC school of thought directly he does use a taxonomy of 5 '*institutional contexts*' for construction first proposed by Boyer (2005) who contrasted the VoC school of thought with that of Regulation Theory (TR)¹⁵. Boyer sought to suggest that VoC, at least in its early conception, was an attempt to boost the case for a Liberal Market Economy (LME) and for a business-based approach to managing the economy, whereas TR stresses the role of macro-economic structure. An alternative comparison of national configurations (that is, political and economic) was summarised by Winch (2000), and again his analysis was based on an awareness of the consequences of differences in structure and institutions for the actors involved. For the current research, the exact differences between these three schools of thought, despite Boyer's attempt to establish TR in opposition to VoC, are less important than the similarities. All three approaches – TR, the updated forms of VoC, and Winch's typology, propose several different categories of market economy, and the actual groups of countries are strikingly similar even if the nomenclature differs. All three point towards the role of structure, institutions, actors, power and systemic effects when considering policy – the significance of this convergence of orientation will be explored later in the next chapter (3) where it will be shown that they amount to the fundamental concepts of PE and, hence PEA.

Both Carassus and Winch sought to build on their respective frameworks for understanding national structural differences in order to use similar thinking at the level of construction sector specifically. The work led by Carassus (*op. cit.*) represents a useful starting point when comparing the construction industries of nine developed countries, namely Australia, Canada, Denmark, France, Germany, Lithuania, Portugal, Sweden and the United Kingdom. While the research includes a tabulation of domains of influence of different institutional actors on construction, the primary purpose of the research was to test the validity of Carassus' new 'meso-economic' or 'sector system' approach to appraising and valuing the sector in its widest

¹⁵ Alternatively known as 'Théorie de la Régulation', reflecting its French origin - and perhaps therefore offering a perspective on CIP from within a Mid-spectrum Market Economy (MME, in VoC typology).

sense (which, in seeking more comprehensive ways of valuing the impact of construction, shares some themes with Pearce 2003). Therefore Carassus is helpful in assisting the understanding of many structural, and some historical, aspects of CIP but does not deal in any great detail with the nature of construction policy, or strategy, as such. The same research by Carassus refers to the work by Winch (*op. cit.*): Winch, in his summarising editorial paper, compared '*construction business systems*' across 5 of the larger countries in the EU, namely: Netherlands, Germany, UK, France and Italy. Winch (and the supporting set of articles in the same issue of Building Research and Information) examined the structural background of the five countries in more detail than Carassus, including for example a differentiation based on the legal and contractual context of each country in so far as they affect construction. The work by Winch is, therefore, again useful in providing insight into the effect of structure, and path dependency on the construction sector whenever change is being considered but, like Carassus, does not deal explicitly with a comparison of Construction Industrial Policy or Strategy between countries. What is clear, however, is that some national political economies will be more conducive to the idea of a central, national Industrial Policy, and by extension, to a Construction Industrial Policy, than others. In particular, these various analyses suggest that the UK, as a Liberal Market Economy (using the VoC classification), is less likely to provide fertile ground for ideas of centralised IP than other countries such as France or Germany.

During this exploration (in sections 2.5.1-2.5.3) of Construction Industrial Policy, a number of aspects have emerged where the perspectives of participants would be helpful:

- What is the level of the participant's awareness of IP and CIP ? (e.g. the CLC, Construction 2025 and the Sector Deals)
- Is it helpful to have an overarching strategy for construction? Does it work ?
- How does the construction sector approach to policy compare with other industries ?
- Does the participant feel that they or their organisation can influence policy ?
- What are the relatively fixed (structural) features of construction activity and what effects do they have on industry practice ?
- What are the structural features of the UK political economy which have consequences for the construction industry ?

2.6 Summary of questions for Participants prompted by Chapter 2

At several points during Chapter 2, and as a result of the analysis of CIP developed so far, attention has been drawn to certain aspects which will benefit from the insight of stakeholders and interview participants. The full list is presented here in the sequence in which they arose:

- What is the scope of the industry ? What should be included and what left out ?
- What are your reasons behind defining the scope in this way?
- What are the consequences (of the selection of scope) for policy ?
- What is the participant's experience of policy and CIP – what do they mean ?

- What do you understand 'Policy' to be, and how is it made ?
- Is there a gap between policy intent and outcome ?
- What are the reasons (for any gap) ?
- What emphasis is placed on implementation, review and evaluation ?
- To what degree is it appropriate for government to intervene in the industry ?
- Should intervention be confined to specific policies or should it include sector-level actions ?
- How important is local or regional policy ?
- What are the ways used in the sector to develop and implement policy and change ?
- Which ways work, which tend not to work, and why ?
- Is there a tendency towards the use of more collaborative ways of developing policy ?
- What is the level of engagement of stakeholders in policy development ?
- What is the level of the participant's awareness of IP and CIP ? (e.g. the CLC, Construction 2025 and the Sector Deals)
- Is it helpful to have an overarching strategy for construction? Does it work ?
- How does the construction sector approach to policy compare with other industries ?
- Does the participant feel that they or their organisation can influence policy ?
- What are the relatively fixed (structural) features of construction activity and what effects do they have on industry practice ?
- What are the structural features of the UK political economy which have consequences for the construction industry ?

It will be seen later (in chapters 4 and 5) that these questions have influenced those which have been included within the semi-structured questionnaire, though they represent points around which insight is sought rather than verbatim questions to be asked. All of the questions can be seen as supportive of a political economy perspective on a specific industry sector, which is the subject of the next chapter.

Summary of Chapter 2

What is meant by 'Construction Industrial Policy' ?

Having explored the various components contributing to a possible meaning for 'Construction Industrial Policy' it is now appropriate to summarise and suggest an overall meaning for the purposes of this research. The challenge offered by Groak (*op. cit.*) to the conventional view of construction as a single industry analogous to a manufacturing sector, includes many useful insights of interest to policymakers, especially in terms of innovation and for larger scale, non-speculative, projects. Nevertheless, while taking note of the limitations, and the risk of loss of some aspects of precision, it is proposed that for a generic study of policy, the conventional unitary sector characterisation of the industry is the most appropriate starting point, including the activities encompassed by the wider view of construction identified by Pearce (2003).

The meanings of policy were explored and again it was concluded that a broad perspective was necessary. This wide view takes into account both formal and informal policy making, including the use of many policy instruments among which formal legislation is only one option. The acknowledgement that policy '*is what governments do and neglect to do*' (Klein and Marmor in Moran *et al.* 2006), and Cairney's summary that at any one time governments can only attend to one out of a hundred policy priorities (2012:11,182,193), together represent useful insight into the policymaking process with consequences for CIP. A concept of importance is that policy – especially at street level - emerges from a cumulative effect over time, and its actual end result is not always as designed by the latest policy initiative. Another insight is offered by acknowledging the influence of implementation and the role of construction practitioners and others in interpreting and adapting policy. These various insights were summarised as '*policy is what happens rather than what is written, intended or legislated*'. These observations collectively are important as they imply that any fresh policy analysis, or prescription, needs to avoid taking an unduly narrow position in its terms of reference or scope. On the other hand the broader the view, the greater the risk that analysis is faced with insurmountable complexity. Any analytical approach needs to be able to take the broad, systemic view despite inevitable complexity in the subject of research (in each of the two elements of 'construction' and 'policy'). To the extent that this task is problematical, so is the apparently flawed concept of CIP itself and probably for similar reasons.

A review of the literature concerning the extent to which the tools of policy analysis have been applied to policy for construction was reported. There were two conclusions. First, despite existence of a range of policy models, and their use in a wide range of policy contexts, their application by the political science community to construction and the built environment has been neglected. Secondly, the use of such tools by the construction management research community for analysis of policy for construction has been very limited. No examples have been found of their application at a meta-policy or sector level, which might have also provided a foundation for future work.

Having come to a view about policy, and the evident relevance of policy processes in other sectors, the next task was to attempt a description of the subset IP within which CIP is just

one element. Evidence was presented to show that in a real sense, for any single national or regional context, Industrial Policy constitutes a legacy from historical factors which include cultural values, and political and economic institutions (whether described in terms of VoC, TR or Winch's 'construction business systems'). One specific point emerged which is that the UK, as a Liberal Market Economy, may not be as structurally compatible with the idea of centralised industrial policy, and therefore CIP, as some other countries such as France or Germany. The network of institutions and actors, including but not limited to the electoral system in any one country, will tend to be self-reinforcing and preserve cultural preferences and values relevant for how decisions are made, and hence influence the kinds of skills and industries which may be successful. These influences can be seen as a kind of 'deep policy' (the writer's term) with which any single incoming policy initiative will need to contend. Hence there may be a temptation for policymakers to focus on what might be only the superficial or ephemeral aspects of industrial (or construction) policy rather than to consider deeper, less tangible, symptoms and causes.

Having explored potential meanings for Industry Policy two further areas were examined which will be helpful in giving meaning to the term Construction Industrial Policy. The first of these required an examination of the instruments of policy. The *caveat* was introduced that 'instrument' implies a level of surgical precision which is unrealistic and that implementation issues should not be divorced from policy design. The deregulation agenda of the past decade may have led policymakers to take more of an interest in instruments which require less scrutiny or which are less onerous in terms of passing the OITO test. The recognition given by Government to the work of Hodges (2016) who described and recommended a move towards 'co-regulation' is a continuation of this trend away from direct regulation and shares some of the ethos of business-government strategic collaboration proposed by researchers such as Rodrik (2008) in relation to industrial policy. This apparent evolution of styles of policy in general, and the policy processes which are needed to develop them, is clearly of great interest within the scope of the present research.

The second additional area of IP explored was the question of whether a sector-based approach such as CIP is legitimate or whether industry policies should be restricted to 'horizontal' or cross-sector policies (such as FDI, skills and SME policy). Pryce (2012) and Rodrik (2008) stress the primacy of such horizontal policy before anything more related to individual sectors or activities should be considered, whereas Aiginger (2007) was clear that pro-active sector based ('vertical') policy is important. The view that vertical IP is to be treated with caution by UK policymakers has been reinforced by historical research (for Government) into the history of IP for manufacturing by Broadberry & Leunig (2013). A challenge to this perspective was offered by Bailey & Driffield (2007) who stressed the use of regional policy and its tendency to be related to vertical IP. Therefore it seems that the balance between horizontal and vertical IP will continue be a matter for debate for policymakers. Away from the horizontal/vertical IP debate, Mazzucato (2017) has been influential in pressing the case for missions-based industrial policy focussing on innovation. However evidence was cited (Ganley & Salmon 1997, Peersman & Smets 2002) to the effect that macro-economic policy can powerfully affect the sector in question, especially the construction sector, and so at the minimum some kind of institutional feedback loop may be needed. Such an institution, whether formal or informal, seems tantamount to Rodrik-style strategic collaboration in IP, but with a sector-level dimension.

However, what is important for the present research, and for CIP itself, is that some of the recurring themes of CIP such as skills development, SME growth and finance are also recurring themes within horizontal IP (see, for example, HM Treasury & BIS 2011) and therefore it is unlikely that they can be resolved for construction in the absence of an effective over-arching industry policy. Pressing this inference further, if the right kind of horizontal IP is not in place (say, for skills) then attempts to design effective sector policies, including CIP, are likely to result in failure.

This chapter is not an attempt to provide a definitive description of CIP, which may have very different meanings for different actors, and these competing meanings may influence the extent to which policy for construction has any ultimate impact. As a consequence, questions arose throughout the chapter where the views of participants would be helpful in testing the inferences around CIP which have so far been drawn from considerations of policy and industrial policy. (These questions are listed in full in section 2.6.). Most importantly, however, the consideration of the meaning of CIP, and of its dependence on concepts of both industrial policy and political economy, imply that analysis of policy for construction would benefit from being seen as a problem of political economy rather than just one of political science. The next chapter (4) therefore assesses the relevance of political economy to the research problem in more detail.

3 A potential framework: ‘Political Economy Analysis’

Chapter highlights:

What is ‘Political Economy’ ? – Political Economy Theory – Political Economy Analysis – Relevance to Construction – re-defining the research gap – the use of PEA to understand CIP, and vice versa - A potential Political Economy Analysis method and framework

Introduction

In developing a meaning for Construction Industrial Policy from first principles, a number of questions emerged where a greater depth of understanding might be possible if participants active in the sector might be able contribute (summarised in section 2.6): all of those questions are supportive of a political economy approach. Political economy is both a descriptive term (capturing the concept that, say for one country, politics and economics act together in certain ways) and it is also an academic domain. This chapter explores the theoretical foundations of the field of study and how they have evolved in recent decades into an applied form known as Political Economy Analysis.

The potential value of using a political economy (PE) perspective and tools to analyse past and future Construction Industrial Policy (CIP) in the UK is discussed. The historical and prevailing interpretations of the meaning of ‘Political Economy’ are summarised and examples are presented of the use of PE thinking to analyse a wide variety of policy problems. The case is made that a PE perspective, as a collection of methodologies, will be valuable in evolving new insights into Industrial Policy (IP).

While PE has been used multiple times to assess IP at a generic level, and at the level of a number of industry sectors, very few examples have been found of its use with policy for construction, and none at all for use with sectoral level policy for construction (CIP). Furthermore, where PE has, on rare occasions, been said to have been applied to aspects of construction, the methodology has not been made explicit. The case is made that PE is appropriate as a means of analysis of CIP and that its use should be tested, in an explicit way. Based on PEA literature, a potential method and framework for application of PEA to CIP is derived.

3.1 Development of the meaning of the term Political Economy

From a very broad original meaning, or usage, PE has evolved over several centuries and there are several different interpretations (Caporaso and Levine, 1992; Weingast and

Wittman, 2008; Clark, 2016). The origins appear to be in France in the 17th century: Groenewegen (2008) refers to a work by de Montchrétien in 1615 as a starting point. An early sense of the phrase was that a consideration of politics at the level of the state needed to be expanded to include what would now be called economics, hence Political Economy was initially the dominant term. Writings on the subject tend to refer to J. S. Mill, Adam Smith, Friedrich List, and Marx. Groenewegen (*ibid.*) claims that the concept was overtaken by 'Economics' at the end of the 19th century until a revival, with a range of meanings, in the later decades of the 20th century. For many decades, prior to the time of economics being in the ascendancy, it was seen as accepted practice that, when considering matters of national policy direction and governance, politics and economics needed to be considered simultaneously as an integrated whole: in the words of Chang (2014:84) political economy was the earlier name for the discipline of economics. Caparaso and Levine (*op. cit.*) suggest that subsequently economics had tended to predominate which had tended to lead to a disregard for the influence of political (power) considerations in discourse.

There are several different modern versions of PE, and this diversity is explored by Caparaso and Levine (*op. cit.*). The differences can be seen as reflecting the degree of influence, or dominance, of one or other part of an economics/political-science/sociology continuum. A broadly similar typology is offered by Edelman (2009:4-7) who, writing for users of 'new political economy approaches' in development economics (Development), supports an 'inter- and multi-disciplinary' approach which also takes account of 'social, cultural and religious factors impacting on the policy process' (*ibid.*:6 referring to Landell-Mills *et al.* 2007). This extension of PE is consistent with the sense portrayed in Weingast and Wittman (*op. cit.*) of an academic domain in its own right but one which is inter-disciplinary in nature. Clark (*op. cit.*) offers an alternative typology of modern PE which consists of four perspectives: conservative, classical liberal, modern liberal, and the radical.

In the Development arena, PE approaches have in the 21st century received a great deal of attention to the extent that they have been developed into 'tools' and 'frameworks' for use in the field by non-specialists concerned with reform, change and policy, as will be seen below. However, while the present research makes use of some of the existing work in Development, the use of PE for understanding policy change and reform is certainly not confined to developing economies. For example an inductive study into its application has been published by OECD covering 20 case studies in 10 developed economies (Tompson & Price 2009).

For any research into Industrial Policy (IP), there is an immediate affinity between the concerns of PE and IP as they both relate to the impact of political processes on wealth generation, and the interaction between politics and the market. This has been signalled by the writings of Friedrich List (1841), Grant (*op. cit.*) and more recently by those of Ha-Joon Chang, whose influential PhD thesis was entitled 'The Political Economy of Industrial Policy' (1994). List and Chang, and others such as Rodrik (2008) tend to be referred to by those writing on the subject of industrial Policy in the current century such as Warwick, and Aiginger: see for example Bailey *et al.*, (2015). Glykou and Pitelis suggest that the modern concept of IP rests on PE 'foundations' (2011:461) including theories of the State and of the Firm. Therefore, while there is no universally accepted definition of PE, the affinity between IP and PE suggests that the latter could be used to help the understanding of Construction Industrial Policy.

3.2 Political Economy Theory

3.2.1 Searching for the core theory

Several of the core concerns of PE have been referred to earlier: structure, institutions (formal and informal), actors and their motivations, questions of power and national economic systems, and the inter-disciplinary nature of the method of inquiry. However, merely listing these topics does not portray the way in which they form part of a whole or the reasons for selection. In a sense the near-universal applicability of PE to many policy areas is both a strength and a weakness. The method has been used in a wide range of circumstances from the macro-economic, almost global, through to the micro-economic, local and highly specific. Though many of these papers explicitly claim a link to the PE *oeuvre*, they tend not to explain the theoretical concepts which are apparently being used. This may simply be due to the fact that any attempt to capture an entire discipline (and indeed, a set of disciplines with multiple interpretations¹⁶) accurately would tend to crowd out the true purpose of any individual research paper: it would be akin to describing what ‘chemistry’ is about at the beginning of each paper before seeking to utilise its theory in research. On the other hand, this tendency to skate over theory before applying it obscures the meaning for any reader and carries the risk of confusing theory with the contextual description of whatever policy area is in question. An additional complication arises from the unsettled, and contested, nature of much of what PE comprises. Hence, for example, it seems that to avoid such awkward exploration of theory Tompson & Price (*op. cit.*), in introducing their major comparative study using a PE perspective, made no attempt to offer a theoretical description and deliberately set out to use an inductive method of research.

For researchers and practitioners in Development political economy, on the other hand, a more applied approach has been adopted. In this case the danger is that, while making the principles of application explicit (see for example Harris and Booth, 2013) – and while practitioners would value the ‘off the shelf’ nature of many of the available analytical tools - the driving theory may be overlooked and over-simplified. Descriptions of the theory in depth, to the extent that they have been attempted, tend to have been written by economists – and may tend to favour an attempt at a more mathematical treatment: see for example Drazen (2008 and 2000). However research into policy using an ostensible PE perspective is often much more qualitative (Collinson (Ed.), 2003) than Drazen might have favoured: a reason for this might be that many of the distinctive features of the PE approach (such as power, motivation and institutions) are inherently qualitative, subjective and influenced by values rather than being precisely measurable or compatible with an economist’s mathematical model.

One paper which applies PE thinking to a specific policy problem, yet does begin with a useful theoretical treatment of PE, and which is written from an economist’s perspective is Pearce (2005). Before continuing with an assessment of PEA models and frameworks largely based

¹⁶ Political Economy is arguably more of a ‘domain’ than a discrete discipline as such, as it starts from a position of attempting to explain certain phenomena and utilises multiple individual disciplines in order to do so. For the difference between domain and discipline see Schweber (2015).

on those used in Development, it is worthwhile examining the theory deployed by Pearce, as it expresses in concise mathematical terms what is the essence of PE, and sets up the underlying almost universal PE question, namely, why policy in fact should differ from apparently optimum design or intention (which itself expresses in alternative form the research problem identified at the beginning of this thesis, in chapter 1).

Any attempt at theorising PE, as a social science, will inevitably reflect any unconscious bias of the theory-maker and this may be reflected in the range of concerns taken into account by any individual researcher. Hence a caveat when taking Pearce as a leading example is that in his approach there is a perhaps a tendency to focus on the theory surrounding *the choice of*, or decision about, a policy measure and how this may be sub-optimal in terms of economic efficiency: his treatment does not necessarily require the broader perspective on policy referred to earlier and which has been selected for the present research (namely, policy is *'what happens rather than what is written, intended or legislated'*). This concentration on the policy 'decision', and just one stage of the notional policy cycle, is made overt when Pearce (2005:7) quotes Drazen (2000:5):

'If economics is the study of the optimal use of scarce resources, political economy begins with the political nature of decision-making and is concerned with how politics will affect economic choices in a society'

Yet political pressure arising from structure, institutions, actors and motivations *etc.* applies not just to the decision-making phase but throughout the policy life-cycle¹⁷ even if other policy stages cannot be so readily imported into a numerical model. In practice, Pearce himself implicitly recognised this in the same paper in his detailed examination of context in his case study (the subject of which was the Political Economy of the UK's Climate Change Levy). Similarly, most other PE case studies also reflect this willingness to examine context and process over a longer period (Tompson & Price 2009, Collinson [Ed.] 2003). Nevertheless, the statement of theory by Pearce offers an insightful, if not an essential, starting point for a consideration of the fundamentals of a PE perspective.

Pearce (*op. cit.*:8) introduced the social welfare function:

$$\Delta SW = \sum_{i,t} \Delta W_{i,t} \dots [1]$$

'where Δ signifies 'change in', W is wellbeing, SW is social wellbeing or welfare, and ΔW can be positive for some individuals and negative for others, i is the i th individual and t is time (discounting is ignored, for convenience). For a policy to pass a [cost benefit analysis] test $\Delta W > 0$.' [Equation and text quoted directly from Pearce]

Pearce explained that few policy decisions in practice can simply adopt the objective of maximising welfare alone and therefore decisions are moderated by political considerations, to a greater or lesser extent. In his words:

¹⁷ The policy cycle is not to be seen as a literal description of the policymaking process – see section 2.2.

'Modern political economy accepts that actual decisions are not made on the basis of a textbook social welfare function'.

Pearce summarised PE thinking surrounding policymaking mathematically, restating equation [1] as:

$$\Delta PW = \alpha \sum_{i,t} \Delta W_{i,t} + (1 - \alpha) \sum_{n,t} \Delta W_{n,t} \dots [2]$$

Where PW is 'Political Welfare', 'i' represents interest groups as before in the Social Welfare function, 'n' represents political pressure groups in their various forms, 'α' represents the strength of political regard for social well-being and (1 – α) represents the strength of political regard for the 'well-being' of interest groups. [Equation quoted directly, text is the researcher's interpretation of Pearce's words.]

The difference between equation [1] and [2] expresses algebraically the concept at the heart of the political economy of policymaking, namely that what is the most 'efficient' policy tends not to be adopted because of the way in which political pressure is both exerted (to a greater or lesser extent effectively) and respected (to a greater or lesser extent) by the policymaking group in power. Pearce went on to warn, however, that there is a risk that a PE analysis of this kind can become purely explanatory – that it merely analyses the causes of discrepancy between the economically efficient solution and that moderated by the political context. The alternative approach, which Pearce called '*normative political economy*' and which he clearly preferred, is either to challenge the assumptions regarding the immutability of political constraints and mechanisms, or – in the event that these really are fixed in the selected case – to look for alternative policy solutions which might work more efficiently within the political context (*ibid.*:9). Drazen (2000) similarly stressed that PE needs to have a normative outcome.

While much of the political economy literature, and especially the more mathematically oriented, does tend to focus on the policy decision-making phase of the policy process (e.g. Weingast and Wittman, *op. cit.*), this aspect of policy is far from being the only object of interest. The ideas behind equation [2] (namely the way in which institutions and political pressures moderate the choice of optimum solution) also impinge on other aspects of the so-called policy cycle through to implementation.

Pearce's approach, epitomised by the formulae above, offers many insights but one limitation may be that it implies that the policy decision, though complex, can be made in a situation of unbounded rationality. As has been demonstrated in the consideration of 'policy' in chapter 2, a more realistic approach may be to concede that a bounded rationality is instead the norm and to adjust the analytical approach accordingly – indeed some might say that because bounded rationality is the norm then the role of politics is essentially to offer a way of resolving the Gordian knot of which option to select. A case for the place, and benefits, of politics in policymaking as opposed to a purely technocratic approach is made in Hallsworth, Parker and Rutter (2011).

Based on the earlier assessment of the nature of policy as that which happens rather than what is '*written down, intended or legislated*' (section 2.2) the present research seeks to deploy PE thinking in this broader context of bounded rationality. This is expected to be more relevant

to the identified core ‘research problem’ of the mis-firing of policy for construction (*‘the policy gap’* in the words of Pearce, *ibid.*:6) rather than the narrower aspect of policy choice alone¹⁸. Such a conclusion also respects the findings which emerged from the consideration of the meaning of CIP (in chapter 2, summary) that the present research problem is one of ‘.....*political economy rather than just one of political science*’.

One of the consequences of using a PE approach across the full sense of ‘policy’ is that, whereas the PE of policy decision-making tends to focus initially on a game theoretic treatment (which also lends itself to mathematical modelling of the decision process, as in Becker, 1983), it is necessary to consider also a wider variety of supporting disciplines in order to analyse and explain why the welfare-maximising option is either not adopted in the first place or, having selected it, why its selection may not always lead to the expected outcomes. This supporting cast of disciplines is examined further in the following sections.

3.3 From PE to PEA

The phrase ‘political economy analysis’ was used by Pearce (*ibid.*:9,45) to characterise his own work, implying that it is simply the application of a political economy approach during analysis, but with the explicit addition of the idea associated with the source discipline of political economy that analysis should lead to an improved or better outcome, as expressed by Pearce (*ibid.*) and Drazen (2000). However in recent years the three-word phrase has acquired a meaning representing an area of theory and associated research in its own right. Within development economics, political economy analysis (which within this thesis is referred to as PEA) has been described as:

‘..... concerned with the interaction of political and economic processes in a society: the distribution of power and wealth between different groups and individuals, and the processes that create, sustain and transform these relationships over time.’ (Collinson (Ed.) 2003:4; Booth *et al.* 2009)

Other definitions of PEA have been collated by Hudson and Leftwich (2014:29). An array of frameworks and tools have evolved, many of which are publicly available from such organisations as the World Bank, the Overseas Development Institute (ODI) and the Department for International Development (DfID). A useful review of approaches and themes, and how they can be used in the field by the non-specialist has been published by ODI (Harris & Booth 2013).

Nevertheless, the use of a PE and PEA approach has much wider application than aid and Development, and PE itself has been utilised in a vast array of situations. Drazen (2008) explored the extent to which traditional PE methods used with advanced economies could be transferred into the Development arena and concluded that, while some adaptation was necessary, the essential principles and frameworks were shared. In making the comparison,

¹⁸ In the words of Pearce: ‘One goal of political economy is to analyse how large the policy gap is, why it occurs, what the social cost of the gap is, and what might be done to reduce that cost through better policy design’ *ibid.*:18.

Drazen set out the underlying, shared, 'building blocks' of a PE approach (*ibid.*, p i23) including:

- Political actors: Leaders, citizenry, 'selectorate', and smaller groups which keep the Leaders in power
- The objectives of each of the actors
- Political mechanisms and constraints

Given the two-way flow of thinking between the traditional PE approaches and their application to Development, there is an increasing opportunity to learn from both forms when seeking to apply PE to Industrial Policy. For example, while in one sense PE can be seen as an open-ended search for explanation of outcomes with the consequence that almost no discipline needs to be excluded, on the other hand the increasing use of PEA within Development has resulted in the availability of 'off-the-shelf' tools which can be considered by the researcher. The use of tools (or models, frameworks, heuristics, and theory itself) will be discussed in more detail in chapter 4 in the context of methodology, and is a point which is explored to some extent throughout the thesis. However, before looking at the tools themselves in more detail, the next section (3.4) reviews the way in which a PE approach has been used in practice.

3.4 How has the PE approach been used ?

A search for papers on the use of PE reveals materials on a diverse array of subjects. In some cases the phrase is used without an attempt to describe its meaning, or without an identifiable framework. Simplistically, perhaps a frequent theme of papers using PE in some way is that they tend to attempt to go beyond a purely economic analysis and take into account broader sources of power and influence. Examples of research include:

- A Google Scholar search under the term 'Political Economy of...' identified work using PE in many areas or sectors including the following: aerospace, automobile, pharmaceutical, tourism, oil, film, health and sex.
- Leaman (2010) is an appraisal of the German economy after the recent financial crisis.
- The political economy of the media is a subject which has been studied extensively e.g. Hardy (2014)
- Analysis can be carried out at a global, country, sector or problem/issue level (Harris and Booth, 2013,2; Booth *et al.*, 2009:8). In fact PEA writers such as Harris and Booth tend to recommend a certain sequence of analysis, namely: global/country/sector/problem. This is discussed in more detail in section 3.7.2.1,
- As mentioned earlier (sections 1.3.1 and 3.1), the affinity between PE and IP is close and is illustrated by the existence of at least two books with the title 'The Political Economy of Industrial Policy', namely Chang (1994) and (Grant 1982)

- PE and PEA have been relevant to a number of aspects of Development including water and sanitation, and disaster relief management (Mcloughlin, 2014). For example, in terms of the application to water and sanitation alone, interest was sufficient to warrant a dedicated paper reviewing PEA methodologies in the sector (Harris *et al.* 2011) including sample questions to be asked which will be referred to later in the thesis.
- Processes as well as sectors can be the subject of PE analysis, such as international trade and urbanisation. For example, Coyle (2016) addressed the 'Political Economy of National Statistics' including the need for reform of methods of measuring GDP, as explored above (in 2.1) in relation to the significance of the construction industry.

In terms of the application of PE thinking to construction, or the built environment, the number of papers is small but does include the following:

- Early attempts were made at using PE to understand the UK housing market: Evans, (1991) and Clarke and Ginsburg (1976).
- More recently, papers have been published on the political economy of infrastructure (Coelho *et al.* 2014) and housing (Coelho *et al.* 2017), both of them in a UK context.
- Internationally, PE thinking has also been applied to housing in Sweden (Christophers 2013).
- Booth and Golooba-mutebi (2009) was a working paper on roads reform in Uganda: it addresses road building and maintenance in Uganda, the extent to which it this is disrupted by political considerations, and what aid interventions are most appropriate.
- The relevance of PE thinking to construction, however, is illustrated by Chang, (2015:92) who noted that Graham Ive began with a political economy education before becoming interested in housing policy and then construction economics itself.

While these papers do clearly deal with aspects of the built environment they tend not to focus on construction activities as such, and no paper has been identified where a sector-wide view of construction was attempted using PE or PEA. On the other hand, the very use of PE concepts in fields so close to construction does serve to suggest that there is an opportunity to use the PE approach in relation to construction policy, while simultaneously pointing towards a clear gap in the literature.

While the range of research topics addressed by PE methodologies can only be described as vast, and therefore defies any simplistic method of categorisation, one frequent theme is that of comparative PE, namely the use of a comparison of political economies in different countries (or regions) using a similar unit of analysis. A good example, in the context of developed economies, can be found in Thelen (2004), who addressed 'The Political Economy of Skills in Germany, Britain, the United States, and Japan' in order to understand the role of institutions (formal and informal). Also, Fleckenstein *et al.* (2011) used a PE approach to

compare skills and welfare provision in Germany and the UK – showing common themes such as the rise of the service economy (which to an extent challenged the traditional PE ‘Varieties of Capitalism’ explanations associated with structural factors).

A further observation on the way in which PE has been used relates to the importance of context. That is, while an underlying assumption and objective regarding the use of PE is that there is, or might be, an overarching and shared theory which is capable of being applied to very diverse problems, in practice many papers allocate most attention to description and analysis of context-specific factors rather than PE as such. An example is Collinson (Ed., 2003), a paper which was heavily oriented towards conflict in developing economies and which included several case studies: the paper offers relatively little in terms of theory other than stressing the need to consider both politics and economics. A further example is Hudson and Leftwich (2014) who, in assessing the evolution of PEA for Development and calling for it to be re-integrated with ‘*Political Analysis*’, nevertheless stressed the need to consider contingency and the path dependency of institutions in change processes (as did Thelen *op. cit.*). In other words, understanding the contextual detail is critical and, even though they offered a new theory of change, Hudson and Leftwich (*op. cit.*:72,108) cautioned against using theory in a deterministic fashion.

This brief assessment of the uses of a PE and PEA approach shows that the subject – which is perhaps inherently inter-disciplinary and multi-disciplinary (Weingast and Wittman, 2008; Hudson and Leftwich *op. cit.*:108; Edelmann 2009:6,58) – touches on many areas of academic inquiry and shows that the methodologies associated with it have been used in a variety of industrial and social contexts where change and reform are investigated. It has also been shown that, while there is no single dominant interpretation of PE, in recent years attempts have been made to adapt it into a framework capable of being applied in a repeatable way, most notably in the area of Development but also to some extent in developed economies.

3.5 Relevance to research into Construction Industrial Policy

While clearly the potential scope of PE and its application is immense, it has been demonstrated that the discipline has a close affinity with IP in particular and therefore it possesses potentially important relevance for use with CIP. Any examination of the processes of agenda setting, policy formation and implementation, and of the institutional and cultural context within which business is conducted and policy evolves, requires that the use of economic science must be supplemented by a broader view of the impacts (externalities) of how business is conducted and this inevitably involves political science: the PE approach combines these two disciplines and others. Furthermore the emphasis within political economy analysis on searching for explanations for a policy gap between intent and outcome matches very closely the research problem identified earlier (in 1.3.1). Thus the case for the application of PE to the research problem is very strong and even compelling.

The present research into CIP initially focussed on the application of political science policy models (which can be said to form one part of PE), as this would have addressed a demonstrable and specific research gap (see section 2.2.1). In the course of desk research it

became necessary, in order to understand how some of these models could be used to untangle CIP processes and power relationships, to venture into areas of study such as the theories of the nature of the state, and the nature of the firm. These questions have been the subject of examination beginning with the earliest writings on political economy through to modern times (Coase, 1937; Penrose, 1959; Glykou and Pitelis, 2011). It has thus become clear that, not only is there a research gap in the application of political science models to CIP but also that the field of Political Economy has not been applied to analyse causation and outcomes in the sector, even though individual elements associated with the PE '*family of approaches*' (Weingast & Wittman *op. cit.*:3) may have been used on a piecemeal basis (for example, the use of game theory).

Furthermore, it has become clear that in the last decade PE thinking - in the context of development economics - has been translated into operational frameworks and models in an urgent need to support workers in the field to achieve better policy outcomes. In a sense, therefore, there is a parallel between what happened in Development, where there was a recognition of a need to understand policy gaps and their change processes, and the ongoing movement regarding CIP reform demonstrated in the literature (Foxell & Cooper 2015): namely, both Development and CIP share a problem around how to explain success or failure of reform and change processes and, by extension, how to achieve more effective processes and better outcomes. In terms of a potential solution to such a shared problem Drazen (2008), as described earlier (section 3.3), concluded that the underlying 'building blocks' of PE/PEA apply equally well to both developed and developing economies. Therefore, the multiple frameworks used in PEA for Development should at least be considered for use with IP and CIP.

3.6 The research gap re-defined

As set out above (section 3.4), Political Economy methods have been used to examine Industrial Policy as a generic field, and have been used in connection with many individual industry sectors, policy challenges and processes. In addition, frameworks for the use of PE and PEA have been applied within development economics and their existence indicates the robustness of the approach and its capacity to be structured into a viable, replicable methodology. Such a history of application amounts to strong evidence for the potential relevance of the technique to use with CIP.

Section 3.4 also described the very limited extent to which PE thinking has been applied to areas of the economy associated with construction and the built environment (housing provision, infrastructure). It was confirmed that the scope of these examples was limited in two ways. First, they tend not to deal with construction activity itself. Second, despite the use of the phrase '*political economy*' to identify themselves, such papers tend not to make explicit the theory and methodology taken from PE which is being utilised. Hence the gap in existing research which is to be addressed can be summarised as the application of PE theory and methodology, in an explicit way, in the analysis of CIP.

The use of political economy methods to analyse CIP does not represent a departure from the original direction of the present research, which would have utilised political science models,

but builds on and extends that proposal. The research problem as defined (section 1.3.1) seeks an understanding of the pattern of a CIP policy gap leading ultimately to better outcomes, and remains unchanged. Whereas the obvious theoretical base from which to understand policy might have been seen as that of political science, the detailed consideration of both construction industrial policy (chapter 3) and political economy (chapter 4) has led to the conclusion that neither political science alone nor economics alone would respond sufficiently to the research problem. Hence the research question, aim and objectives are all expressed in terms of importing and adapting a political economy analysis framework, and then using it to understand CIP (see Figure 1). There are therefore two interdependent strands to the research: the use of PEA to understand CIP and the use of CIP to understand PEA.

3.7 A potential PEA framework for CIP

Much of the foregoing has been an introduction to the concept of Political Economy and to some of the principles used in analysis. This section is concerned with the formation of a PEA framework which can be used in analysis of CIP and hence addresses Objective 1 (namely, the formulation of a method of analysis). In preparation for the main task of forming the framework, the themes of PE already introduced will first be summarised and where necessary added to.

3.7.1 Themes

3.7.1.1 The big picture

Drazen (2000:5) characterised Political Economy as being

'.....concerned with how politics will affect economic choices in society'.

As discussed earlier (3.2), the idea that political processes might lead to a less than economically optimum solution was expressed mathematically by Pearce (2005:8). It was observed (sections 2.2 and 3.2.1 above) that PE thinking is to be applied not just to the decision-making phase of the policy cycle but to all other phases (policy needs to be concerned with what happens rather than what is *'written, intended or legislated'*). It was also noted (in 3.3) that the scope and purpose of PEA, at least for Development, were expressed by Collinson thus:

'Political economy analysis is concerned with the interaction of political and economic processes in a society: the distribution of power and wealth between different groups and individuals, and the processes that create, sustain and transform these relationships over time.' (Collinson (Ed.) 2003:4; Booth *et al.* 2009)

It was concluded that PEA is concerned both with analysis (in the present case, of policy gaps) and enabling better outcomes. The particular relevance of PE and PEA thinking to industrial policy was explained in that both are concerned with the interaction of economics with political processes, and the relevance was expressed by Glykou and Pitelis in terms of the modern

concept of IP resting on PE '*foundations*' (2011:461) including theories of the State and of the Firm. The connection between political economy and industrial policy was further reinforced by reference to Grant (1982:3) who proposed that political economy, political science, organisation theory and 'Science & Technology Policy' are all needed when seeking to understand industrial policy.

The next section (3.7.1.2) collates the component themes of PE and PEA, taken from various sources. But it must be said that there is no specific boundary to what might need to be considered when seeking to explain the PE (and hence CIP) policy gap. For Weingast & Wittman (2006:3) PE is a '*family of approaches*' rather than a '*single unified approach*'. For these authors PE investigates '*an ever deepening set of questions*', and over time more institutions '*...are treated as variables to be explained*' so that, for example, '*anthropology and history become part of political economy*' (*ibid.*:22).

One attraction of PE thinking is therefore that it enables and prioritises an holistic and systemic perspective on, in the present case, policy and as such it avoids the narrow focus on the application of individual policy models from political science alone. Finally, in beginning to set out a framework, it is timely to repeat the warning of Hudson and Leftwich (72,108) against the use of the theory and framework in a deterministic fashion: it is about increasing understanding rather than '*offer[ing] predictions*'.

3.7.1.2 Components

Many of the elements of PE and PEA have already been referred to and these include the following:

- 'How politics will affect economic choices' (Drazen [2000:5]) and the 'interaction of political and economic processes in society' (Collinson (Ed.) *op. cit.*:4 and Booth *et al. op. cit.*)
- The individual disciplines of economics and political science retain their relevance, especially in relation to the availability of theory, insight and not least the language which can be used to express meaning and ideas relevant to any attempt at a systemic view.
- The idea of not just understanding but also enabling change (*Pearce, 2005 op. cit.*)
- Questions of power, its sources, how it is deployed: '*the distribution of power and wealth between different groups and individuals, and the processes that create, sustain and transform these relationships over time*' (Collinson (Ed.) *op. cit.*:4 and Booth *et al. op. cit.*)
- Structure: those features which may be seen in practical terms as relatively stable but influential
- Institutions – both formal and informal – while these are often deeply embedded they are however susceptible to change over time either as a consequence of external events or as deliberate action (Booth *et al.* 2009: 4); these institutions include '*political mechanisms and constraints*' (Drazen, 2008)

- The role of political actors, their motivations, objectives and beliefs (Drazen 2008: i23); their interests and incentives and how these might lead to specific policy outcomes (Booth *et al.* 2009:4); and their agency – their capacity to act
- ‘The impact of values and ideas.....on political behaviour and public policy’ (Booth *et al.* 2009:4)
- The interactive and dynamic nature of the way in which structure, institutions and actors influence each other (Booth *et al.*, 2009:9)
- The interchangeability of functions of the state and the firm – including both the ability of larger firms (especially multi-national enterprises) to act politically and provide public goods as well as the potential for states to influence or even participate in business (Glykou and Pitelis 2011: 471-473)
- Theories of the state and the firm (Glykou and Pitelis, 2011): different theories adopted, consciously or unconsciously, affect the national economic and political system
- The idea that different national constitutional and economic systems are associated with differing emphases on various aspects of business such as investment and skills (Drazen 2008; Thelen 2004; Winch 2000; Booth *et al.* 2009; Hancké in Coen *et al.*, *op. cit.*). The concept of the national system may need to be modified in the context of:
 - first, Multi-Level Governance: the influence of supra- and sub-national systems of governance such as the EU and the World Trade Organisation (WTO) *etc.* (see Cairney 2012:154 and Moran in Coen *et al.*, *op. cit.*: 394) and, in the UK, the influence of devolution and localism (city mayors, regional ‘powerhouses’ *etc.*)
 - second, in the context of the Multi-National Enterprise which is not fully or solely subject to local governance (Pitelis in Coen *et al.*, *op. cit.*)
 - These considerations challenge any implication, when speaking of national economic systems, that these are under the sole influence of national policymakers, though the idea that nevertheless there are important systemic differences between countries still seems to be potentially important in understanding constraints on policy for industry.
- Organisation theory (Grant 1982: 3)
- Game theory (Pearce 2005, Becker 1983)
- Other disciplines may be brought into play in order to improve the explanatory power of PE/PEA (e.g. ‘*anthropology and history*’ Weingast & Wittman (*op. cit.*: 3))

The list may be expanded over time, as in due course certain assumptions (made by, say, policymakers or stakeholders) about the context are challenged as being open to change rather than fixed. The degree of emphasis placed on any one of the above components varies considerably between users, and over time. For example, in the Development community the methodologies have undergone an almost continuous evolution – Hudson & Leftwich (*op. cit.*) refer to three ‘*generations*’ of political economy used in Development. Nevertheless *Harris et al.* (2011:36), in their review of how PEA for Development had evolved, and in comparing a variety of different methodologies concluded that there was a high degree of compatibility between the many variants of PEA and that the key themes remain:

‘structural factors... institutions.... actors/stakeholders..... incentives’.

(see the Glossary for definitions of PE and PEA terms)

Hence, despite the evolution and expansion of techniques over time the core concepts remain in place and are widely accepted. The accumulation of additional techniques over time has not so far made the core ideas redundant but are a means of providing greater range and depth of sensitivity to potential influences on events within the chosen unit of analysis.

It must be observed, in the context of the current research, and because PE/PEA borrows from a variety of disciplines, that some of the individual methods referred to in the above list have from time to time either been used in analysis of construction policy, or the case has been made that they should be used: e.g. Rigby *et al.* (2014) deployed game theory to address construction benchmarking; Smiley *et al.* (2014) proposed the examination of *‘socio-cultural structures and forces that influence behaviour’* in considering change and reform in construction; the influence of structural forces was emphasised by Müller (2016). These papers, and others, individually did not refer to PE as an over-arching or connecting perspective, but arguably can be said to be at least compatible with a PE approach – that is, while such individual methods have been developed elsewhere, quite independently of PE, they appear quite clearly also to occupy a place within the so-called ‘family of approaches’ within PE (Weingast & Wittman, *op. cit.*:3).

This reference to a multiplicity of methods from diverse academic disciplines, often if not mainly independent of PE itself, prompts a further observation and qualification, about their proposed utilisation in developing a PEA framework. Namely, there is an inevitable risk that the terms and concepts referred to may have different meanings in different disciplines, and there is a risk of incommensurability (literally, lacking ‘*a common measure*’- *The Shorter Oxford English Dictionary*. 3rd edn, 1983). Sometimes even the reference to a particular concept or typology, for some observers, may betray a particular value system or methodological orientation. (Most prominent, perhaps, in the current context is that the term ‘Industrial Policy’ itself is one which is objected to by certain economists – see section 2.3.) Such difficulties in interpretation and communication, arising sometimes from different world-views, must not be underestimated, and they will be the subject of further discussion at different stages in the thesis. Yet to some extent such obstacles are unavoidable if the integrating potential of PE is to be realised: that is, the potential benefits of using simultaneous multiple perspectives to achieve an holistic, systemic understanding need to be balanced against the risk of confusion of meaning.

3.7.2 A Framework

Reference has already been made to the fact that, while PE and PEA have been used in a wide variety of contexts, the particular circumstances of Development have led to the formation and utilisation of a succession of PEA frameworks or tools (section 3.7.1.2). The circumstances in question were those of needing to understand, for operational purposes, the challenges of ‘reform’ (at country, sector or policy level) and the search for solutions more likely to be appropriate and effective (Harris *et al.* 2011:36): in addition, there was a search for consistency of application (*ibid.*). Hence, while this paper derives its orientation from PE

concepts in general, what has been achieved by the Development community in initiating their PEA framework approach has resonance for construction policy for the following reasons:

- The history of CIP reform, and the need to understand policy processes suggests there is a great deal in common between Development and CIP which lends itself to the application of PEA in both cases
- The history of development of PEA frameworks, which tend to be based around the idea of forming a consistent and repeatable process of PEA in the sector, suggests that a corresponding framework for CIP should at least be feasible
- The concerns of PEA, and PE itself, are closely aligned with those of Industrial Policy in general and hence with CIP in particular (not least because of the role of the state as client, sponsor or key stakeholder in construction activities) so that, even without the existence of the work on PEA for Development, the use of a form of PEA for CIP analysis would seem to be a rational evolution.

It is anticipated that the transfer of knowledge from Development PEA into construction management research will not amount to a perfect replication of an existing framework for at least three reasons. First, there remains no single dominant body of theory or dominant Development PEA framework, so a degree of aggregation and synthesis will be necessary. Second, the circumstances of Development, dealing as it does with less advanced economies, differ markedly from those of construction in the industrialised economy of the UK, and so any PEA framework and methodology synthesised from Development sources would need to be interpreted and adapted for use in an economy such as that of the UK. Finally, the utilisation of any framework for the first time is expected to lead to insight not just concerning the unit of analysis but also concerning the methodology and framework itself, thus leading to further evolution of the framework.

3.7.2.1 Existing models of PEA used in Development

In the Development community PEA is sometimes referred to as being part of, or subsidiary to, Governance Analysis (Booth *et al.*, 2009) which is associated with an assessment of the way in which a state is governed and 'ought' to be governed in a fundamental sense (such as the extent of the rule of law), rather than about 'how' to achieve a change – the latter emphasis being associated with PEA (*ibid.*:5). Clearly there is a great deal of common ground, at least at state level, between Governance Analysis and PEA but, for CIP within a relatively stable developed economy such as that of the UK it is considered that PEA will be the more relevant approach given that any structural and institutional aspects can still be considered within PEA¹⁹. Hence it follows that, for analysis of CIP in a developed economy, PEA models used in Development can be considered on their own merits without incorporating Governance Analysis as a discrete method.

¹⁹ Over the course of research it is evident that the stability of the UK economy and constitutional settlement has been called into question, with the simultaneous debates about the exit of the UK from the European Union and Scotland's potential departure from the UK. Therefore governance issues cannot be entirely excluded from the present research scope.

PEA has also been challenged within the Development community in more recent years on the grounds that, in practical application, there has been a weakening of its 'political' dimension (Hudson & Leftwich 2014; Green 2016). Hence, in order to explicitly correct this imbalance, approaches such as '*Political Analysis*' and '*Power and Systems Analysis*' have been put forward (i.e. by Hudson & Leftwich, and by Green respectively – the latter's being a very empirical approach). Again, while such a challenge to the utilisation of PEA must be acknowledged, it is considered that the cause of such a challenge and the proposed remedies are more to do with inhibitions among analysts surrounding maintaining a 'political' (power) perspective rather than any inherent problem with PEA itself: Hudson & Leftwich note that Development practitioners can sometimes find it less problematic to focus on, say, technical, aspects rather than address directly questions of power and institutional change in their research and reporting. This situation even seems to echo Pearce's warning that moving from analysis to the second stage of challenge and change can be overlooked (*op. cit.*; see section 3.2.1). Hence it is considered that work by these authors does not amount to an undermining of the value of PEA as such but in a sense represents an attempt to return to the roots of PE (as distinct from economics alone) out of which PEA has grown. Their challenge was concerned with both the scope of analysis as well as the need to provide greater definition of the method – a perspective to be heeded in the present research.

There is a great depth of literature on tools and frameworks used in PEA for Development, representing an evolving and dynamic field of inquiry and application. A useful overview is provided by Mcloughlin (*op.cit.*) who utilises a variety of sources including the Overseas Development Institute (ODI), the UK's Department for International Development, and international sources such as the World Bank. A more comprehensive overview of '*political economy approaches*', albeit ostensibly focussed on sector-level work, is Edelmann (2009). A third overview is provided by Harris *et al.* (*op. cit.*) which, even though prepared as guidance for the use of PEA in one very specific sector (namely, water and sanitation service delivery), includes a survey and synthesis of a number of PEA methodologies. Significantly, Harris concludes that the multiple frameworks available '*share a common core, requiring analysis of similar components*' (namely, as discussed in section 3.7.1.2: '*structural factors, institutions, actors and incentives*') though he remarked on the inconsistent terminologies used even within different PEA methodologies (*ibid.*:v).

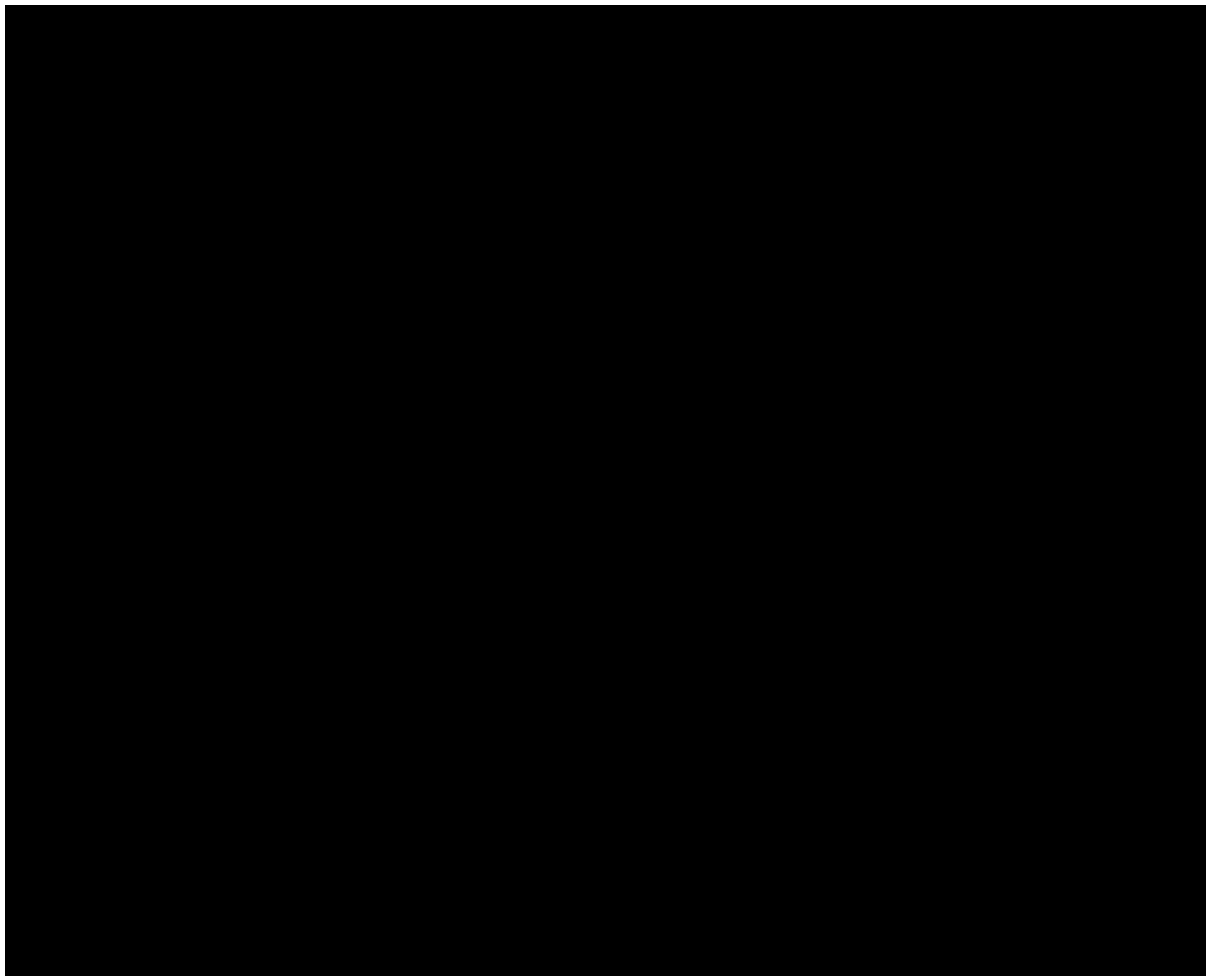
In terms of specific methodologies, Booth *et al.* (2009) represents a useful attempt at synthesising a generic PEA approach to be used in a variety of Development contexts and designed for use by practitioners, including extensive guidance on practical aspects of implementing PEA. Other descriptions of specific techniques include Poole (2011) which addresses 'sector and project' level PEA analysis and Harris (2013) which addresses 'problem' level analysis. Booth makes the point, while distinguishing between country, sector and problem level analysis, that the more specific and focussed applications of PEA should nevertheless rest on a prior PEA analysis carried out at country level (Booth *et al.* 2009:8). While all of these reports, and many others, contain valuable reference material including explanation of theory and definitions, in terms of a single integrated methodology resting on an established PE basis Booth *et al.* (*ibid.*) represents perhaps the leading example of an approach capable of being considered for adaptation for use with CIP. Therefore this approach has been selected as a starting point for the present research. A caveat made by Booth which merits repeating at this stage, of starting to develop a PEA framework for construction, is that PEA is '*not a magic bullet*' (*ibid.*:1) even if it is a potentially powerful approach.

However the description of a PEA method presented by Booth *et al.* (2009) lacks a single visualisation of the approach, for which other sources have been identified. Poole (2011:3) presents a framework for 'sector and project' level assessment (shown in Figure 4):

Figure 4: 'Steps in a problem-driven PE Analysis'

Source: Poole (2011:3)

Image redacted for copyright reasons

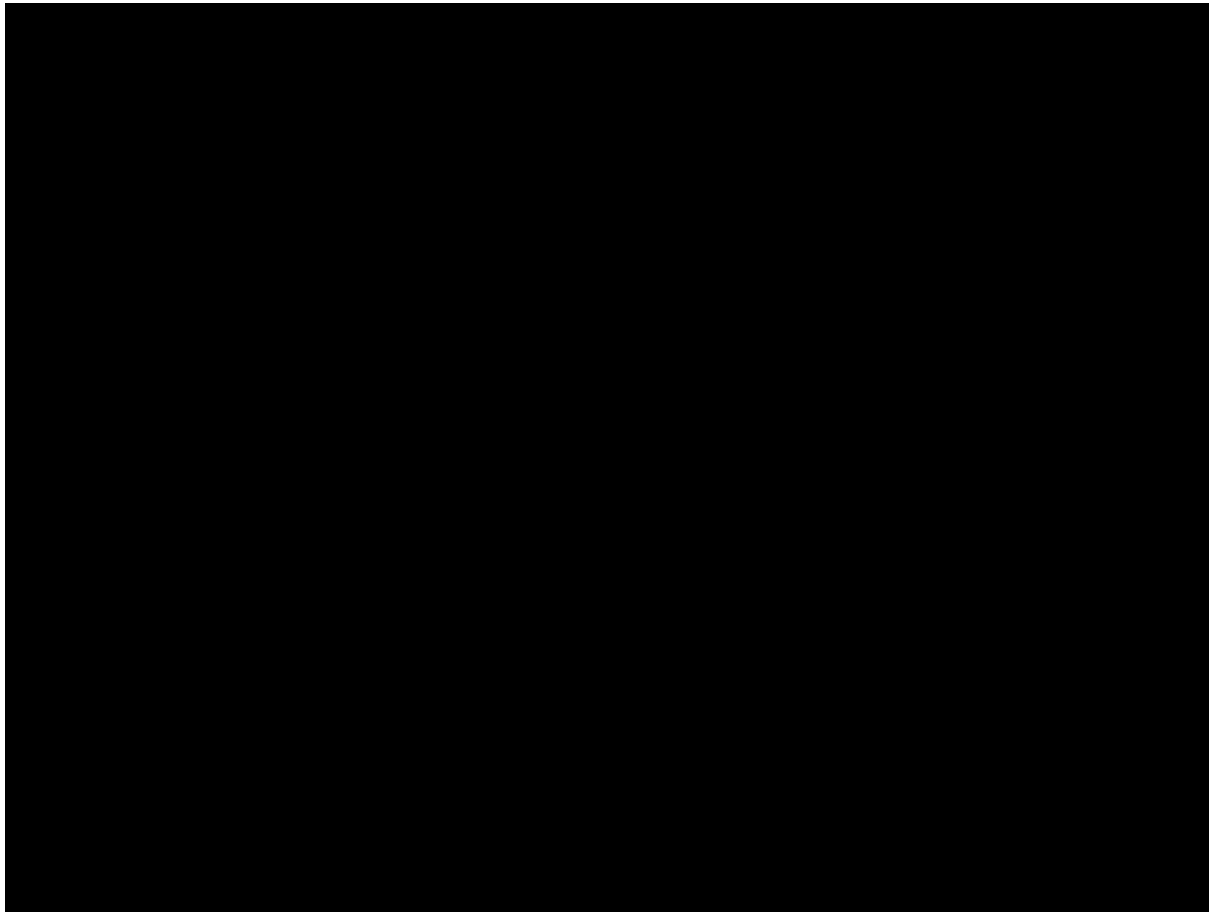


A slightly expanded version of a problem-driven framework is offered by Harris (2013:5):

Figure 5: 'Problem-Driven Framework for applied political economy analysis'

Source: Harris 2013:5

Image redacted for copyright reasons



In fact, Harris (*ibid.*) credits Poole (*op. cit.*) with having formed an 'earlier iteration' of the problem-driven framework. Harris states that the framework, and the concepts to which it refers, represent a starting point rather than a rigid menu of steps. As with Poole, the framework includes a prescriptive step: Poole's stage 4 approximates to the third element in Harris' step 3. But Harris does elaborate a little more on this final phase, stressing the degree and type of analysis necessary to support any recommendations.

Both Poole and Harris separate out, on the one hand, structural and institutional factors from, on the other hand, actors, agency and motivations. Harris's model however stresses the interaction between these two groups and the way in which the influence of one on the other is mutual and therefore potentially dynamic. While Harris drew attention to such mutual interaction based on empirical evidence from utilisation of PEA frameworks, the concept is supported elsewhere in the literature – e.g. Acemoglu and Robinson in Weingast & Wittman (2006:674) presented a more theoretically argued view of how this capacity for mutual influence can work to enable societies, institutions and sources of power to evolve over time. Indeed, it is in this area where perhaps the strength of the PE method resides in that, having analysed current constraints and opportunities, alternative configurations may be identified and assessed along with pathways for change.

3.7.2.2 *Adaptation of the framework for CIP*

Reflecting on the previous section describing existing models of PEA and the visualisation of a framework, and taking the lead from the methodology proposed by Booth *et al.* (2009) a possible model for PEA of CIP starts to emerge. The visualisation offered by Harris (2013) includes all the core concepts plus the explicit recognition of the dynamic interaction between actors and he what calls '*systemic features*' (structure, institutions and 'rules of the game': see Figure 5). Figure 9 (in section 7.1) illustrates a version of the model derived, tested and developed over the course of the present research.

The visualisation of the framework helps to show how the various elements combine and provide a sense of an integrated set of ideas. Whilst heeding Harris's warning against too literal or too prescriptive an interpretation of his framework (*ibid.*:3), any researcher needs to apply the methodology in a series of steps, some of which may need to be iterative during what Harris terms the 'diagnostic' phase. Building on the recommendations of Booth *et al.* (2009), and bearing in mind the orientation of the present research towards a specific sector (UK construction) with an apparently mis-firing policy process, the following elements are recommended:

- Definition of the 'Problem' (what are the symptoms, what were the 'theories of change', if any, which supported previous attempts at change)
- Analysis at the country (national) level (structures, institutions, actors/agency)
- Analysis at the sector level (structures, institutions, actors/agency)
- Analysis at the 'problem' level (structures, institutions, actors/agency)
- Following Harris (2013) the mutual influences and interactions between structure, institutions and actors need to be identified and explored (see Figure 5), as it is in this area in particular where the explanatory (and then prescriptive) potential of PEA is revealed.
- The interactions between structure, institutions and actors are important because they represent evidence of past and future change processes, and examination may begin to suggest alternative change scenarios (or '*theories of change*' - Green, 2016:236). While, as explained earlier (section 1.3), it is not the prime objective of this research to propose policy solutions as such, on the other hand it follows from the definition of the research problem that the research should test the capacity of PEA to lead towards alternative approaches to change.
- In terms of the questions to be asked during the research process, Booth *et al.* (2009:12) suggest a set of sample questions. These questions are designed to prompt lines of investigation and, as generic questions, need to be adjusted to each policy 'problem' to be investigated. The discussion of CIP (chapter 2) led to recommendations concerning the need for stakeholders to be interviewed concerning a number of topics (section 2.6). From these two sources a revised set of questions was developed and is shown in Figure 6.

Figure 6: Sample questions for Political Economy Analysis

(adapted from Booth *et al.* 2009:12)

	Question
1	Setting the context: What are the top 5 current challenges in the sector ? To what extent are you aware of any overarching national, regional or local Industrial Policy (or Strategy) for Construction? Is there a way in which you (or your organisation) can have an input into the strategy, either directly or, say, via a trade association ?
2	Decision-Making: How are decisions made within the sector ? Who is party to these decision-making processes ?
3	Historical legacies: What is the past history of the sector, including previous reform initiatives? How does this influence current stakeholder perceptions?
4	Implementation Issues: Once made, are decisions implemented? To what extent do outcomes match the expectation of policymakers ? Where are the key bottlenecks in the system? Is failure to implement due to lack of capacity or other structural or institutional reasons?
5	Institutions, regulation: what is the balance between formal and informal institutions and rules which determine the way in which business is conducted ?
6	Roles and responsibilities: Who are the key stakeholders in the sector? What are the formal/informal roles and mandates of different players? What is the balance between central/local authorities in provision of services?
7	Ownership Structure and Financing: What is the balance between public and private ownership? How is the sector financed (e.g. public/private partnerships, user fees, taxes)?
8	Power Relations: To what extent is power vested in the hands of specific individuals/groups? How do different interest groups outside government (e.g. private sector, NGOs, consumer groups, the media) seek to influence policy?
9	Governance: Is there significant corruption and rent-seeking in the sector? Where is this most prevalent (e.g. at point of delivery; procurement; allocation of jobs)? Who benefits most from this? How is patronage being used?
10	Service Delivery: Who are the primary beneficiaries of service-delivery? Are particular social, regional or ethnic groups included/excluded ? Are subsidies provided, and which groups benefit most from these?
11	Ideologies and Values: What are the dominant ideologies and values which shape views around the sector? To what extent may these serve to constrain change?
12	Potential for Reform: Who are likely to be the “winners” and “losers” from particular reforms? Are there any key reform champions within the sector? Who is likely to resist reforms and why? Are there “second best” reforms which might overcome this opposition?

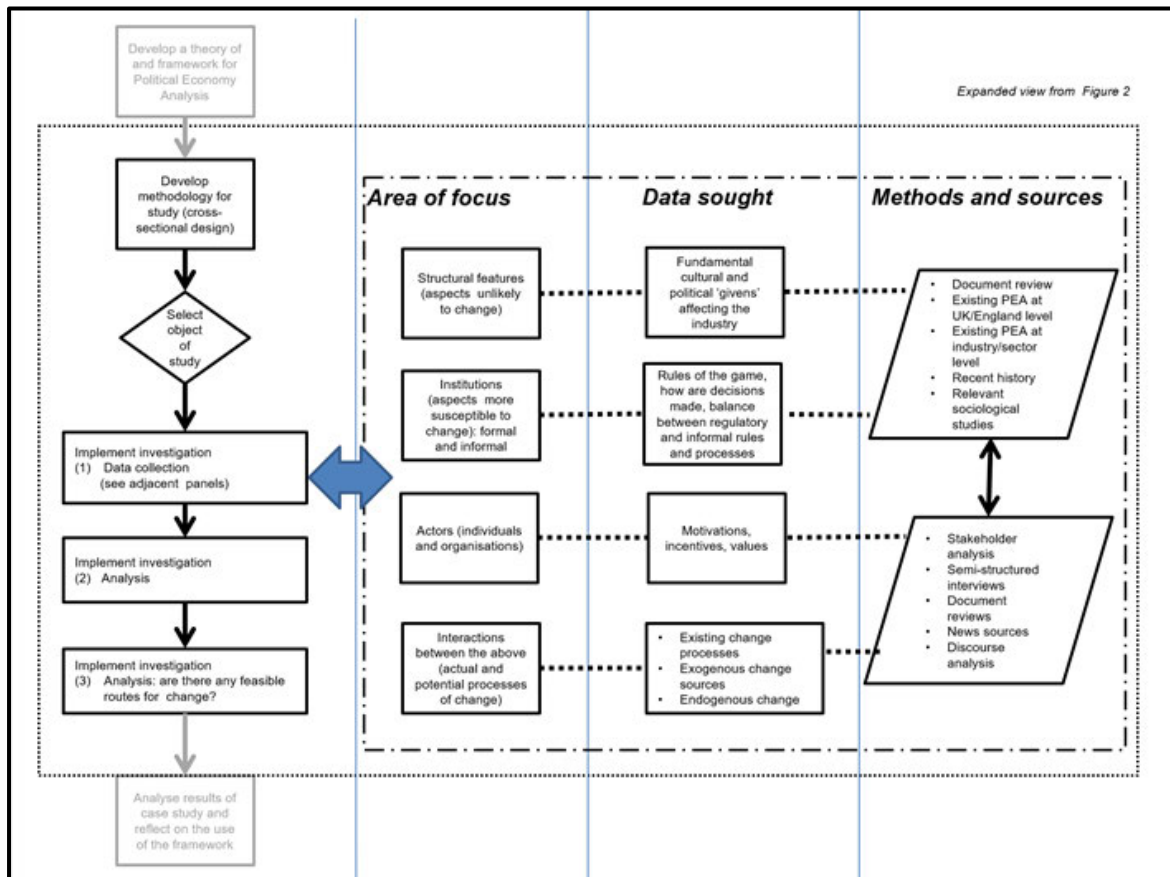
One point here is that, for any specific ‘problem’ to be diagnosed, the sector and national contexts need also to be described as a prerequisite – in fact, as Booth *et al.* (*op. cit.*) points

out, some studies may simply end at a national or sector level while providing in effect a resource for any 'problem' as yet undefined. In addition, some studies may select a 'problem' at a national or sector level. For these reasons the simple hierarchy of country/sector/problem in practice may become blurred depending on the subject selected for analysis. For example, Harris (*op. cit.*:2,3) recommends using a problem-based approach even at sector level in order to '*help ensure the analysis is more relevant*'. The advantage of selecting a problem-driven approach is not, for the current purpose, that it is suited to a highly focussed examination of a single phenomenon but that it forces the research to go beyond description and instead requires a search for explanation – leading, potentially, to alternative outcomes: Pearce (2005:9), Booth *et al.* (2009:13). In the present case, the subject of research corresponds to a sector and, also, the research has begun from a defined research problem – namely the need to understand the patterns of apparent mis-firing of construction industrial policy (and ultimately, how to reduce such mis-firing). Therefore the model used (Figure 9 in section 7.1) has been orientated around a problem-based approach rather than being mere description.

The PEA literature also offers recommendations concerning style of conduct of a PEA exercise (Booth *et al.*, 2009; Poole, 2011:8). For example, the methodology is flexible enough to allow a brief desk-based study in order that an individual new to any specific policy area can quickly become acquainted with its key characteristics. At the other extreme, it may be appropriate to deploy a multi-disciplinary team over an extended period of time to conduct a comprehensive PEA review in order to arrive at new policy solutions. In the case of the latter method, the team members are not necessarily all to be specialists (say, in economics and policy) but should include individuals with detailed local (country or sector) knowledge. In such cases, the literature suggests (*ibid.*:20) that the value of the collective PEA effort might lie less in the technical process of data collection and analysis and more in the interactions within the team being part of the change process itself – provided the team includes stakeholders with sufficient involvement with the policy problem selected. For example Booth *et al.* (*ibid.*:20) propose, ideally, a continuous PEA review as part of an on-going change process rather than a series of one-off studies. In the same vein, Whaites (2017:10) concluded that current trends in the use of PEA are towards a '*continual and iterative process*' rather than major periodic exercises in research.

In the case of the present research, clearly the resource available has enabled a depth of research perhaps mid-way between the two extremes just described – namely, the research has essentially been carried out by a single analyst but implemented over a period of approximately 2 years. Booth (2009:21) stresses the need for methodological rigour, including the recommendation that data as far as possible need to be triangulated using multiple sources of information. The research therefore has made use of both desk-based research of existing literature and other documentary sources, and has required the collection of data in the field using semi-structured interviews. The approach to the case-study is summarised in Figure 7. The overall methodology and method will be discussed at more length in chapter 4.

Figure 7: The research process



Summary of Chapter 3

A potential framework: 'Political Economy Analysis'

This chapter (3) has explored the theoretical underpinnings of Political Economy. It has shown how modern ideas of political economy analysis have emerged from, and apply, the core concepts of PE. A diverse, and ever-widening, range of disciplines has been identified as being available and appropriate for use within any analysis seeking to make use of PE theory. The case has been made that neither political science nor economics, taken singly, are sufficient to address the research problem but that the combined and integrated approach of political economy is likely to be beneficial. In the light of this assessment the gap in research, identified in section 2.2.1, was reconsidered and expanded to recognise the gap in the application of PE theory and methodology, in an explicit way, in the analysis of CIP. The theoretical frameworks for political economy analysis, which have been developed and put to use by others specifically in the realm of Development, have been assessed. These frameworks have been adapted, taking into account differences in context and purpose, for the analysis of policy for construction in a developed economy (namely, the UK). The practical aspects of what is required in the conduct of the case study have been set out. The utilisation of any framework for the first time is expected to lead to insight not just concerning the research subject but also concerning the methodology and framework itself, thus leading to further evolution of the framework. There are therefore two interdependent strands to the research: the use of PEA to understand CIP and the use of CIP to understand PEA. What has not so far been considered in any depth is the research philosophy lying behind the planned research. This is the subject of the next section.

4 Methodology

Chapter highlights:

The nature of the research - policy analysis – implications for methodology – interpretivism and conscious reflection – abduction – the use of theory and frameworks - design of research

Introduction

The previous section assembled a potential framework and method of analysis for use with construction policy, based on PEA principles and utilising techniques employed in the Development sector. It concluded by pointing out the need for a deeper consideration of research philosophy, which is the subject of this section.

The subject of interest is policy for construction and CIP is the unit of analysis. The research problem, question and objectives have been defined in Chapter 1. Figure 2 (included in section 1.5) illustrates how these elements relate to the research process and to the structure of this report. The research endeavour can be characterised as one of policy analysis using a framework of Political Economy Analysis. More specifically, the research explores different approaches which could be used in the analysis of Construction Industrial Policy, develops a framework based on experience in other sectors, and tests the framework in use with a view to it being used in the future analysis of construction policy. Despite the diverse range of disciplines relevant to a PEA inquiry, the underlying task remains one of policy analysis, and so the starting point for a consideration of philosophical aspects of the inquiry, and the nature of knowledge which might be available for discovery, is that of the literature on policy analysis. Other sources are also considered including those from Political Economy and PEA itself.

Given the nature of policy analysis, an interpretivist approach is considered, as a natural first step. The research is exploratory and inter-disciplinary and the extent to which interpretivism is compatible with this context is considered. The meaning of theory, models and frameworks, and how they will be used, is considered. Finally, the proposed research design is reviewed and adjusted to be consistent with the selected research philosophy.

4.1 The nature of policy analysis

The individual objectives required in order to address the overall aims of the present research depend on the nature of policy analysis and the kind of learning, or understanding, which it is capable of generating. Gordon, Lewis and Young (in Hill 1997:5) made a useful distinction between analysis *for* policy and analysis *of* policy. The former is to do with, for example, generating information for use in advocacy and the development of individual policies whereas

the latter is more to do with how policy is determined and may include analysis of policy content (though the same source accepts there is a continuum rather than a sharp divide between the two styles of analysis). Therefore, because processes at a meta-policy level are the subject of the proposed research, the analysis of policy is the most appropriate description of the present research.

Gordon, Lewis and Young (*op. cit.*:7) recognised that assumptions which researchers make about policy and policymaking affect the design of research. In this regard they make a distinction between, on the one hand, a normative and '*rational*' approach to understanding policymaking and, on the other hand, an approach which recognises that policymaking is '*an inescapably political activity*' (*ibid.*:7) where perceptions, interests and values of actors affect all stages – the latter approach being the less unrealistic. Such a stance is in line with the motivation of those who sought to emphasise political analysis within considerations of policy whether economic policy for developed economies (Tompson & Price 2009; Høj *et al.* 2006; Pearce 2005) or policy for developing economies (Collinson [Ed.] 2003; Booth *et al.* 2009; Hudson & Leftwich 2014). This 'political' view of policymaking, with its recognition of the constraints on arriving at entirely rational explanations of outcomes, appears to add to the sense that rationality in decision making is bounded by uncertainty, incomplete information and complexity as proposed by Simon (1972) (and referred to in section 2.2 above). Therefore the warning from Cochran & Malone (2005:44) that

'...the current understanding of the policy process is really a heuristic model, not a theory which allows explanation and prediction'

is pertinent here, as the complexity and political nature of the policymaking environment, and the role of the values and beliefs of participants, will tend to militate against the use of entirely rationalistic, deterministic, modes of thought.

In addition to the question of what is being observed, or available for observation, the observer him- or her-self inevitably brings a set of values, beliefs and motivations to the inquiry. This was well expressed by Buse (2008:11):

'....in the policy sciences, the search for explanation is intimately bound up in perceptions held both by the participant and the observer of the variable (which may or may not even account for the occurrence)'.

Buse (*ibid.*:11) went on to refer to Klein and Marmor (in Moran *et al.* 2006) who characterized 'policy-making as '*a strange theatre*', an understanding of which requires the researcher to enter the '*assumptive worlds*' of the policy-makers'. Buse was concerned with generating a more theoretically sound, and structured, approach to what he called '*prospective policy analysis*' – this form of policy analysis is explicitly aimed at achieving policy change as opposed to explanation. While stressing the subjectivity, and elusive nature, of much the subject matter in policy analysis, he was concerned with introducing as much methodological rigour as possible, indeed he saw the need for rigour as a necessary consequence of the challenging nature of the available data and of the investigative process.

While Buse was primarily concerned with policy for healthcare, and with policy analysis as such, much of his thinking is relevant not just to other policy fields but to the application of PEA thinking. Indeed, Buse refers several times to political economy and its concepts (actors, structure, institutions for example are common concerns of both policy analysis and political

economy). Hence the methodological interests of Buse can be seen also as representing similar concerns to those of the present research. In particular, the consideration of the nature of the data and process proposed for use with analysis of CIP raises ontological questions which are addressed in the next section.

4.2 Policymaking, policy analysis, and implications for Methodology

The previous section referred to certain constraints on policy analysis which derive from the nature of policymaking. It was concluded that the complexity and political nature of the policymaking environment, and the role of the values and beliefs of participants, will tend to militate against the use of entirely rationalistic, deterministic, modes of thought. Etzioni (in Moran *et al.* 2006:833) expressed a similar view in stating that policy research necessarily makes use of a broad range of considerations, some of them not necessarily scientifically based, which draw on '*...distilled practice and are not derivable from basic research*'.

Such a context does not lend itself to the precision of a positivist approach to the epistemology of the policy process. The kind of evidence and analysis required for policy research is likely to be more compatible with methodologies more often used in social science. While the distinction between quantitative and qualitative methodologies is not synonymous with that between positivist and interpretivist approaches there is scope for confusion, which needs to be avoided (Miller *et al.*, 1998), as the evidence to be accumulated for the present research is likely to be more qualitative in nature. In addition, as pointed out by Chatterjee (2013) methods of inquiry can be inadvertently selected which are at odds with the ontology adopted at the outset.

Having declared these constraints, there seems to be a strong case that, because the subject of the research is both intangible and the product of complex interactions between people and organisations heavily influenced by cultural and historical context, an interpretivist approach should be adopted. This approach seems to be appropriate given the substantial uncertainties associated with the nature of the field of study and the consequent challenges in observation, data collection and analysis. However, there are reasons why this presumption in favour of interpretivism should be challenged, for the present research, and these are considered in the next section.

4.3 Is interpretivism an appropriate approach ?

4.3.1 Compatibility of interpretivism with the chosen PE approach

The case for the use of political economy theory and methods has been made in earlier chapters. Despite its multiple manifestations, political economy is at root inter-disciplinary and multi-disciplinary. It is a problem-oriented field of work rather than a discipline in its own right (a more general differentiation between discipline-oriented and domain-oriented academic

fields is made in Schweber, 2015) . One benefit of adopting the more empirical approach is that there is an inherent alignment with the kind of problem to be addressed, which in PE is often one of a policy gap comparable to the concern of the present research in relation to CIP. Additional observations, concepts and theory can be brought into the analysis should they appear to offer relevant explanatory power. Hence a second benefit of the more empirical approach is that an holistic or systemic view is enabled.

On the other hand, as has been alluded to in the discussion of the components of PEA (in section 3.7.1.2), one consequence of such an inter-disciplinary mode of working is that there is a great danger of incommensurability of the terms, concepts and methods employed. Another, related, consequence is that the philosophical underpinnings – epistemology and ontology – are at risk of becoming less coherent and visible. Hence a methodology is required which would be compatible with inter-disciplinary work.

At the same time, the discussion in chapter 3 in particular has led to a focus on a framework of theory and method, imported and adapted, from its use for PEA within Development, for use with CIP. A graphical representation of such a framework may be one expectation suggested by the review of PEA methods (section 3.7 above). At an early stage in the research process, and after three pilot interviews²⁰ were reviewed, the concern grew that there was a risk of being diverted towards a concentration on an over-simplified, even mechanistic, model for use with policy for construction. The ability to maintain a sense of individual agency and perspective on the part of each participant, the role and influence of the researcher within observations made, and the need to heed warnings from writers on PE that the methodology is not to be seen as deterministic, seemed to require a re-emphasis of an interpretivist approach.

Therefore, having started with the idea that policy analysis should utilise an interpretivist approach, the recognition that for the benefits of the use of PE theory to be realised an inter-disciplinary mode of working is required, establishes a dilemma for the selection of an appropriate epistemological position. To resolve this dilemma a search was conducted for a more appropriate methodology.

4.3.2 The use of conscious reflection

In terms of method, and from a relatively early phase of the research, an important strand of investigation has been that of the use of conscious reflection (Schön 1983 and Pettigrew 1997, who both tended to use the term ‘reflexivity’) as a means of gaining and capturing insight into many aspects being investigated, including the researcher’s own use of PE and PEA methods. A particular reason for examining this was the perception that the author’s prior experience and participation directly in policy for construction was itself a potential source of insight or, conversely, even unconscious bias, neither of which should be ignored. It is significant also for the present research into policy that Schön’s 1983 book includes a complete chapter on the relevance of a reflective approach, named by Schön as ‘*Reflection*

²⁰ The 3 pilot interviews are reported on within the cohort of 20 interviews in chapters 5 and 6.

in Action', when applied to policymaking. Pettigrew (*op. cit.*) refers to Schön and the benefits of 'cycles of induction and deduction' when conducting social research.

Support for the application of reflection, for the present research, also exists within the specific field of Construction Management Research (CMR), within which research into CIP can be said to be located. Schweber (2015) suggests that, in the cross-disciplinary 'domain' of CMR, 'reflexivity' (*sic*) can in fact offer a means of reconciling methodological conflict arising from the intersection of disciplines with apparently contrasting methodological orientations. Schweber's 2015 paper followed on from an earlier paper addressing similar concerns around such conflict where the use of 'middle range theory' in CMR was proposed (Green and Schweber, 2008). Schweber's (2015) paper defined reflexivity as referring to:

'... explicit reflection on theoretical approaches deployed and their consequences for specific findings and to direct engagement with the substantive details of colleagues' findings and arguments.'

Schweber and Schön use the term reflexivity to describe both the sense of conscious reflection by the researcher on his/her own use of theory and method and also to express the idea of the sense of a continuous process of engagement with participants who therefore become more involved and active in the research: the researcher is no longer just an external observer and neither is the participant just the observed. Of these two aspects of reflexivity the present research has made extensive use of the former approach, yet, while the interpretivist positioning necessarily enables the false distinction between researcher and researched to be placed to one side, there has not (yet) been an opportunity to engage participants more fully in theory development. Therefore, to avoid potential confusion regarding the claimed scope of the research, rather than 'reflexivity' the term which is deployed to describe the first half of the meaning of the term is 'conscious reflection'.

An alternative approach, when attempting to integrate analysis emerging from different disciplines, is that of 'ambivalence' as proposed by Cairns (2008), whose paper on '*...theorizing the built environment*' was influenced by Aristotle's notion of '*practical wisdom*'. Cairn's 'ambivalence' asserted that '*value-rational*' practical knowledge should be added to epistemic and technical knowledge to support multiple simultaneous but contrasting views of the unit of analysis, without necessarily there being a resolution (*ibid.*:283).

Such ideas, as expressed by Schweber, Schön and Cairns, are helpful in indicating ways in which CMR and policy-oriented research can be addressed. However reflection, reflexivity and ambivalence may only suppress rather than fully address the positivist/interpretivist dichotomy: it would not be an exaggeration to suggest that these approaches, which compensate for or work around the risks of loss of coherence in methodology, are fundamentally about technique rather than philosophy (though Cairns does attempt to base his argument in a detailed philosophical approach).

In problem-oriented research, such as CMR and the present research there are multiple realities present, using Cairns' terminology (*op. cit.*:281) or 'multiple interpretations' shaped by subjects in relation to the same event (Schweber *op. cit.*: 845). These multiple realities can be driven by contrasting and conflicting interests and power (Cairns *op. cit.*:281 referred to Flyvbjerg). It seems feasible also that each actor brings their own unique set of knowledge and experience and that this also implies multiple realities. Both CMR and PE, as areas of

research which are problem-driven, must draw on evidence from a variety of academic disciplines based in different research communities with potentially conflicting beliefs, values and language or 'meaning'. Hence, the use of an interpretivist positioning of the present research needs to be augmented by use of conscious reflection on the part of the researcher at each stage of the research process.

4.4 Theory, models and frameworks

One theme of the present research is the suggestion that it might be possible to devise a framework, based on PEA thinking, with which to understand policy for construction. The process of research here, and by implication any framework, needs to enable the researcher, readers and potentially stakeholders to accommodate multiple realities and understandings about construction policy and the forces which shape it, as discussed in the preceding section. Any framework, ideally, should enable such multiple realities to be accommodated if not resolved.

Amidst this context of multiple realities and their consequences, it is necessary to concede that the scientific, engineering and technical aspects of policymaking can be crucial to the success of any individual policy for construction. The present research does not place such considerations on one side but neither are they central to the chosen task, which began from an observation of a policy gap (design versus implementation) which, persistent as it has been for some decades, does not seem to be technology-related but appears to be a problem of the policy process, or even of politics. The research therefore has concentrated on these latter aspects rather than the so-called technocratic half of policymaking (see section 1.3.1 above).

The question therefore remains as to what is meant by theory, or by its derivatives in the form of models and frameworks. As policy analysis the research seeks to identify and make greater use of social theory rather than scientific knowledge. What is sought is not a single integrating solution. Instead theory, models and frameworks are to be used to challenge assumptions and drive investigation. The use of theory in this way seems entirely consistent with the orientation of political economy itself as expressed in the phrase '*ever deepening set of questions*' used in description of PE by Weingast and Witmann (*op. cit.*:3). A similar positioning with respect to the use of theory, and specifically social theory, was recommended by Giddens (1984:326): namely that theory and the concepts to which it refers should not be allowed to dominate investigation nor be ignored but that instead they should be used as

'sensitizing devices' and '.....they may be useful for thinking about research problems and the interpretation of research results'.

In section 2.2 it was argued that the policy cycle, despite its many limitations, retains its usefulness as '*an excellent heuristic device*' and '*an important conceptual framework*' – in the words of Jann and Wegrich in Fischer *et al.* (2007:57,58). The policy cycle is but one example of Giddens' generalisation of the role of social theory. The anticipated PEA framework for understanding policy for construction would seem to be another.

4.5 Method

4.5.1 Research design

The subject of interest in the research is the process for the formation of policy for construction, while taking the broad view of the nature of construction industry. The idea of sector-level policy for the industry (namely, CIP) has been taken both as a specific example of policy for construction and also as an appropriate unit of analysis for research for two reasons: first, rather than research being immediately driven to focus only on a specific segment of the industry, or on a limited policy topic, the approach offers the possibility of an holistic and systemic view of policy for the industry; second, starting the process of analysis at the sector level is said by practitioners of PEA to be good practice (see Chapter 3). It can be added that the researcher's own prior experience in industry, interpreting and responding to a wide variety of policy challenges over several years, required an industry-wide perspective on policy rather than being limited to a limited set of policy areas. Therefore the proposed focus of research has meaning in terms of practice.

Neither CIP nor construction policy as a whole have a very identifiable or fixed existence. While CIP, as an example of construction policy, has periodically made an appearance (Latham, Egan Construction 2025 etc.) it does not have a stable definition – this is not necessarily a fault of policymakers, for example constantly changing technology requires a corresponding continuous adaptation in terms of policy. However, the somewhat elusive nature of the object of interest prevents a conventional case study approach from being adopted. Instead a cross-sectional research design is more appropriate which enables the initial intent of a comprehensive view of industry and policy to be maintained by taking a cross-section of sector-level policy as the source of data.

Sole reliance on existing documentary sources for data was considered – for example by examination of stakeholder submissions to parliamentary select committees. However, while such data exists in quantity which would permit an analysis to be carried out, there are two objections to such an approach. First, parties who submit such responses (which are often often well argued) would almost by definition be drawn from a relatively narrow band of actors – such as larger businesses, policy specialists and those already comfortable with working to influence policy in some way. Second, responses which are made on the public record will not necessarily reflect the genuine personal views of the contributor: they are more likely to represent a political calculation of what the contributor may say on behalf of the employer while maintaining a desired public image of constructive engagement.

Hence, while the research does make use of documentary sources of various types, it was decided to approach a cross-section of the industry actors and stakeholders as the primary source. This approach enabled views to be gathered not just from those likely to have been directly engaged in policy design but also those whose working life is based around addressing the end consequences of policy rather than policy design. More detail on who was approached, how they were invited to participate, and on the actual participants is provided in section 5.1. By engaging each participant in a one to one, confidential, interview it was

intended that a more open and reflective response by the participant would be more forthcoming than in an on-the-record response to a public consultation. Hence, the use of interviews in this way as the prime source of data was used to overcome the two stated objections to sole reliance on documentary sources, namely bias arising from limited categories of participant and distortion arising from loss of more personal, reflective, views. The extent to which there was nevertheless any residual bias is considered in Chapter 5 and 8.

4.5.2 Implementation

As indicated earlier (section 1.3.3) it was anticipated from an early stage that semi-structured interviews would be an obvious process by which to explore competing perceptions and motivations of people who are involved in some way with policy for construction. Indeed such a process is almost inevitable given also the selection of Political Economy Analysis as a theoretical approach with its prioritising of engagement with actors and stakeholders. However the generation of audio recording and transcriptions of a large number of actors gives rise to a problem of analysis and interpretation which will be considered in more depth in chapter 5.

Simultaneously with the generation of data through interviews, the researcher also became aware of a large and continually increasing body of primary and secondary sources associated with the sometimes dramatic developments affecting both construction and industrial policy in the period 2016 to 2019 (i.e. corresponding to the period of research), some of which has been discussed in chapter 2. Collectively these multiple sources represent important new primary and secondary data.

Hence, in order to consider the consequences of such a diversity of data (a significant part of which consists of people's opinions and perceptions rather than objective fact), it seems evident that a method of analysis and interpretation is required which enables not just application and testing of theory but which would also enable theory to some extent to evolve in the light of evidence becoming available. It was also concluded in chapter 3 that the utilisation of any framework for the first time is expected to lead to insight not just concerning the object of research but also concerning the methodology and framework itself, thus leading to further evolution of the framework. In terms of initial collation of data, and coding into categories, Nvivo software (version 12) was used as a means of both organising documentation and initial analysis. Using features within the software such as memo writing and other review features in Nvivo it was possible to maintain a reflective approach to interpretation of observations.

The use of Grounded Theory as an overarching method of theory development was considered. In particular, in the Construction Management literature Abductive Grounded Theory (AGT) has been identified (Rahmani and Leifels, 2018) as a means of using external theory as a basis for further theory development, by means of the interpretation of primary data of the type proposed here. The idea of abduction here is also that a degree of theory can be introduced early on into the analysis, that is from external sources, rather than rely on a process of pure induction of theory from the data.

An example of integration of interview, documentary and archive sources and analysis in CMR is Chmutina *et al.* (2016). This paper adopted an interpretative and inductive approach to a policy question in a built environment context (namely, '*unpacking the meaning of resilience*'). Grounded Theory is mentioned (once). Discourse analysis and coding with Nvivo is used but the paper makes no mention of AGT as such. However in practical terms the paper, and that of Rahmani and Leifels (*op. cit.*), do illustrate the kinds of techniques necessary to achieve what is proposed in the present research.

Based on these considerations – the need for flexibility in handling diverse resources, a method consistent with interpretivism and conscious reflection, and compatibility with both making use of existing theory and also then developing theory – it was therefore decided that an abductive approach would be adopted. While extensive coding of data was carried out and used to assist analysis, the deployment of a full Grounded Theory approach was not attempted. Further aspects of how the process of data collection, analysis and theory development was conducted are discussed in chapters 5 and 6.

4.6 The Interview Guide

It has been established that, for the present research, semi-structured interviews would be the source of most primary data. A preliminary list of themes for use in interview was presented in Figure 6 (section 3.7.2.2). The preliminary list was further developed into a guide for use in interviews. As a guide the list of questions was not intended to be used as a rigid agenda for each interview, but rather as a means to stimulate thought on different aspects of participants' lived experience. The guide did evolve slightly over time in response to reflection on the interview process and responses, as will be described in chapter 5. The final version of the guide is included in Appendix B.

Summary of Chapter 4

Methodology

Previous chapters have described the research problem as being the policy gap between intention and implementation which has been a recurring theme of construction policy over decades. Earlier chapters have also developed the evidence and argument for the use of a Political Economy approach and, specifically, the use of techniques which have become known as Political Economy Analysis. In this chapter (4) the nature of the epistemology which is associated with addressing the research problem has been explored, together with its implications for methodology.

Alternative research philosophies have been considered. The research endeavour has been characterised as one of policy analysis, which might indicate that an interpretivist approach is to be preferred. However a research philosophy is required which will enable the multi-disciplinary approach of Political Economy to be exploited. In addition, as the nature of the research is exploratory, in that it tests a first use of a certain theoretical approach (PEA) in understanding and potentially improving CIP, it is important that inter-disciplinary working can form part of the selected approach. It has been concluded that use of an interpretivist approach together with conscious reflection will meet the requirements of the research and is compatible with the researcher's own preferred way of working.

The principles influencing the research design were described. The subject of interest is construction policy. CIP, as a particular instance of construction policy, is used as the unit of analysis. PEA practice and literature supports the idea that, before research into a specific sub-sector or specialised policy field is conducted, analysis is first conducted at sector level. In this way an holistic and systemic view can be maintained. Such a wide field of interest means that a cross-sectional design of research is appropriate. The need to reduce the risk of bias in available data which might arise from reliance on pre-existing documentary sources, and the need to ensure an adequate cross-section of contributors, has prompted the choice of a semi-structured interviews with invited participants.

In earlier chapters PEA theory and practice were explored with a view to applying elements of these for use with policy for construction. While the principles of PEA have helped to inform the interview guide and create sensitivity to certain themes when interpreting interviews, they are not to be used as mechanistic devices of categorisation and prediction. An abductive approach, therefore, would seem to capture the essence of the research in that initial concepts are abducted from other domains of research (development economics) and during the course of data collection, analysis and interpretation, theory is allowed to evolve in order to maximise their relevance for present and future research into policy for construction. The nature of PEA theory and the potential framework were examined and it was concluded that they are heuristic devices which, in Giddens' words are '*useful for thinking about research problems and the interpretation of results*' (1984, *op. cit.*) rather than being an end in themselves.

5 Data Sources and Collection

Chapter highlights:

Participants – interviews – data preparation – use of other sources – coding – reflection on data collection methods: (capturing language and meaning – interview style – coding and context - impact of recent events on the data – the role of the interviewer)

Introduction

The preceding chapter described the methodology to be employed throughout the research process, based on the research objectives discussed in earlier chapters, and introduced the methods to be employed. The overall task can be characterised as one of policy analysis. As such the researcher cannot be considered as just an external observer and instead is an actor in the process of discovery, and interacts with others during the research process. Self-awareness of this role of the researcher is required and this is to be achieved primarily through conscious reflection, throughout the research process. Therefore chapter 5 seeks to show how the theoretical positioning of the research discussed in chapter 4 relates to the mechanics of data collection and observation prior to addressing data interpretation and analysis in subsequent chapters.

The chapter begins with a description of different aspects of data collection, including a discussion of recruitment of participants (sections 5.1-5.5). Next is an initial reflection on the merits and limitations of the method (5.6) insofar as such an intermediate review is relevant at this stage: this supports further reflection on the research process which is included in later chapters. Analysis of data and observations is addressed in the subsequent chapter (6).

5.1 Participants

A wide variety of participants was invited to take part, using multiple routes of contact. Finally, 20 interviews were conducted. To protect confidentiality, it is not appropriate to provide a highly detailed account of participants and their roles in the industry, however it is possible to summarise some general characteristics.

Participants represented a cross-section of the industry including industry managers (in contracting and in the supply chain), trade associations, a trade union, civil servants (with an interest in the industry), standards organisations, and others with a professional activity related to the industry. A minority (35%) of participants had job roles which included a substantial element related to policy matters, which might include speaking to policymakers at different levels and/or working within policy networks. Four (20%) were either past or present members

of the Construction Leadership Council (within the thesis a participant from within this group of four is referred to as a 'CLC member'). Six (30%) were female. Three (15%) had experienced periods of secondment by their employers to work within Government departments before returning to industry.

in terms of their workplace, nine (45%) were based in London. The majority (65%) had job roles which included responsibilities connected to either the UK or Great Britain. The remainder all had responsibilities connected to England as a whole. The majority were employed by larger organisations (65%), 10% worked for medium sized organisations and the remainder (25%) worked for smaller organisations²¹.

5.2 Interviews

All interviews were conducted in the period May 2017 to June 2019. Most interviews took 60-80 minutes. All interviews were transcribed by the researcher. A minimum of information was issued in advance of the interview, and this included an invitation to consider what the top '*three or four*' risks or challenges facing the industry were – in other words, the theme corresponding to the first substantive question in the interview guide (Appendix B).

Each interview ran its own course which reflected the personal experience and outlook of the participant. As time progressed, with growing interviewer experience, and deliberate avoidance of specialised terms where possible, the need to explain certain words decreased but did not disappear. (The implications of the choice of language and terminology are considered later in section 5.5.2.) Feedback from participants was constructive, and helped to improve the quality of interviews. Reflections on the interview process are included in section 5.5.

5.3 Data preparation

Great care was taken to capture each interview, in transcribed format, as accurately as possible. This extended to the development of a simple set of conventions for capturing, in transcribed form, aspects of speech and therefore meaning which might ordinarily be lost, such as where words were repeated, gaps in speech where the speaker is clearly reflecting, words are strongly stressed, or where one person interjects a short word or phrase (or indeed, laughs !) in the middle of speech by the other. Transcripts were then loaded into textual analysis software (Nvivo v. 12) and coded (for more on coding see section 5.4). Reflections on the data preparation process including transcription are presented in section 5.5.3.

²¹ Estimates of organisation size were made by the researcher, and categorised using the EU definition of size (European Commission, 2019): small businesses have a turnover of €10m or less, medium sized businesses have a turnover of €50m or less.

5.4 Coding of transcripts

Once transcriptions had been loaded into Nvivo, coding and analysis could begin. Without specific prior reference to the interview themes, but with an awareness of PEA theory, nodes were progressively created during the reading through of each transcript. Over time, with the coding of each transcript, further nodes and child nodes were added in order to capture the full range of content as far as practically possible. Typically therefore a single transcript was coded approximately 100 to 200 times using 30 to 40 nodes and child nodes, reflecting the richness of the data collated. Up to three levels of nodes were utilised (node, child node and child child node): any more would have led to increased difficulty in both consistency of coding and subsequent interpretation. The act of coding was found to be helpful in generating familiarity with content. For reflections on the coding process see section 5.5.4. The final list of codes used is shown in Appendix C.

5.5 Reflection on data collection methods

Introduction

Reflections on the research process in its entirety are included in later sections of this thesis, after results have been presented and analysed. However, consistent with the use of conscious reflection declared in chapter 4, this section (5.5) contains some initial remarks on aspects of the data collection process, insofar as they might support the explanation of the chosen method and the change it underwent during field research. Hence this section (5.5) is intended to facilitate the interpretation of observations to be presented in the next chapter (6).

5.5.1 Cohort of participants

In terms of the cohort's representativeness of the industry there are two general constraints which might be said to lead to bias. First, many more people were approached than eventually agreed to be interviewed. While the reasons for declining an invitation for interview are almost totally unknown, it is possible that there was a degree of self-selection whereby those who saw little or no relevance of 'policy' to their own working life (for example those with heavily operational roles) would be more likely to decline an invitation and, conversely, where those already very active in policy networks might immediately see the relevance of such research for them personally or for their organisation.

Secondly, smaller organisations (micro-businesses), and those working independently (the self-employed and members of the 'casualised' work force) are particularly challenging to engage with and yet are known to constitute a large segment of the construction workforce²². While to a degree several of the participants might be said to have the capacity to indirectly reflect the views of such members of the construction community, based on their professional experience, it is clear that the voices of very small businesses and the self-employed tend not to be represented here. Other groups which are not specifically represented among participants are clients, housebuilders, and not-for-profit organisations such as Housing Associations. The question of representation of these categories of stakeholders in policy discourse will be returned to in later chapters (section 6.2.6 and subsequently). Any apparent weakness in representation can be remedied to some degree by the extensive use which was made of secondary material in order both to triangulate observations and to interpret them.

5.5.2 Language and the use of the Interview Guide

The interview guide was introduced in sections 4.6. There are two reflections on the design and use of the guide which are worthy of comment at this stage, and both are related to the use of language. Language, in one form or another, is the obvious primary tool used throughout this research process. In particular it constitutes the means by which to capture the insight expressed by participants, but simultaneously its use also erects certain barriers to understanding and shaping meaning. What is being sought, in recording and interpreting the interviews, is the unique meaning which an individual participant associates with the language they use. In the words of Chilton (2004):

'Meaning is not always expressed in explicit form, nor indeed is it always possible to do so. It is important to remember that meaning is not 'contained' in words, nor is it a thing to be discovered, or uncovered; rather meaning is constructed by human minds on the basis of language (I/u), using language (L), together with massive amounts of 'background' knowledge.' (ibid.:61)²³

The same word can carry different meanings in different contexts, and when used by different people. This is a wider problem than that of incommensurability between academic disciplines (see section 3.7.1.2), and it potentially affects all kinds of discourse. PEA, as a cross-disciplinary domain open to the import of concepts from many disciplines, can be seen as being particularly vulnerable to these processes of capturing and communicating meaning.

These considerations are relevant both to the design and the use of the interview guide. The early version of the guide used concepts and words familiar to PEA specialists but which may

²² The self-employed alone are estimated to comprise 37% of the construction workforce (Rhodes, 2018), and 'over 90%' of companies in contracting employ fewer than 10 people (Business and Enterprise Committee, 2008:9).

²³ Chilton (*op. cit.*:16) distinguishes between the three different senses in which his work uses the word 'language': 'I/u' refers to language in use, or 'discourse'; 'L' refers to the 'human capacity for language' rather than any one form; the third sense is represented by any particular spoken language such as say English or German – denoted by 'language i'.

often simply not be comprehensible to non-specialists. In any event, the interview guide comprises themes which are to be explored, rather than specific questions which a participant is expected to answer with a polished conclusion. Hence over time, as the experience of the researcher developed, questions tended to be much more focussed around the experience of the participant rather than adhering to the phraseology of the guide.

The second consequence of use of language, with all its inevitable flaws, follows from the difference between the themes which are explored and documented during the interview stages and the themes of the PEA framework and the need to relate one to the other. For example, the understanding of structural context (namely, those aspects of context which are unlikely to change) is very important to PEA, as is the understanding of 'institutions' (again a word which carries multiple meanings – see Glossary). This difference between what might be termed user-friendly '*interview language*' and some of the language more likely to be used in later stages of interpretation has consequences for the sequence in which observations can be described, interpreted and analysed. Hence chapter 6 addresses observations and initial analysis whereas chapter 7 seeks to relate emerging findings to PEA theory.

In the light of such obstacles, it already seems that one apparent consequence of the use of PEA is a risk of failure to adequately communicate ideas and meaning in both directions between participant and interviewer, leading to conclusions which are less secure and perhaps less useful. The challenge is one of maintaining rigour, and consistency in analysis, while also being readily comprehensible. This is a risk rather than a fatal flaw, and has been implicitly recognised within the PEA community of writers and practitioners: for example Whaites (2017) has attempted to take some of the opacity out of the approach. The matter of communication will be addressed again in later chapters.

5.5.3 What was said ? – Transcription

The previous section (5.5.2) discussed the perils associated with the use of language, and how these might fundamentally influence the application of the interview guide in data collection and interpretation. There is also a less abstract process which may influence data collection and hence interpretation. This occurs as a result of the need to translate the interview recordings into transcripts, which form the basis for all subsequent analysis.

Transcription of the pilot interviews confirmed that most value would be obtained if the researcher continued to perform the transcription task rather than to delegate this task to others. A second benefit of the researcher performing this task is that confidentiality was preserved, and that participants could be reassured of this at any time prior to or after interview.

Nevertheless, despite the care taken, in very practical terms it became clear that transcription, however careful, can only ever be an interpretation of the discourse. The nuances of conversation can be captured but not to 100% all the time (e.g. tone, pitch and pauses are not readily reproduced in the written word yet may be associated with meaning) – and, of course, language itself is only a representation of meaning, it is not itself the meaning (Chilton, *op.cit.*:61). The transcriber is called upon constantly to make judgements regarding even the position of basic grammatical devices such as a comma or full stop. Hence the transcription

cannot carry the full meaning in the mind of the speaker, and is only ever an interpretation. Therefore there is a degree of subjectivity present not only in the interpretation of the transcripts, but also in that this subjectivity might also extend to the generation of the transcripts in the first place.

Of course, this awareness, stimulated as it was at an early stage of data collection, led to increased effort to capture meaning and to transcribe with care. To reconstruct meaning, attention must always be paid to the context of a remark. Yet the act of coding of text, so separating it into fragments, risks loss of meaning however accurate the transcript. Coding is therefore addressed in the next section (5.5.4).

5.5.4 Coding and its limitations

The coding process used was described earlier (section 5.4). Certain constraints in the interview process on capturing and interpreting meaning were identified in sections 5.5.2 and 5.5.3. This section (5.5.4) discusses two further aspects of the interpreting and coding of content: namely, coding consistency and also the risk of erosion of meaning linked to context.

5.5.4.1 Coding Consistency

The coding process was used first to describe the content of interviews and then to relate content to PEA themes. What was found to be surprising was that the same fragment of text could quite often be coded to three or even more individual nodes.

This potential for multiple coding seemed to have two causes. First, and most simply, a text fragment could sometimes carry a great deal of content with multiple distinct meanings which demanded to be acknowledged in distinct parts of the analysis (i.e. in the nodes). The second cause of multiple coding was that while PEA theory postulates a number of apparently distinct concepts or ideas helpful to analysis, in practice when an element of context is being described and coded it became clear that the PEA concepts are not necessarily distinct or rather that a piece of 'evidence' – for example a description of the industry as being 'risk-averse' - can be seen as indicative simultaneously of related aspects of the change process (in this case, does the fragment 'risk-averse' relate to historical legacy, agency, or institution *etc.*?).

Whatever the cause, it was determined that the maximum of three coding references per text fragment would capture sufficient multiple meanings, initially. The same text itself remains available anyway for further reference and interpretation if required, so the adoption of a limit of three codes does not permanently inhibit interpretation.

5.5.4.2 Erosion of context and meaning

The risk of loss of meaning arising from fragmenting of text during coding, and from the loss of context, has been referred to in sections 5.5.3. Even if the text fragments may consist of many scores of words in an attempt retain some of the context, the coding process potentially re-shapes meaning. To reduce these risks, it was decided to create a pdf file of each transcript and then to combine all 20 transcripts into a single, searchable, file to be used in parallel with the Nvivo process capabilities of search, memo making and comment. This approach was found to facilitate the searching across all transcripts, simultaneously, for individual themes and references and meant that the context of text fragments would not be diluted.

5.5.5 The influence of recent events on data and interpretation

A number of important events took place during the period of research (2016-19). Some of these events were relatively disruptive for the industry, and some of the consequences are still being worked out in policy terms in late 2019. The participants themselves, at the time of interview, often were only just beginning to understand what the implications for the industry might be. The topic therefore is referred to at this point as it is relevant to any consideration of how to interpret the data collected.

The more significant events, with an indication of timing, were as follows²⁴:

- The referendum on the potential exit of the UK from the European Union ('Brexit') and subsequent developments – beginning May 2016
- Change in government from Cameron to May in July 2016
- The blacklisting of construction employees was again in the news (referred to in Farmer, 2016:40 and by five participants).
- General election leading to a minority Conservative (May) government in June 2017. Amongst other things this led to the development of a new industrial strategy and a 'sector deal' for construction (HM Government, 2018a).
- Grenfell Tower fire – June 2017 (leading in 2018 to the Hackitt Review and recommendations for the future of the industry, which were accepted by Government in December 2018, and were the subject of a consultation in summer 2019)
- Data on mental health became available showing that more construction industry workers die annually through suicide than through site accidents, at rates well in excess of suicides in other industry sectors (Rowland, 2017)
- Financial collapse of major contractors such as Carillion and Interserve in 2018/19 leading to questioning of the Government's outsourcing policy

²⁴ The list of events is primarily concerned with influences on participants up to the point of interview, though clearly in most cases these external events and their consequences for the industry continue to evolve, up to the time of completion of the thesis and beyond.

- Increasing profitability for major housebuilders alongside scandals over payments to the senior executives of the same housebuilders, and amid reports of poor quality
- Failure by Prime Minister May to achieve parliamentary support for the Withdrawal Agreement Bill (Brexit) – March 2019
- Change in government from May to Johnson in summer 2019
- Continuing uncertainty surrounding Brexit (the second planned withdrawal date of 31 October 2019 was missed)
- Twin impacts of Brexit uncertainty on construction in general:
 - concerns regarding the short to long term impact on construction growth and labour resource
 - the short to medium term impact of Brexit uncertainty
- General Election called for 12 Dec 2019

In aggregate, these events mark an unusually volatile period for the political economy of the UK, for the construction sector and specifically for construction policy. Individually and collectively these events, unfolding as they did over the course of the interviewing and analysis phases, and therefore progressively becoming part of the life experience of all industry actors, may have influenced participants' views on the industry and hence their responses during interview. For example, at the time of interview not all participants would have been aware of the 2018 Hackitt Review recommendations (MHCLG, 2018). Such external events, and their later consequences in the period up to the end of 2019, may also have affected how responses were interpreted by the researcher. The interaction between such events and the way in which the research developed is also part of a broader consideration of the influence of timing and events on the research which will be addressed during analysis of observations, in later chapters.

5.5.6 The role of the interviewer

The way in which interview style evolved has been described in section 5.2 and 5.5.2. The interviewer strove to retain the position of a neutral observer. Ideally, as explained to some participants, the interviewer's role is one of saying as little as possible but enough to provoke thought and response by the participant. Periodically the interviewer used summary and feedback of his interpretation of the participant's statements to elicit confirmation or further reflection by the participant.

The interview then is very much a data sampling process even in terms of a participant's own views, which on some topics are not necessarily fixed or rigid, not least because the external context is also dynamic not static. On another day a different answer may have been offered. To view this positively, such potential for further idea development, arising out of engagement with actors, might be interpreted as evidence of PEA being a continuous process (Whaites, 2017) of idea development (ever-deepening questions).

(Further reflection on the role of the researcher is included in section 8.2.)

Summary of Chapter 5

Data Sources and Collection

This chapter (5) has described and reflected upon the data collection processes used in research. These processes have a direct bearing on the range, depth and quality of data and how that data should be interpreted. Initial reflections are included at this stage in the reporting process as they also have consequences, it is proposed, for any subsequent attempt to use a PEA approach, when aligned with the methodology described in Chapter 4. The method of recruitment of participants has been set out together with an indication, within the limits of confidentiality, of the roles played by the participants in relation to the construction industry. The approach to interviewing, transcription and coding has been discussed. An initial reflection on data collection and initial appraisal has been included, dealing with the cohort of participants, the interview, the use of language, transcription and coding of text, the possible influence of certain major events and finally the role of the interviewer. These reflections had consequences for how the present research evolved and how it was conducted, including the style of interviewing and how data has been analysed. Having completed this review of methods and data collection it is now possible to begin to report, in chapter 6, on observations and to begin the process of interpretation and analysis.

6 Observations and Initial Analysis

Chapter highlights:

Sequence of presentation – observations: (the major challenges – construction industry and policy – historical legacies – representation – potential for reform or change) – initial analysis (policy, construction and construction industrial policy – why bother?)

Introduction

The preceding chapters (4 and 5) described the data collection processes and introduced the approach to transcription and initial interpretation. Reflections on these processes and how they evolved during data collection were set out. Presented in Chapter 6 are the observations based on the collected data. At this stage the observations as far as possible were allowed to emerge from the data. The use of PEA theory in a more explicit way is addressed in chapter 7. The flow of the argument in is as follows:

- **section 6.1** is a brief discussion of the optimum sequence in which data, observations, analysis and theory should be introduced
- **section 6.2** presents initially relatively straightforward reporting of observations based on the collected data
- **section 6.3** includes triangulation of observations, where possible, with other information sources and the comparison of these observations with the concepts and guidance found in the literature on PEA, and with other relevant theory
- **section 6.3 and chapter 7** include development of increasingly higher levels of analysis, by means of reflection and comparison with existing literature, in order to address the research objectives, and to identify emerging findings concerning both CIP and the nature of PEA when applied to policy for construction. The latter aspect is dealt with in more depth in Chapter 7.

6.1 Sequence of presentation of observations and analysis

Within the research process, between data and the eventual findings, there seem to be five steps in all: namely data collection, observation shaping, interpretation, analysis and discussion. In practice for any given set of observations the analytical process is iterative in nature as emerging observations are challenged and the data are consulted again. Hence the five process stages are not completely separable. There are two main options for presentation and writing-up as a thesis: the theme-based option or the task-based. The former gives priority to the emerging themes and findings (working through the industry's major challenges, for example), whereas the latter prioritises the five nominal process steps (observation, interpretation, analysis *etc.*). After experimentation with presentational form it was decided

that the theme-based approach, which emphasises the substance of the findings rather than five process steps, would be of most value to a reader, even if the five steps continue to represent an underlying flow of thought. Hence, in chapters 6 to 9, the theme-based approach is prioritised.

6.2 Observations

6.2.1 General

After a number of interviews had been conducted it became clear that there was a general, if not a natural, tendency or flow of thought as follows:

- the major challenges facing the industry (theme 2 of the guide, Appendix B)
- the nature of the construction industry and policy for construction (theme 2)
- historical legacies (theme 4)
- aspects of change: influencers, barriers, promoters, implementation (themes 3, 5, 6, 9, 11, 12)
- are any groups under-represented in the policy process ? (theme 11)
- potential for reform or change (themes 13, 14)

This sequence was rarely observed precisely. More frequently a participant's thought process, even within the response to a single question, tended to cycle between different elements of these headings, with one thought flowing into another. Each interview followed its own pattern, accommodating the life-experience of the participant. Nevertheless, as a means of capturing and introducing the diverse content of interviews the above sequence of headings has been adopted in what follows.

6.2.2 The major challenges facing the industry

The question '*what are the major challenges?*' was posed in order to enable the subsequent discussion about policy to be grounded, for each participant, in their working experience, rather than necessarily to form the basis for an objective profile of the industry. The range of different 'challenges' mentioned was extensive (they are summarised in Figure 8). In addition some challenges themselves could be further subdivided. For example 'Brexit' was mentioned a number of times and was coded to 'Political-Legal' but could have been identified as a child node in its own right (often seen as exacerbating a skills crisis). Hence while the final node structure, which is included as Appendix C, already includes a degree of simplification, and it is possible to rationalise the variety of topics further, on the other hand to simplify further carries the risk of loss of meaning. – or, rather, impose a new meaning and interpretation which may not have been intended by the participant.

In the course of any one interview, some of the linkages between individual 'challenges', and the differences in participant perspectives, were explored further when prompted by questions later in the interview, which tended to provoke discussion on underlying causes and ultimately solutions. In this way some of the constraints on understanding and interpreting the answers to the first question can be seen as being at least partially overcome during later parts of the interview.

Despite all these limitations in method and interpretation, several observations concerning 'challenges' are worth noting. First, 'skills' was the leading – and possibly the dominant - concern, with some participants speaking in dramatic terms of shortages and crisis (sometimes consistent with the messaging of Farmer, 2016).

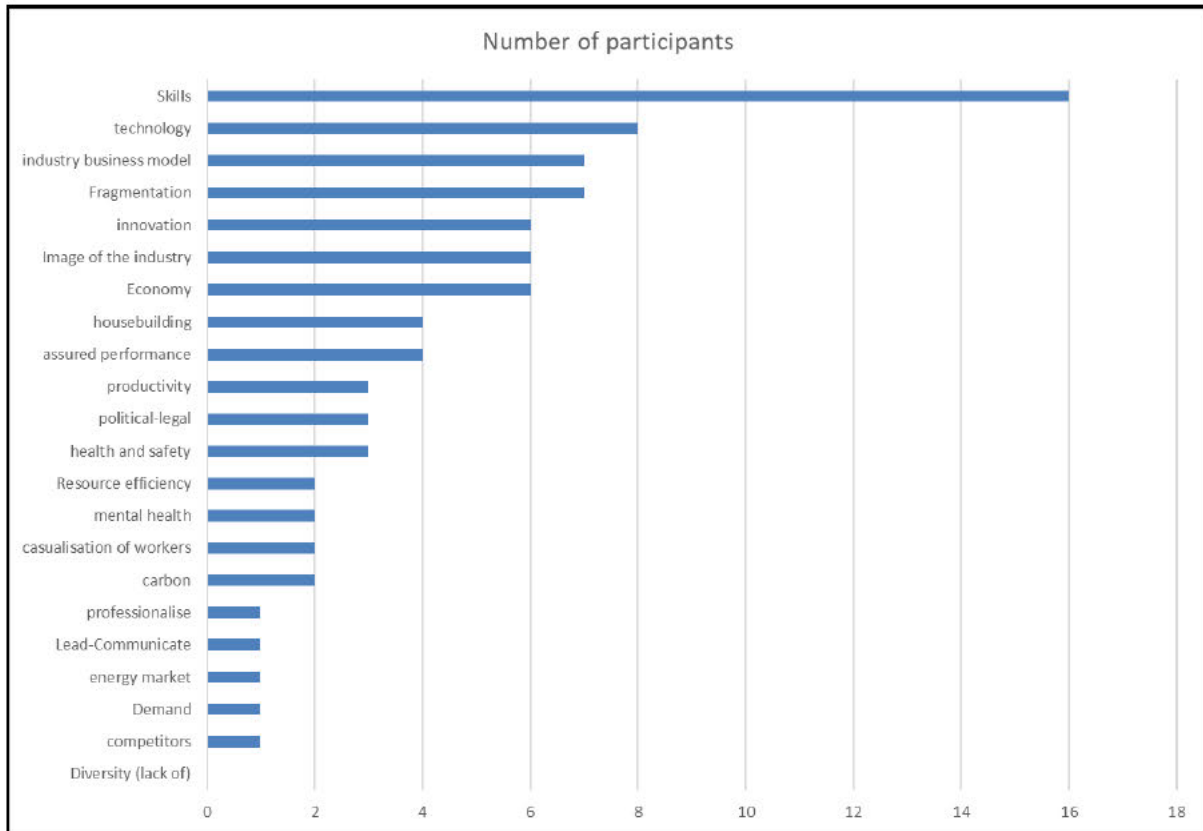
The next most frequently cited challenge was '*technology*', often because of the sense of change anticipated, and because it was sometimes seen as both a cause of and a possible solution to skills shortages; for example a participant employed by a major contractor, referred to driverless dump trucks, and robot-assisted bricklaying. Such technology may solve one kind of skills shortage by simultaneously creating a new one.

The third most frequently cited challenge was that of the '*industry business model*'. While interpretations of this varied between participants, they tended to share the sense that the model is flawed and is associated with negative features of the industry (risk aversion, aggressive practice regarding terms of payment, lack of investment in skills *etc.*).

The final observation to be made at this stage, given the variety of responses to the question about 'challenges', is the sense that there are distinct and significant differences between participants concerning the sets of challenges to be prioritised. Each participant can be seen as having their signature set of concerns. In the context of policy analysis and policymaking any such differences in perspective, and their underlying causes, may create obstacles to meaningful debate about policy and hence to the formation of effective policy. Subsequent interview questions began to shed further light on this aspect, as will be shown.

Figure 8: Challenges as perceived by participants

The length of each bar represents the number of participants who referred to any one of the named challenges.



6.2.3 The nature of the Construction Industry and policy for construction

Taking the first of these two related themes, participants were asked what they saw as the scope of the 'construction industry', and to establish what they thought the term meant. The most strikingly narrow concept was that proposed by the trade union official who preferred to include only those activities carried out 'within the hoarding' of the construction site. On the other hand this participant also had no difficulty in making a connection between minor construction works such as a domestic extension and large infrastructure work: the essence of 'construction' being that the physical workplace, perhaps uniquely among major industries, changes daily, with all that implies for work organisation including risks such as those affecting the safety of those on site.

At the other extreme were those who preferred a very broad definition of the industry, including all the allied professions of architecture, engineering and quantity surveying together with the supply chain including manufacturing and distribution: for example this was the case with two participants most closely associated with policymaking for construction at an industry level. Between these two extremes there was a view expressed that, in terms of the image of

construction in the eyes of a member of the public, impressions are formed at an early stage of life based on what is seen of construction at first hand. Such an early direct experience is more likely to be in a domestic setting and hence, thereafter, impressions arising from such minor works may be inextricably linked with subsequent feelings and assumptions about construction of whatever scale.

A frequently recurring theme was that participants stressed the diversity of both construction site activity (the end product, as it were) and of the range of professions, trades and supply chain activities which are to some extent associated with the industry. Compounding these two aspects of diversity, one participant stressed that, unlike many industry sectors, because the activity of construction is always carried out in a specific geographical place and this can potentially be anywhere in the country, local practices and cultures, and even building techniques, also vary. One simple illustration of this linkage to place is the delegation of powers in relation to building regulations to the devolved administrations (Scotland, Northern Ireland and Wales), and to some extent at an even more local level, which was mentioned by a policymaker.

Participants often saw this diversity of activity in itself as constituting a barrier to formulating an overarching 'Construction Industrial Policy'. For example one participant whose role brought them into contact with a wide range of different industry activities, often via a variety of different trade associations, characterised the situation as being one where there are many different '*tribes*' with which one must deal – each with its own set of intentions, history, beliefs, values and objectives. Another participant, whose job role included influencing working practice in the whole supply chain, felt strongly that 'clients' should be included within scope, though the participant also readily acknowledged that clients would tend not to take that position. While inclusion of the client was an exceptional view, it was indirectly supported by responses to later questions about which actors have influence (power) to change the way in which the industry operates. For example one participant, who was active in policy networks, felt strongly that clients, especially large and public sector clients, already use '*commissioning power*' to influence construction and that much more could be done: they cited the positive influence of the London 2012 Olympics build programme on the industry as an illustration.

Participants tended, unsurprisingly, to be influenced by their own position in the industry and their day to day responsibilities whether this may be housing, infrastructure, or contracting so while they were often prepared to accept a wider definition of scope as inevitable they were at the same time more comfortable with an initially narrower assumption about what they had a concern with or influence over: for example, a person whose role is associated with infrastructure tends not to think very often about work on domestic buildings and vice versa. This difference between broad and narrow is not a question of choosing between two alternatives: each of the narrower views is associated with a very different perspective and understanding, growing out from the day to day experience of the person in question and the mix of challenges which any one individual deals with on a regular basis. This observation echoes one of the top four challenges identified by participants, and indeed by many commentators on the industry, namely that of fragmentation (Egan, 1998; HM Government, 2013). Fragmentation, its causes and consequences, will be discussed in more detail later (section 7.1.1.3).

Moving to the second of the two related questions, concerning the relevance of a national policy for construction, a frequently expressed view was the recognition, despite the general

acceptance of a need to see construction as a broad set of activities, of the difficulties faced by anyone seeking to create coherent policy for such a diverse industry as a whole. The wider the scope of the industry selected by policymakers (for any proposed policy for the sector) the greater the barriers, of diversity and conflict in perspective, which will be encountered and which will need to be overcome. Exceptions where sector-wide policy was seen as important were Health and Safety legislation and terms of payment. But arguably these are generic industrial issues anyway rather than necessarily being specific to construction so do not in themselves necessarily require the existence of sector-level policy.

Therefore, instead of being enthusiastic about a sector-level policy as such, most participants tended to speak in terms of policy which might affect a specific sub-sector – say housing, or infrastructure. This seems to have been driven by the nature of a participant's specific role in the industry and hence by the more local concerns which a participant had on a day to day basis. Interest in the idea of Construction Industrial Policy increases with the breadth of the participant's interaction with the industry. So, on the one hand those working in the supply chain in relatively specialised businesses tended to feel quite remote from the concept of an overarching policy and out of necessity – and limited resources – they tend to focus on policy which has an immediate impact on their business or organisation. On the other hand those whose interaction was wide tended to have much greater awareness of the history of attempts at such policy and tended to support the idea of an overarching policy.

However, the challenges facing such policy are not just a question of awareness, resources and interest. It was striking that one of the people in government whose responsibilities are centred around industrial strategy for construction, and who, one would expect, would therefore be most involved with the idea of overarching and integrated policy for construction, felt that:

'There is not a coherent government construction policy no it doesn't exist'

The same participant felt that, despite the existence of a specific Government Strategy for Construction covering the public sector (Infrastructure and Projects Authority, 2016a), as well as Construction 2025 (HM Government, 2013) and the sector deal (HM Government, 2018a) :

'.....well the public sector is like the private sector, you have a very large number of clients who are individual actors with their own priorities and their own budgets who spend money to deliver their own objectives... So there is a v....quite limited amount of joining up...(ok).. I mean that's not that we don't talk to each other.... we do... but to what extent do we have a really coordinated policyI couldn't say that we do on the majority of issues' [Note: interviewer's words within the quotation are shown in parenthesis (), see 'Note on Style' preceding chapter 1.]

The participant here was stressing the challenges facing an actor wishing to formulate a fully integrated strategy or policy for construction across the public sector (i.e. not just central government, with its different centres of power across the Ministries, but also all other parts including local government and executive agencies). The wider the scope selected for 'Construction' the larger the numbers of groups and actors who will be affected, and the more complex the network of power interactions there will be between actors. Within central government, let alone in the public sector as a whole or across industry itself, there is no single or dominant source of authority for such policy. The problem is less one of whether such a

policy would be helpful but simply whether in the case of construction, given its size and diversity, it is even feasible to formulate and implement the concept in anything other than a piecemeal way. These considerations provoke questions regarding the purpose of past and future attempts at shaping CIP, and who benefits from them – which are very much questions of Political Economy, and which will be returned to later (section 6.3).

From the observations in this section it can be inferred that a person's role (and that of their employer) in the industry inevitably shapes their view of the scope of the industry and also shapes the kind of policy in which they might be interested. Furthermore, there is likely to be a constant interplay between all of these elements. Hence the Trade Union official is most interested in workplace safety and workplace conditions, and so – time always being limited – tends, in terms of scope, to limit interest in the industry to activities '*within the hoarding*', and, in terms of policy for construction, to risks created by an ever-changing workplace and to casualisation of the workforce. This may be a case of structure and agency, that is - over time - the structure of an actor's environment tends to shape their agency (in the current case, in connection with policy) but that agency in turn influences and shapes structure (in this case, influences the way policy evolves and shapes the industry) in a continuous feedback loop (Harris, 2013; Acosta and Pettit, 2013). Interwoven with the sense that multiple perspectives and interests represent constraints on what is feasible (for policy) is the observation of the fragmentation of the industry. Yet while uniformity might be helpful to facilitate policymaking, fragmentation may also either be inevitable or, sometimes, have a favourable effect.

These issues will be returned to later in the analysis. However at this point, given the absence of any easily achieved formulation for the composition of the industry, one also needs to ask what purpose is achieved by having Construction Industrial Policy in the first place, or in having a policy for the sector as a whole or at least for large parts of it. Judging from the long history of attempts at formulating such policy, and the extent to which industry and other stakeholders have frequently actively engaged with it, there does seem to be a demand for it, for whatever reason – or at least a hope that somehow a solution is both required and will be found. Whose interests does such repeated and often intense activity serve? The frequency of attempts at formulating a comprehensive CIP in the face of fundamental difficulties in the way of defining scope, and the low probability of successful implementation suggest that there must be factors driving interest in the idea which go beyond the nominal purpose.

6.2.4 Historical Legacies

Within the interview guide there was a specific question on historical legacies. In addition, over the course of most interviews references to significant past events were made, in connection with different interview themes. Both categories of reference to legacies were captured through the coding process. All answers were unprompted (that is, no list of candidate legacies was offered to participants). The more frequently mentioned, or more significant, historical legacies which were offered by participants as influencing the construction industry today were:

Generally: One participant suggested that for an event or trend in the past to constitute a powerful historical legacy with lasting impact on the present, there needed to be a sense of an impact on the public mind and so they considered that such legacies are:

'...things that have reached the national consciousness rather than just the industry's...'

The same person went on to describe a number of such events. While some of the events listed below fall into this category of major importance, the definition though useful in itself (partly because there has unfortunately been no shortage of such events) has not been used exclusively in order that other significant legacy events can be considered.

The 'boom-bust' nature of economic cycles and their impact on the construction industry in particular. Four participants stressed the importance of this legacy. Participants differed however to some degree concerning the consequences for the industry arising from the same legacy. One participant linked this with low profit margins among contractors and reluctance to invest, especially in innovation. This participant seemed implicitly to link the damaging effects of the boom/bust cycle to the idea of a flawed business model. Another participant, from the supply chain, expanded on this observation and pointed out that in the economic crisis of 2008:

'... the housebuilding market fell by nearly 50 per cent and that leaves a lasting memory in people's minds and it makes some businesses some housebuilders quite risk averse and makes them behave in a certain way such as subcontracting so they can be more flexible and people start to believe there is a housebuilding cycle and they manage their overheads to the bottom level of the cycle and then try and accelerate contracting to the top end of the cycle. Which has an impact on, and a legacy impact on innovation and on change because you're so busy adjusting to a market that swings so quickly.'

This participant therefore made a connection between the 'legacy' of boom/bust, the beliefs that actors adopt concerning the need to be ready for such cycles of activity, and the business model which emerges as a consequence (minimise overheads, reliance on subcontracting, minimise investment in innovation and skills, attitude to change etc.).

A third participant, associated with the provision of infrastructure, had a parallel interpretation regarding the impact on major contractors and infrastructure projects, albeit with slightly different timing: the economic downturn of '2010-2012' was seen as having a continuing impact on the industry (especially in supplier failures, see also below regarding 'PFI and Business Model') and created a conflict between on the one hand the earlier received wisdom and intent regarding partnering, quality and 'lean' construction and, on the other hand, the new battle to survive in the age of austerity and cost-cutting.

A fourth participant, a policymaker, also saw '*cyclical investment*' and boom-bust as a root cause of many of the industry's ills leading to a flawed business model:

'I think that the main historical legacy that we struggle with is the structure of the industry which has been.... which has resulted from the cyclical nature of construction investment. I mean that is unfortunately a fairly pernicious legacy and it's driven all sorts of bad practices and underinvestment by the industry (yeh) so whether it's contractual and payment practices which are about cash hoarding or whether it's about firms not being willing to train people or not willing to invest in R&D and adopt new technologies and techniques erm I think you can trace a lot of these problems to the business model for the sector and that that's the legacy of the history of the sector being very cyclical and having big booms and followed by big busts.'

This contribution therefore makes a strong causative link between approximately six individual 'challenges' (boom-bust, payment practices, R&D, innovation, skills, business model).

Critical events associated with construction: While change in the industry may have occurred in the past for a variety of reasons, there was a sense of a pattern of one-off events associated with construction failure, sometimes with tragic consequences which have also left their mark on the industry itself, typically leading to change in working practice: Ronan Point 1968, Avonmouth gantry collapse 1999, and the Grenfell Tower fire of 2017. These events fall into the characterisation mentioned earlier, where they have in some way entered the consciousness of the public at the time, not just that of the industry, leading to a necessity for a policy response.

Safety, accidents and the Prescott effect: Construction work on site has long been recognised as one of the more accident-prone trades so it is no surprise that safety, and more accurately, '*health and safety*' featured in responses. However one aspect of this was that several participants were very clear that a very significant event with long term and favourable consequences was the ultimatum announced in 2001 by the then Deputy Prime Minister John Prescott that the construction industry must reduce accident rates (Turner and Whitelaw, 2001). There had been 92 fatalities in the industry in the last eight months of 2000 alone and, in apparent response to Prescott's threats, the industry committed to a 10% year on year reduction and a two thirds reduction by 2010 (*ibid.*).

Significantly, the Construction Industry Council (CIC) also recently supported the idea of the positive impact and success of the 2001 event in helping to put health and safety at the top of the agenda right up to the present time, claiming that there was a 65% reduction in fatalities in the subsequent 10 years (Smith Institute, 2019). Clearly, the historic track record of construction on safety forms part of the legacy which affects practice and perception of the industry today. Alongside this, while the Prescott ultimatum is of interest in its continuing impact today within its own terms of improved safety, it is also of interest as an example of effective policymaking, albeit not belonging within the frame of conventional or formal policy. In the sense that Prescott was faced with a crisis, which the public was becoming aware of, it is also an example of the

'burning platform' approach to policymaking and change²⁵. More can be learnt from the affair and it will be referred to again in several parts of this thesis.

Events leading to sustainability becoming prioritised: One participant felt that for infrastructure projects at least:

'... things like the Newbury bypass and the Manchester airport protests back in the 90s these are these are things that fundamentally changed the way that we consider sustainability...'

Again, this kind of link between legacy event and change in practice in the industry seems to fall into the category of those events which have penetrated public consciousness, and not just that of the industry. The sense is that such events force change on the industry and so the need for change might be said to have already existed but was not sufficiently recognised by the industry.

Labour blacklisting, and operation of cartels. These two legacy features are grouped together because they both can be associated with quality of governance within the industry which is a subsequent interview theme. There was some disagreement about the extent to which such negative practices were still of significance today. The events referred to took place within the past 10-20 years so are well within the working lifetime of many in the industry today. Some relatively senior figures interviewed tended to defend the industry against accusations of low standards of conduct at the present time. Others were much more critical of current performance. Certainly the difference in views illustrates the problem with any attempt to characterise the industry, in all its size and diversity, in any simple way. However in terms of legacy, at the least such past events may well have a residual effect on the way the industry is perceived by others, even if some of the more extreme examples occur less frequently.

The London 2012 Olympics was mentioned by six participants as having left a positive legacy in a number of respects including innovation, safety, the ability of the client to influence change, and potential learning. Yet there was some scepticism concerning its longer-term impact on the wider industry.

The 'Green Deal was a massive flop', according to one participant. As an example of an outcome, and failure, of construction policy several participants mentioned Green Deal. Another participant called the Green Deal '*an outrageous failure*'. Several other participants referred to it in negative terms. The details deserve closer attention than can be afforded here (for a 'post-mortem' see Rosenow and Eyre, 2016). However the fact that a great deal of joint industry-government effort was dedicated to preparation for the Green Deal, mainly under the Coalition government of 2010-2015, yet with a minimal take-up among householders and subsequent abandonment by the Cameron government of post-2015, has undoubtedly left a significant legacy. If nothing else it is an example of the sheer difficulty, even in a relatively focussed and limited

²⁵ The idea that those leading change tend to invoke a 'burning platform' narrative, or equivalent metaphor, in order to instigate change is a common one. In construction an example is Farmer, (2016) whose report is titled 'Modernise or Die' and uses the analogy of a sick patient.

area of policy, of designing and successfully implementing policy. Again in the words of a participant who had worked on aspects of the Green Deal at the time:

'so getting government to do anything now around renovation of buildings they remember, they remember it, it's a bit of a poisoned chalice so they don't want to do anything at the moment so they're scared....'

On the other hand another participant, active in policy networks, felt that the appetite from industry and other stakeholders for engaging in policy collaboration in connection with home energy efficiency continued, despite the legacy of Green Deal failure, and mentioned specifically work on a new approach called Each Home Counts (Bonfield, 2016).

PFI/PPP and the business model of major contractors: One participant, from the supply chain, felt that the PFI initiative, while helping in the early years to achieve approval for many capital projects which might otherwise have struggled for support, has left a legacy in terms of a number of public buildings being associated with high running costs which

'...has put [the public sector] off PFI'

resulting in *'....in a situation where there's a lot of schools that need to be built and hospitals that need to be built or changed or improved which will take longer to do'*

The financial collapse of Carillion and Interserve, both of which were mentioned by participants, and the struggles of others such as Kier, all of which took place within the timeframe of the present research, have served as a dramatic challenge to previous policy assumptions around outsourcing and financing of public sector projects (Plimmer, 2018) .

Diversity of the workforce: This was mentioned by relatively few participants even though 30% of participants were female. While acknowledging that the issue is recognised within the industry and that *'efforts are being made'* to change, one participant (female) who saw diversity as a continuing issue in the industry also mentioned diversity in part-answer to the later questions concerning who benefits from activity in the sector – namely, the *'able-bodied white male'*. Diversity deserves inclusion under 'legacy' in that the present lack of it (in terms of gender, ethnicity, disability *etc.*) would seem to be a manifestation of a long-term feature of the industry, and may also be symptomatic of poor image and recruitment difficulties – see HM Government (2013:42) (The general challenge of 'Skills' was referred to in section 6.2.2.)

Previous attempts to change the industry. Several participants, from different parts of the industry referred to previous attempts to reform the sector (Latham and Egan in particular were mentioned but also 'Construction 2025' and Farmer 2016). Across all participants the depth of familiarity with such attempts at reform varied considerably. Yet, even though some participants could not name individual reports or strategies, there was a general sense that there had been numerous attempts, and that these

typically failed to achieve substantial change. While most participants supported the idea that reform and change across the industry is necessary and probably urgent, there was little support for the idea that a grand industrial strategy or policy was going to be the way it would be achieved, based on experience in the past. Despite this general sense of unfulfilled past strategies, some did retain hope: one participant strongly supported the idea that the case for change is becoming ever more compelling, and in doing so referred to Farmer's sick patient analogy (*'change or die'* in Farmer 2016:69). One policymaker defended the favourable impact of *'the three big steps'* of *'Latham, Egan, Construction 2025...'* while accepting that change *'... doesn't happen fast'*. Another participant, associated with the infrastructure part of the industry, held a similar view, namely while recognising the very imperfect implementation of such past attempts at reform also felt that there had been *'iterative change in the industry over time'*.

Perhaps the problem here is in part an issue of heightened expectations, couched in language of missionary zeal by the advocates and champions of change seeking to engage the interests and commitment of industry actors, stakeholders and budget-holders. Examples of zealous language can even be seen in the titles given to landmark reports such as *'Never waste a good crisis'* (Wolstenholme, 2009) or *'Modernise or Die'* (Farmer, *op. cit.*). The evangelical tone continues in the reports themselves: *'We will not achieve our vision or meet our ambition for 2025 without radical, transformational change.'* (HM Government, 2013:25).

Such dramatic language may, in the modern age, be a necessary part of political discourse in order for any major new proposed policy to attract attention, stakeholder consent and hence political support for change. On the other hand, there may be a price to pay for achieving a place on the political agenda in this way: namely, not only a compounding of the perception among the public and others of a chronic condition of *'illness'* in the sector (see Murray and Langford 2003:201, referred to above in section 1.2) but also the simultaneous raising of expectations that a targeted cure or course of treatment for the condition has been identified and will be put in place which will fix the problem. If the chosen area of policy is sufficiently precise and modest then such an approach may be credible, and may just be feasible. Yet, the wider the scope, and more complex the policy area and interactions – such as has been discussed above in the case of CIP and sector-level policy – then the chances of comprehensive delivery in the terms chosen by the policy champions, namely of the new cure to a chronic illness, seem correspondingly slim.

Yet, despite these obstacles, in the case of construction the attempts at reform and change have continued with further attempts at Industrial Policy since the coalition government of 2010-2015 (including the Sector Deal for Construction in the May administration of 2017-18, HMG, 2018). It would seem that there are forces at work beyond those to be found amongst the industry itself, or amongst its immediate stakeholders.

One participant, an engineer, expressed an alternative view to the generally more compliant and accepting approach to the idea of CIP of the majority. This was that the

vast bulk of the industry – especially those small and micro-businesses working with local clients on local projects of which a large part of the industry is comprised – typically was left remote from and even possibly untouched by the efforts of policymakers, and of others, to devise grand programmes of change. The example was given of Building Information Modelling (BIM), which has been a very specific aspect of recent change initiatives leading to, for example, a mandatory requirement for its use with larger public sector projects. BIM, as a part of digital engineering, an enabler of offsite manufacturing, and of ‘Digital Built Britain’, is conventionally seen as a key technology (HM Government, 2015a). Yet, according to this participant BIM is often, at least so far, of marginal interest to small local businesses, which form a large part of the industry, and hence the grand Construction Industrial Policy of which BIM is currently an integral part is of a similar lack of importance – on a day to day basis – for this group. Another participant, who worked for a successful medium-sized firm in the supply chain operating nationally, also saw a lack of relevance of BIM at the current time. So the lack of penetration of BIM is not just a matter for micro and small businesses. By extension, it is possible that other orthodox views about compelling need for change in certain policy areas may also be lacking in purchase and engagement outside sector policy networks.

To summarise, the legacy of previous attempts at reform and policy for the sector is a mixed set of perceptions around the validity and impact of CIP. While many accept the need for sector policy and strategy in principle, few if any are enthusiastic about its future potential. If so, then the question arises as to why so much effort has periodically been applied in forming CIP and who benefits: these questions will be returned to later in the analysis.

6.2.5 Aspects of change

Introduction

The idea of ‘change’ is not directly a major theme of the interview guide, yet it is related to many individual themes in that it is the purpose behind much of policy and policymaking. During coding it was found helpful to introduce a distinct code for change along with several child nodes (see Appendix C). It is considered that this is consistent with the principles of the PEA model, the visualisation of which implies that change and its enablers and barriers in any given context are at the heart of the theory (see section 3.7). Indeed ‘Drivers of Change’ is the name adopted for one particular version of PEA by the UK’s DFID (Mcloughlin, 2014).

Two Theories of Change

Some of the observations to be referred to in this section have already begun to emerge from the preceding section covering ‘Historical Legacies’. Probably the most important of these is the well-recognised extended family of reforms the most prominent members of which arguably are Latham, Egan, Construction 2025, the Sector Deal of 2017/18 and perhaps the Farmer Review of 2016.

However there is a distinction to be drawn between the ambitious attempts at comprehensive policymaking at sector level, which is the essential reference point for this thesis, and more piecemeal or topic-based policymaking – even though the latter may be far from modest in intended impact and may be targeted at a large sub-sector of construction such as, say, housing. Both levels of policymaking can be driven by a ‘burning platform’ rationale but arguably the latter grouping may be more likely to succeed through having been formed within a less complex policy context, for reasons developed in earlier sections (see section 6.2.3).

One of the historical legacies identified (section 6.2.4) was the apparently enduring effect of the Prescott ultimatum of 2001. Relevant and striking as it is in terms of an apparently clear and sustained impact (‘.. *a really big inflection point for change in the industry...*’ according to one participant), in a way it is exceptional as an example of a big-bang change apparently led by a policymaker. The same participant, who was associated with the infrastructure sector, felt that most change in the industry is gradual with only the 2016 mandate for the use of BIM level 2 in public sector projects to rival Prescott and possibly in future the intention, announced at the time of the 2017 Autumn Budget, of ‘*a presumption in favour of offsite manufacturing in public sector projects*’ (HM Government, 2018a). A degree of scepticism was expressed earlier (section 6.2.4) regarding the tendency on the part of industry policymakers to use the ‘burning platform’ or ‘sick patient’ context of change in policy discourse. It may be a technique which is over-used by policy champions. On the other hand the Grenfell Tower tragedy of 2017 was referred to by several participants as an example of a major crisis forcing overdue change on the industry. The recommendations by Dame Judith Hackitt, who brings an outsider’s view of the industry, have been adopted in principle by Government and are expected to mandate change in many aspects of the way buildings are designed, built and maintained (MHCLG, 2019).

Therefore it is possible to infer that there are at least two competing theories of change, and policymaking, present in the minds of industry actors. One is the conventional, considered, but slow and possibly incremental process typified by the family of reports and attempts at change such as Latham and Egan. As discussed earlier (section 6.2.4), there was a general acceptance by participants that such attempts are necessary and perhaps inevitable, but some scepticism that they can deliver on their promise of, say, comprehensive ‘*transformation*’ (HM Government, 2013). In addition, at the level of specific policy topics such as building regulations which also fall into the same category of a more considered and strategic approach, policymaking can be a more predictable pro-active process with relatively well-defined objectives, which was the view expressed by one participant familiar with the area. While the idea of the policy cycle as a literal representation of policymaking has been discredited (as discussed in section 2.2), the policy cycle concept does seem to share with this first theory of change within the industry some features such as a relatively organised, considered and relatively rational process.

The alternative theory of change is borne of experiences like the Prescott ultimatum and Grenfell and is linked to the idea that the industry is complex, its culture is one of tradition and resistance to change, and hence a major shock or crisis is needed to effect rapid and substantial change. One participant, a policymaker, drew a distinction between *what* major projects get approved (a deliberate, often political, decision) and *how* construction is carried out in that crises such as Grenfell often drive changes in the industry:

'I think in terms of how it's done comes as result of crises and in response to changes that are found to..., changes that need to happen if that makes sense'

Such a change may well have been one which has been championed by certain actors for some time but it has needed a crisis to occur before the policy landscape can move. This is not unlike the 'garbage can' theory of policy (namely: policy problems, solutions and champions may have all been present for some time rattling around in the garbage can, to no effect, but then some kind of major event causes them to mesh together resulting in policy progress – Cohen *et al.*, 1972). Punctuated Equilibrium Theory (PET) also has relevance to this idea of long periods of policy stability ('equilibrium') interrupted by sudden step changes ('punctuations') once the growing pressure for change finally overcomes resistance (Baumgartner *et al.*, 2009). (These and other policy models are described in Appendix A.) See also Buse (2008) who refers to Downs' (1972) view that: *'...a dramatic event is the decisive factor in putting an issue on the policy agenda'* (emphasis is that of Buse). Buse considered Downs' view²⁶ as somewhat of an exaggeration, but agreed that the role of the unforeseen event in policy agenda-setting points to the role of chance rather than to the sense that this kind of crisis-driven policymaking is something which can be managed. The evidence from participants also suggests that those wishing to champion change in the industry recognise the value of a sense of crisis in getting policy onto the agenda (indeed the title *'Never waste a good crisis'* was used for Wolstenholme's report of 2009), but that the hand may sometimes be overplayed if the sense of crisis is not shared by others or is not real, leading to a risk of scepticism and cynicism on the part of those outside the policy networks (the problem of crying 'wolf!').

Government processes

There was considerable variation amongst participants as far as experience of engagement with Government is concerned. At least five participants had experience inside Government departments. Conversely, several participants could be placed in a category of distant observers of the workings of Government. Many others had experience of working with policymakers on several different policy areas. Even participants from the first of the three categories (who might be called the 'insiders') were prepared to be surprisingly challenging concerning the workings of policy and change processes of which they had in some way been part.

An important observation was made by one experienced policymaker that

'...the civil service is very focussed on ministerial announcements and being able to get the minister to announce that something's happening, and that's what they do....'

The same participant and another, who had experience of working with policymakers, went on to contrast the interest of ministers in announcement of policy (that is, where they can be seen in public to be active) with the relative lack of interest in implementation and policy review:

²⁶ Downs' paper was written from an American perspective and was an attempt to assess the longevity of the environmental issue as a driver of policy. His idea of cycles of ephemeral public interest in any one policy issue may be seen as being even more relevant in the age of social media.

'...Government's good at policy it's crap at implementation it really is..... so there's no mechanism for measurement and follow-up and holding to account' (a policymaker)

'I think one of the biggest weaknesses in, at the moment, is the review of how did it actually work. I really don't think governments want to do that' (a collaborator with policymakers)

The agency of ministers was also questioned by other participants. A number of participants were clear that the rate of change (or churn) of ministers who are responsible in some way for the sector was very high and that this represents a risk of instability in policymaking as ministers are replaced or portfolios are re-organised. The churn of ministers with responsibility for housing (at MHCLG, and its predecessors) was mentioned as being a particular problem in that, while there is nominally a clear accountability in relation to this specific sub-sector of construction, there have been frequent changes in minister over many years. At BEIS, the construction sector has tended to fall within the remit of a minister charged with multiple other roles (in itself a potential undermining of the capacity of the policymaking process) and has also been subject to frequent change.

Starting from this sense of churn among ministers it is perhaps not surprising that there was some scepticism about the role and impact of ministers in terms of hands-on policymaking, expressed by one participant who worked for a trade association with frequent contact with Government:

'...we very rarely seek meetings with ministers because we don't see them as the primary influencer for policy in our sector it's the civil servants that sit behind them that really make the difference...'

Certainly churn of ministers, their supporting civil servants, and of policy itself, has become a cause for concern in recent years for its damaging effect on policymaking (Norris and Adam, 2017). Churn is a problem which is not unique to construction and it does create difficulties for all those outside government who wish to engage with policymakers. In fact Norris and Adam highlighted two areas as negative exemplars of the effects of churn both of which happen to be also of high relevance to the present research: namely Further Education (and therefore vocational skills such as those relevant to construction sites) and Industrial Strategy itself (*ibid.*).

Another barrier in the way of engagement of business and other stakeholders with policymakers in government was remarked upon by a participant from the supply chain: over the long period of austerity which followed the 2008 economic crisis, resources within government, and even within arm's length agencies with some of whom the participant works, have become much reduced and, in particular, technical resources able to engage in informed debate with stakeholders have suffered.

The interview guide, theme 3, includes a question about how specific policy topics become prioritised. Agenda-setting for policy is an area which has received a lot of attention from political scientists. For construction itself one participant, experienced at working with policymakers, remarked:

'Things float to the top when they start to become a pain in the arse for government. So when ministers start to getting lots of letters of complaint, so that's typical in the domestic sector you know.... when suddenly ministers are being bombarded...'

Summary (of the theme 'Aspects of Change')

This discussion of the way in which change within the industry tends to occur, at least within a UK context, has highlighted evidence from participants' personal experience, that there appear to be certain observable patterns. Secondary sources tend to confirm that these patterns are not unique to construction, though construction (and industrial policy generically) may be more vulnerable to some of the negative features than other sectors. Furthermore, such features can often be recognised as being associated with sources and models in common use in political science. However political science models often seem to focus on emerging and repeating patterns rather than causation: such models can help to refine a description but tend not to explain the phenomena. In terms of a PEA perspective, such observed patterns may be categorised as institutions (see Glossary) rather than underlying cause or structure. The more searching stage of analysis is addressed in chapter 7.

6.2.6 Representation, communication and influence

A participant with a trades union role described how, in recent years under Conservative-led governments, Unions have tended to be absent from discourse with Government on policy for construction, though there was limited involvement in the lead up to Construction 2025: there was Union representation on the Construction Industry Strategic Advisory Group (HM Government, 2013). On the other hand, according to the same participant, engagement with parliament by Unions is much more evident while there is a Conservative government. Parliament represents an alternative route for advocacy and lobbying.

Participants from an SME background observed that smaller businesses tend not to participate in policy debate – perhaps mainly because of lack of resources to do so, though nominally there are avenues for engagement through trade associations. One participant, from the supply chain, was active in their trade association which was in turn linked to a larger grouping much more active in policy networks (BuildUK). For this participant the larger group has become more helpful as a voice for the larger actors (e.g. the main contractors) rather than for smaller, often very specialised, sub-sectors and the businesses which work within them.

The large cohort of self-employed workers in the industry, it seems likely, are even less well represented than either employees (who may be in Unions) or small businesses. The participant with a trade union role felt that one of the biggest problems in the industry is casualisation of the workforce on the construction site leading to difficulties in communication. A similar point was made by a participant with a health and safety role in a major contractor, who felt that the nature of the modern supply chain and the common practice of highly mobile, temporary, workforces on site working in rapid succession for a number of different principal contractors was a barrier to building an enduring understanding between site management and others working on site. Such barriers against the building of a workplace culture,

surrounding even the relatively basic needs of safety on site, are likely to be intensified when far less tangible matters related to policy for the sector are at stake.

While certain sub-sectors such as infrastructure have a small number of large and hence influential clients these differ from other sub-sectors such as housebuilding where some feel the voice of the client, in the form of the homeowner or occupier, is effectively absent. One factor which influences the leverage of the client's voice in different sectors, is the frequency with which any one client interacts with the industry as supplier, say for a project. One participant felt that, for many in the population, buying from the industry is a '*distress purchase*' only carried out when the client is driven to it. Lying at the other extreme are the infrastructure sub-sectors with a relatively continuous programme of expenditure (hence the idea of the 'pipeline' of projects: Infrastructure and Projects Authority, 2016b) on behalf of a relatively small group of repeat clients (Highways Agency, Network Rail *etc.*). The same participant observed that between these extremes there is the recognised problem of the occasional client, that is, a person or organisation who engages rarely as a client of the industry and so is at a disadvantage when attempting to define and implement a project. Egan (1998:36) stressed that the difficulty in engaging with this group was '*of great concern to the Task Group*'. Even so, it was also noted that '*many [occasional clients] commission major projects*' (*ibid.*). More recently Farmer (2016:56) also recognised similar difficulty in reaching occasional clients, in this instance in connection with spreading new ways of working associated with the scaling up of the use of off-site construction practices.

Some of these aspects of representation, and the uneven levels of power which they may represent, may be associated with structural characteristics of parts of the industry. For example, the existence of a large group of occasional clients, and the potential consequences, for different sub-sectors, for innovation, safety and performance may amount to such a structural feature. Similarly the existence of a large number of small businesses and self-employed, and the consequent under-representation of a significant part of the industry, may also suggest structural features for similar reasons discussed elsewhere concerning fragmentation (sections 6.2.3 and 7.1.1.3).

6.2.7 Potential for Reform or Change

Some participants felt that the public sector should use its potential as a client of construction to influence the sector more effectively – for example as a means of counter-cyclical investment, as a way of introducing new policy and also for enforcing existing policy such as terms of payment. In a way some aspects of this approach have already been recognised and put into practice: the so-called 'Government Construction Strategy' was refreshed in 2016 (Infrastructure and Projects Authority, 2016a), with a five-year plan of action. This strategy addressed aspects of the power of the public sector when it acts as a client of construction, and sought to use the opportunity to influence the way in which construction is conducted. A good example here, already referred to, is the stipulation that all larger public sector projects should use BIM Level 2 from 2016 (see section 6.2.5). The strategy has no regulatory power as such but uses the alternative power of Government as buyer to influence change, hence the term '*commissioning power*' used by one participant (see section 6.2.3).

One participant, who had been involved in developing new standards for the industry, felt that existing standards (especially Building Regulations) tended not to be enforced and also tended to be subject to gaming, so weakening their intended impact, citing the Hackitt Review in support (MHCLG, 2019). The same participant felt that Hackitt may lead to a better approach to enforcement. The idea of weak implementation and enforcement may be associated with views noted earlier about lack of interest by Government in implementation and review (section 6.2.5 under 'Government processes').

The question of enforcement was not limited to matters of construction techniques on site. A policymaker felt that, given the known problems associated with late payment through the supply chain and the damaging effect this is thought to have on smaller companies, much more could be done especially within the public sector concerning enforcement of commitments to prompt payment. The same participant also saw the abuse of payment terms as being symptomatic of a wider problem with contract terms in general:

'Erm I mean in other areas in terms of decisions being implemented I think when it comes to some of the erm legal and contractual provisions frankly there are too many people in the industry who regard these as discretionary rather than obligatory. So for example 30 day payment terms in the supply chain of public projects we know it doesn't happen, we don't enforce it properly, it should happen we should enforce it properly but we don't. Err... there are also various other contractual clauses which are banned by statute they regularly appear in construction contracts... Again things are not effectively policed or enforced.'

Follow-through of policy decisions, and review, is unglamorous work. There is unlikely to be a ministerial sound-bite involved. Enforcement of legal requirements involves costs to the public purse. Strong enforcement against specific groups may risk loss of political support from the actors affected. So there may be perfectly understandable reasons why implementation and review are neglected, yet as discussed earlier (sections 2.2, 2.3) policy should be judged in terms of its outcomes rather than in terms of what is nominally intended to happen. The real impact of policy is that which is experienced by those in the field.

One final area of potential change raised is the idea of a Ministry for Construction in order to improve how Government co-ordinates its activities in relation to the sector. This possibility was mentioned by one participant, a trade association spokesperson, but there was no widespread support for the proposition indicated by others (though a specific question on the matter was not included in interviews). Gruneberg (2018) has made an important argument for a ministry as a way of embedding a voice for the industry within Government circles and enabling a more strategic approach to the industry to gain support. For several years a minister within BEIS (currently Nadim Zahawi) has held responsibility for the sector as part of a portfolio of responsibilities: the minister co-chairs the CLC. The role has tended to be focussed around matters of industrial strategy and the sector deal rather than being a focus for all Government activity in relation to the sector as would be implied by a Ministry for Construction. The call for such a ministry serves to highlight underlying problems in the sector but may only add further complexity to the already dispersed nature of accountability for links with construction within the public sector (noted in section 6.2.3). The possibility has been considered within parliament (Business and Enterprise Committee, 2008). The appointment of a Chief Construction Adviser was seen by the select committee as a better alternative, but

since the second holder of the post left the position in 2015 the Government has declined to make a new appointment – a case of churn and '*plus ça change, plus c'est la même chose*'²⁷.

6.3 Initial Analysis

Section 6.3 builds on the observations noted in section 6.2 and begins to subject them to closer inspection, further triangulation where possible, and initial analysis. Further evidence from interviews is brought into play where relevant to the development of ideas. The initial analysis here is more inductive by nature before subjecting the interpretation to a more deductive analysis in the next chapter with the use of PEA theory.

6.3.1 Policy for Construction or just Policy ?

The conventional academic analysis of the 'Construction Reform' movement, referred to earlier (chapters 1 and 2) tends to refer to symptoms including frequent cycles of interest by policymakers, the lack of follow through on commitments to action programmes and targets, the apparent poor performance (in productivity, say) and indeed many of the 'challenges' identified by participants (section 6.2.2). The analysis tends then to address construction as a sector and with limited reference to the wider policy context. Many of the symptoms, such as the cycles of interest in CIP, the relative absence of Government interest in implementation as opposed to initial announcement, the two modes of policymaking (deliberate, strategic versus crisis-driven), churn in policy and policymaking, hollowing-out of resources and so on have been confirmed by participant responses. They are unlikely to be a problem solely for construction, and evidence for a more widespread set of similar consequences across UK policymaking is included in Norris and Adam (2017).

Industrial Strategy itself, for all sectors, is a particular area of concern for Norris and Adam in that their analysis indicates that, in terms of churn and all its negative effects, industrial strategy attracts more frequent ministerial interest and churn than many other policy areas. Churn is not necessarily an inevitable feature of policymaking but it seems to be a particular problem in many policy areas for the UK and for the two areas of relevance to the present research in particular – namely skills and Industrial Strategy - even if for contrasting reasons: the former because it is an area where Ministers have '*a high ...level of discretion over change*' and the latter because it is linked to fluctuating political ideology (*ibid.*:8 and 17 respectively).

It follows that the industrial strategy for any one sector is heavily dependent for its longevity and success on the success of wider industrial strategy and the conditions which support that. If policies towards generic industrial strategy change frequently and organisations come and go, as set out by Norris and Adam (*ibid.*) then construction industrial policy will suffer a similar fate. Equally, even if such destabilising conditions are absent from the context surrounding

²⁷ Merriam-Webster credits Jean-Baptiste Alphonse Karr (1808-1890) as the originator of the phrase.

generic industrial strategy, sector policy itself remains at risk of churn and policy reversal – and of policymaker attention and meddling. It seems that there is much to be gained, in analysing construction policy and CIP in particular, from a deliberate placing of research in the context of Industrial Strategy (or Industrial Policy) in general with all its competing theories, voices and risks, rather than to assess it in isolation as an independent entity as has tended to be the case. The scope, size, diversity and perhaps undefinable boundaries of ‘construction’, and hence the degree to which business activity in construction merges with economic activity in and across other sectors, only serve to increase the inevitability of the need to link analysis of CIP with analysis of Industrial Policy.

Similarly many of the symptoms of policy processes identified by participants here for construction – such as the difficulties surrounding agenda setting, policy prioritisation, and focus on announcement – are shared with policymaking in general. Hence the evidence has confirmed the earlier proposition (in chapter 2) that just as research into CIP must be placed in the context of Industrial Policy, research into policy for construction can also benefit from being seen as just another form of policy with all the potential flaws and strengths suggested by the field of policy analysis and political science.

6.3.2 Is construction unique – and if so, how ?

It has been argued above that policy analysis for construction will be more effective if it is seen in the context of wider Industrial Policy and wider policy analysis (political science itself) rather than simply seeing construction policy as a species *sui generis*. But are there any residual arguments which support the idea of seeing construction as a special case ? That is, despite the strength of the argument for placing CIP within the debate about Industrial Policy and within policy analysis, are there any reasons why it should still be considered as different from other sectors and other policy?

To some extent there was recognition of such an argument by the coalition government of 2010-2015 in that construction was seen as an ‘enabling’ sector (BIS, 2012) because economic growth in other sectors depends on a successful construction sector delivering the required capital assets. Two participants also used ‘enables’ or ‘enabling’ to describe the industry. But there is a stronger, if related, argument. Gruneberg and Francis (2019) point out that, in contrast with most industries which tend to deliver products and services of a very limited lifespan, the product from the construction industry is the enduring built environment. So, whereas many products and services must be dealt with in accounting terms using a relatively rapid rate of depreciation, those from construction such as buildings are measured in terms of fixed capital – generally an asset is created which will last many years. More than 50% of the UK’s Gross Fixed Capital Formation (GFCF) is associated with construction and the built environment (52.8% in 2016, *ibid.*:2)²⁸. This feature alone points to construction being unique. Gruneberg and Francis go on to develop an argument to explain why, paradoxically, construction – and hence all those who work within it - is impacted abnormally heavily by

²⁸ According to Gruneberg and Francis (*op. cit.*) the remaining 47% or so of GFCF is generated by transport equipment, ICT (information, communication and technology) equipment and Intellectual Property.

passing economic cycles despite its product being relatively permanent. The personal experience reported by several participants supports this proposition. Furthermore, like Gruneberg and Francis, several participants also made a link between the exaggerated effect of the economic cycle on construction and the typical business model within the sector in the UK. The idea that construction is disproportionately affected by macroeconomic policy acting on sectors such as construction is supported also by Peersman and Smets (*op. cit.*) who attributed the effect to a combination of durable product and the extent of SME participation, and by empirical data analysed by Ganley and Salmon (*op. cit.*) – as discussed in section 2.3.

Therefore there appears to be a paradox between on the one hand an industry which, more than any other, contributes to the formation of long-life assets in the economy and, on the other hand, one where both economic cycles and the business model tend to lead to the sector's workers, and their security of work, being more vulnerable than most to the adverse effects of economic cycles. A policymaker commented specifically on this paradox, suggesting that the case is strong for deliberate counter-cyclical investment by the public sector which would both sustain business activity in construction in periods of down-turn and provide the economic benefit to society of continued investment in assets such as transport, housing, education and health, all of which would then help to seed growth for the next phase of the cycle. The stabilising impact of such an approach has the potential also to avoid the damaging effect of repeated severe downturns on business models, skills and innovation by the industry. Despite the strength of this argument, and awareness of it within Government circles, the same participant noted that such a policy solution did not happen during the last cycle (following the 2008 crisis) and they contrasted the then policy for construction with that for the automotive sector and the car scrappage scheme (for an assessment of the latter see Butcher [2018]).

Another distinguishing feature of construction which was referred to by participants was that of the public sector collectively being the sector's largest customer. This factor alone does not make construction unique (central government is a major customer of the aerospace industry for example) but in combination with the two previous points, concerning asset creation and vulnerability to economic cycles, it does place the public sector as a whole and central government in particular in a special position of influence over the fortunes of the construction sector. In addition to its capacity to form and implement policy, government can exercise the '*commissioning power*' of a major client – the London 2012 Olympics being a positive example as discussed in section 6.2.3.

To conclude, while the fate of CIP is bound up with that of the country's wider industrial policy, and policy analysis for construction should use techniques used in policy analysis in general, there is a strong argument that construction does – as a matter of *structure* - possess certain unique features (its vulnerability to economic cycles, the public sector as its main customer) which have consequences for policy especially in the capacity for Government to influence, intentionally or by default, the way the industry operates. There is also evidence to suggest that some of the chronic problems of the UK industry (flawed business model, insecure employment, under-investment in skills and innovation, adversarial culture *etc.*) may be a product of poor understanding of these persistent features which collectively suggest characteristics which are unique to construction.

6.3.3 Construction Industrial Policy – why bother ?

The reasons for selection of CIP as the subject of research were explored in chapter 1. However during the research process much material has come to light which would seem to challenge the significance of the concept of CIP, its usefulness and even the legitimacy of such a concept when used to support the idea of an explicit, active usable set of connected policy proposals or intentions. This challenge cannot be ignored, not just because it might undermine the ultimate relevance of the research, but also because within it may lie a partial explanation of the perception of repeated failure of CIP in the UK, as foreshadowed in section 1.3.1. The challenge is therefore examined in this section (6.3.3).

The obstacles in the way of forming CIP

Evidence has already been explored (section 6.2.3) regarding the sheer difficulty of designing a comprehensive explicit policy which would cover in a meaningful way all parts of a hard-to-define industry sector, as opposed to say a policy which would be suitable for housing or a policy for infrastructure. The problems here are not just those of diversity of activity within the sector, serious though they are, but also that the industry in many respects is an enabler of other industry sectors. For example, is an infrastructure policy one which is more to do with say the transport industry than construction ? Or, is a policy for housing one which is part of construction or is it more to do with, say, a social policy for healthy and productive communities ? One participant, a policymaker, was acutely aware of this kind of dilemma when they described the way in which responsibility for, and interest in, aspects of construction is distributed around many Government ministries and the public sector. Each centre of interest in construction has its own set of policy and expenditure (budget) concerns, leading to potential conflict between departments (as described by two other participants, both of whom had close experience of working between departments of central government during secondments). In theory these conflicts are resolved by the 'write-round' process of obtaining cross-departmental support for policy initiatives – as was the case with Construction 2025 as witnessed by the researcher, for example. However in practice, especially as new events or policy priorities evolve and budgets are contested, often the conflict will remain – hence the observations made by the participant quoted in section 6.2.3 regarding the absence of a '*coherent*' policy for construction across Government. Another participant, also a policymaker, pointed out that Construction 2025 had largely been left as a static strategy rather than being subject to periodic review and updating as would happen in the private sector, where they had also worked. Therefore the first obstacle in the way of a meaningful CIP can perhaps be said to be simply one of the low feasibility of even forming and maintaining a sector level policy in the first place, if it is to be anything more than mere warm words as the lowest common denominator between stakeholders.

A second obstacle operates at a more ideological, or perhaps philosophical, level and has been referred to in earlier chapters. This is to do with the fundamental alignment or otherwise of any one incumbent Government with the idea of industrial policy, or more specifically, with the idea of an active industrial policy. Events over past decades have shown that in the UK such active interest has been inconsistent and this has contributed to the cycles of interest,

and hence uneven implementation, in the UK (see section 2.5.1; and also Norris and Adam, 2017:18).

A third obstacle perhaps attaches to all forms of policy making but to construction in particular. Namely, given the sheer size and complexity of the industry, and the large number of stakeholder groups who may feel entitled to be consulted on policy decisions, how does one design an ongoing process by which such large numbers can be represented? This problem is perhaps felt most acutely by BEIS, who more than most departments find themselves with this challenge. Some of the evidence regarding representation was explored in section 6.2.6. One of the questions asked in the interviews was regarding those voices which are absent, in practical terms, from the existing process: the answers tended to refer to three groups, namely, small businesses, large parts of the construction workforce (including the self-employed and employees, whether via Unions or other routes), and the public (some participants included 'building users' in this category). A distinction needs to be made here between engagement with sector policy (CIP) and engagement with specific policies - say Building Regulations or Terms of Payment - where the involvement of some of these 'under-represented' stakeholder groups may be much higher.

In terms of groups such as SMEs there are at least nominal routes available to them by which they can engage via representative bodies but a number of participants felt that, especially when compared to the major companies in the sector, the voices of SMEs tended not to be heard. The smaller businesses in the supply chain, who were included among participants, saw policy (especially at the widescale or umbrella level) as being something remote from their everyday working experience. One participant, from the supply chain and whose business was active in relevant specialist trade associations, had little knowledge of industry-wide CIP such as the Sector Deal. Participants observed that SMEs just did not have the resources to engage at the policy level.

In the case of Unions, who to date have not been represented on the Construction Leadership Council, there may be political reluctance on the part of the current Conservative government to engage at the present time. The alternative route of engaging via Parliament, where many MPs are sponsored by Unions, is one which is used, as observed by the participant from a Union background. The long-term trend towards subcontracting of work packages by the major contractors and towards 'casualisation' of the construction workforce (as observed by participants from both contracting and Union backgrounds) is likely to have impaired the capacity of the Unions to fully represent workforce interests to policymakers, leaving many in the workforce without any voice at the policymaking level.

Turning to the third category of under-represented stakeholder, namely the public, engagement with this group is perhaps a universal problem for policymakers. There was one dissenting view, expressed by a policymaker, who observed that the public are in fact highly engaged in building regulations and standards, relative to other stakeholders. Nevertheless with that exception, it is hard to find any evidence of participation by the public certainly in the case of sector-level policy – except perhaps in the most indirect sense via the political parties and their manifestos²⁹.

²⁹ At the time of writing evidence is beginning to accumulate that the Grenfell Tower disaster has raised public awareness of the consequences of poor implementation of policy in relation to building standards. But

Several participants observed that there is no single voice for the industry. Instead participants tended to refer to the 'big four' groups of BuildUK, Construction Products Association, the Civil Engineering Contractors Association and the Federation of Master Builders. The Construction Industry Council (CIC) nominally has a wide coverage, especially of the professions, and is involved with the CLC, but there was little evidence from participants to support the idea that it speaks for the industry. The CBI was mentioned by four participants as an additional route for the industry to express itself. Outside of these larger groupings there is a large number of much smaller groups often focussed around a specific market sector or product category. In the absence of a single voice recognised by the industry, the CLC can be seen as an attempt by policymakers to create one, using the Automotive Council as a model (Wajzer, Munro and John, 2016). One participant, a policymaker, recognised that this was one of the motivations behind establishing the CLC, as also there had been corresponding attempts at forming an industry voice in the past. The same participant expressed scepticism, based on their experience of the '*cacophony*' of voices coming from construction as perceived by Government, of the feasibility of ever reaching the ideal of a single industry voice.

Participants varied in their enthusiasm for the CLC, which often depended on the extent of their engagement with the organisation, but the evidence from participants is at best mixed that the council is accepted by the industry as its single voice and several were critical. Nevertheless there have been recent moves to broaden participation in the CLC, with the appointment of an FMB member and of an academic. The abolition of the post of Chief Construction Adviser in 2015 was noted by two participants as weakening representation of the industry within Government, and possibly damaging the sense of ownership within Government of both Construction 2025 and of the CLC. The governance, representativeness, effectiveness and future of the CLC is not a topic which can be explored in depth here, but the evidence illustrates the on-going challenge for policymakers, in the absence of a single voice being generated by the industry, of determining who they should engage with on an on-going basis.

A final dimension of industrial policy relevant here is that of more localised industrial strategy. A number of participants gave evidence of the increasing role of local and regional authorities and their engagement with the industry. A Scottish strategy for construction was published in 2013, leading to the formation of its own leadership group (Scottish Enterprise, 2013; Construction Scotland, 2016; see also Construction Scotland, 2019) whereas at least nominally Construction 2025 and the CLC cover the whole of the UK (HM Government, 2013:73). The need for local industrial strategy to complement any national strategy has been emphasised by Bailey, Cowling and Tomlinson (2015) and Bailey, Glasmeier and Tomlinson (2019). During 2019 a number of local industry strategies were published (HM Government, 2018b), aligned with the 2017 Industrial Strategy (HM Government, 2017b). Each of these more local areas of activity implies a more localised policy process, and a much expanded population of potentially active stakeholders, all of whom are operating largely outside any hierarchical approach to organisation and decision making in respect of any kind of industrial strategy. While more localised strategies may be a more effective way of responding to local needs and potential, they also raise challenges in terms of co-ordination of effort – and, as

perhaps this notable exception, and the extreme circumstances which led to it, illustrate the strength of the normal tendency towards lack of public engagement.

pointed out by some participants, may increase the challenges for organisations who operate at a national level in terms of how engagement can be resourced and managed.

So why bother with CIP, what are the drivers ?

Therefore in the face of such obstacles, and given the somewhat negative history of attempts at construction industrial policy, the challenge described in the opening remarks of this section (6.3.3 and at several points within section 6.2) is substantial: in effect, why have policymakers persisted with attempting an industrial policy for construction at all, irrespective of how limited the form ? What gain is being sought and by whom ? The persistence of the policy form, albeit in varying manifestations, despite all the obstacles to effectiveness, and the periodic resurgence in interest, suggests the existence of an underlying set of drivers.

Clearly, certain drivers of interest in Industrial Policy or Strategy apply to all sectors and operate at the level of the national economy. It is helpful to be aware of them in that they might offer a partial, if not sufficient, explanation for why policymakers persist with CIP itself. The 'generic' drivers might include the need to recover from recession (as was the case in 2010-15: Heseltine, 2012), or to drive productivity (HM Treasury, 2015) or innovation (HM Government, 2017a). For construction, one specific driver of CIP itself in the 2010-15 cycle was the sense that other sectors, which needed to grow if the economy as a whole were to grow, would not do so unless 'construction' could deliver projects in the timeframe and quality required – that is, construction is an enabling sector (BIS, 2012:32) (as observed in section 6.3.2), even if it is not the end product as such. This idea of construction as the enabler does seem to resonate with the observation reported earlier that the majority of the UK's Gross Fixed Capital Formation is associated with construction (section 6.3.2), that is, its output tends to be in the form of a capital asset for use by others rather than a consumable product or service. But if construction is not a unitary sector in the same sense as other sectors, and if the sector cannot be changed as readily, then what additional factors are at play? Who gains from the announcement or launch of the new CIP ? What are the champions of CIP seeking to achieve through such a policy ? Are there ways in which the difficulties are eased ?

One way of lowering the barriers in the way of forming a meaningful CIP is to reduce its scope in order to simplify the process of its generation and its scope. For example, one of the most quantifiable outcomes of the 2017 Industrial Strategy was, for construction, the launch of the sector deal (HM Government, 2018a) and the associated funding amounting to £420m jointly coming from Government and industry. The sector deal, and the 2017 evolution of Industrial Strategy, emerged from the positioning of Industrial Policy as 'mission-based', an approach cultivated by Mazzucato (Kattel *et al.*, 2018) (see section 2.3). The sector deal does refer to a great deal of other activity such as support for housing but arguably much of this was pre-existing rather than additional activity. Hence the focus of the sector deal is on innovation as opposed to being a fully '*coherent*' approach for most of the activities in the sector. One consequence of this narrower approach is that one participant, from a Union, felt the sector deal approach simply contains '*[no] answers here for our industry*'.

But perhaps the simplest way to explain the persistence of the CIP idea is to do with the motivations and interests of ministers and policymakers both inside and outside Government. An industrial strategy does not necessarily require legislation. More than most areas of policy

it is known to be an area of policy churn (Norris and Adam, 2017). It lends itself to the political act of a ministerial announcement, which may help the minister and incumbent administration. In terms of policy analysis it can be seen as being one of the policy tools always sitting in the policy 'garbage can' (see section 6.2.5) awaiting the appearance of the right policy champion (say, an incoming minister anxious to be seen as being active, within his/her term of office) and the right moment (a recession, or political stress arising from some other cause such as regional disparity). There is always a pre-existing body of work within Government upon which to either build or to rebuild – see for example Central Office of Information (1995) which was a description of Government activity in relation to industry and published during the allegedly non-interventionist years of the Conservative government of 1979-1997. Perhaps most importantly, as has been shown earlier (section 2.3), industrial policy in one shape or other is always present whether implicit (or even by omission) or explicit (at various levels of sophistication), and in particular, given the public sector's role as the industry's major customer, construction policy itself is also always present whether implicitly or explicitly and to a greater degree than most industries. Furthermore, Government, when under voter pressure to deliver on housing or transport or energy infrastructure also depends on the construction industry if it is to deliver on its electoral promises.

Summary (of section 6.3.3)

There are major obstacles in the way of developing, implementing and analysing CIP at the level of the sector. These include the difficulty of defining the sector, its size and diversity, the absence of a single voice representing the business side of the sector, the weak representation of certain parts of the sector and in recent years the evolution of more localised industrial policies. Yet these obstacles have not been sufficient to prevent repeated attempts at CIP over many decades, implying the existence of strong enduring drivers for policymakers and others to concern themselves in the activity. One cause is to do with the permanent nature of the existence of industrial policy, in that it is always present even if by default or neglect. One function therefore of an explicit CIP is to attempt to join up or harmonise the prevailing pattern of existing and proposed individual policies which bear on the industry, with a forward look at emerging risks. Not every Government, or every Business minister, might wish to address this task, but the underlying context and need remains. Secondly, there are likely to be almost equally permanent shared interests between the construction industry and its major client, the Government, in the success of the industry, which are ignored at the peril of both. Thirdly, at the more personal level of the actors involved, both industrial policy and CIP represent an opportunity for ministers, civil servants and other policy makers to be seen, through the medium of public announcements and policy launches, as being active in addressing the issues of the day – irrespective of whether the announcement of policy is comprehensively followed up with the intended outcomes. This last point relates to the idea that political discourse (within which ministerial announcements are carefully choreographed species) is a political act, an attempt to communicate meaning and to create a particular future in competition with others (Chilton, 2004). The garbage can school of thought on policymaking also offers some explanation as to why the fortunes of both IP and CIP fluctuate: activity by Government in relation to the industry at an individual policy level to some degree always continues (skills, SMEs, innovation *etc.*), even if without recognition as a co-ordinated IP, and so provides some kind of ready-made foundation for when the conditions coincide within the garbage can of the policy idea (IP and CIP), the policy champion (the new minister) and the

policy need (recovery from recession, say). This set of pressures and opportunities may be even stronger in the case of construction than for other sectors (because of the role of the public sector as client in chief; the size of sector in terms of number of workers and voters; and construction's role as enabling sector so it is relevant to politically sensitive areas such as housing, infrastructure, exposure to and recovery from recession, and productivity).

Summary of chapter 6

Observations and Initial Analysis

Chapter 6 marks the transition between the examination in earlier chapters of theory and methodology and, in this chapter, the recording of observations and their interpretation. The overall sequence of thought was described as comprising the five steps of data, observations, interpretation, analysis and discussion. In the presentation of observations and analysis priority has been given to a theme-based approach.

The data collected – principally in the form of interview transcripts - were very diverse and rich in content. The six main themes which emerged from the interviews were identified as: major challenges, the nature of the construction industry and policy for construction, historical legacies, aspects of change, representation, and finally the potential for reform. Each of these themes in turn was described in more detail in terms of the observations emerging from the interview data and triangulation.

A further stage of analysis was included, concentrating on three areas. First, the characteristics, or symptoms, regarding policy for construction were interpreted in the light of broadly similar observations regarding other fields of policy made by other researchers (e.g. the interest of policymakers in announcements rather than implementation; policy churn; hollowing out of resources). Two policy making modes were proposed: deliberate and strategic versus crisis-driven. There is evidence that industrial policy is an area of policy which is more vulnerable to policy churn than most. The data and analysis so far have confirmed that the proposition that the fortunes of CIP, and the oft-cited symptoms of its poor performance, are linked with both the fortunes of policymaking processes in general and also of those of industrial policy in particular.

Second, if CIP is indeed just another example of policy and industrial policy, the question was considered as to whether construction (and therefore CIP) is nevertheless unique and does require special treatment after all. It was concluded that there are several features which in aggregate do point to construction being unusual among sectors and requiring specific treatment: it is an enabling sector; it is associated with the formation of long-life assets to a much greater degree than any other sector; it is uniquely vulnerable to economic cycles and to macroeconomic policy; the public sector is the client-in-chief of construction and so has a special position as influencer. Some of the chronic problems of the sector may be linked to these unique features – as well as to the consequences of generic policy and industrial policy.

Third, the barriers in the way of forming and maintaining a viable sector-level policy for construction suggest that there must be some underlying drivers beyond the nominal reasons often used to justify CIP, and beyond those used to justify generic industrial policy. Some of construction's unique features go some way to act as an explanation. Simplified forms of IP such as the mission-based approach can help to lower the barriers to its creation. However,

the motivations and interests of policymakers and of those in the industry in having an identifiable and public policy for the sector may make the crucial difference. Industrial policy and CIP to some extent are always present, whether latent or explicit and hence, as a persistently available policy 'solution' hence they just need the right opportunity in terms of, say, crisis and policy champion to enable them to emerge from the policy garbage can. Yet if such are the circumstances which make the difference between formation of CIP or its neglect, then they may, because of the linked tendency towards lack of implementation and review, contain also the seeds of its consequent cycle of decline.

7 Using Political Economy Analysis Theory

Chapter highlights:

Testing findings against theory – structure – examples – why doesn't structure receive more attention? – structure, so what? – institutions – examples – institutions, cause or effect? – What is meant by agency? – examples – the contribution of the individual to change

Introduction

The emphasis of the previous chapter was on description and analysis of specific aspects of CIP according to the evidence accumulated. The analysis up to this point has been driven by the data whereas PEA theory has been deployed only to a limited degree. This chapter (7), therefore, seeks to redress the balance of attention in favour of a consideration of the theory and the extent to which this might be consistent with, or alternatively challenge, the observations and analysis reported so far.

One of the themes which PEA pays particular attention to is that of structure – namely those features of any given context which can be considered permanent or not susceptible to change in practical terms, and which therefore may have a dominating or limiting effect on policy options and implementation (see chapter 3). Similarly, any PEA investigation is expected to pay attention to institutions in the sense of the way things tend to be done, but which can be more susceptible to evolution and change than structure. Agency, the ability and capacity of an actor to act to realise their intentions (Hudson and Leftwich, 2014:6), can be seen in part as a product of both structure and institutions. All three concepts interact in a dynamic way to limit or enable change. All three are more difficult to identify than some of the other themes which have emerged from the interviews which have been described in chapter 6, yet they are all important to gaining an understanding of policy context, and so they may need to be inferred from evidence rather than lying in plain sight.

This chapter takes each of these three terms in turn and, after a brief discussion of definition and meaning, examines the extent to which they have emerged as meaningful concepts during the observation and analysis phases. By doing so the relevance of the PEA approach to construction policy will be explored.

7.1 Structure

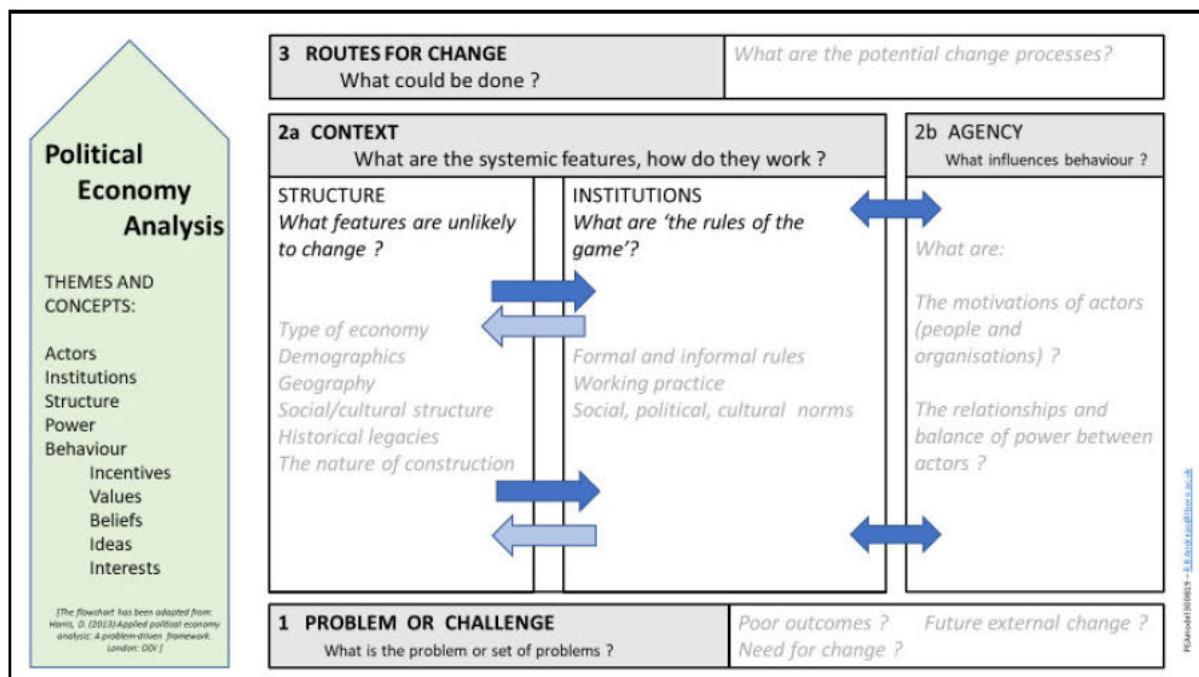
'Structure' is one of the most important terms used in PEA and is one around which there is perhaps most scope for confusion. The word 'structure' has been defined as

'the arrangement of and relations between the parts or elements of something complex'

and its origin lies in the Latin word for 'to build' (*Oxford English Dictionary*, 2019). Structure, in everyday language, is used in many non-engineering contexts as a metaphor for those aspects of experience less vulnerable to change – as opposed to, perhaps, the non-structural decorative elements of a building. The word is used in this way in PE/PEA as a means of capturing the idea that there are certain aspects of any given political-economic context which are either fixed (such as geographical relationships or past events) or which are tantamount to being permanent features (such as matters of local legal tradition): Booth *et al.* (2009:9, in referring to the Drivers of Change approach). Within PE/PEA such aspects are distinguished from patterns of behaviour, or cultural norms ('institutions') which are more susceptible to change but which may be in part influenced by the structural features of the situation. Figure 9, the visualisation of PEA developed within this research, based on similar models within PEA writing (see section 3.7.2.1), represents these relationships in simplified form.

Figure 9: Final template of the PEA model

Adapted for use with construction



The word 'structure' is used in many different (non-PEA) contexts as a metaphor to describe aspects which provide some kind of shaping force, passive or active, which is also relatively resistant to change. In particular, in the social sciences, Giddens (1984) has developed an influential 'theory of structuration' where, for example '....agency shapes structures, which in turn condition agency....' (quoted in Buse 2008). Importantly Giddens also points out that there is a further set of influences on both structure and agency such as those related to 'space and time' (geography and history). So both PEA and Giddens acknowledge the existence of layers

of influences on behaviour (agency), each one of which has a greater or lesser degree of fixity, and which to a greater or lesser extent can be influenced in turn by behaviour (agency). Figure 9 attempts to capture this sense of flow of mutual influence, and degrees of capacity for change. Like all such models it is merely a graphical representation and an aid to thought rather than a rigid problem-solving formula. It is suggested that the difference between Giddens' perspective on social change and that of PEA is more one of definition of individual elements rather than signifying a difference in the underlying meaning concerning the way in which agency is moderated by and in turn may change context³⁰. The phrase '*ever-deepening set of questions*', used to indicate the nature of political economy inquiry (Weingast and Wittman, 2008:3), can be seen as capturing the sense that, for any given phenomenon of behaviour under investigation, there is a potential process of seeking root-causes in a continuous cycle of question/answer/question towards more fundamental factors.

The degree to which a policy analyst – or, importantly, even a participant in the present research - may wish to pursue this quest for deeper causes is influenced by a number of factors. First is the natural inclination of the person in question, which may itself be moderated by the habits of thought acquired in that person's professional role (which may for example range from the more operationally orientated to the strategic and long term) and their 'interests' (another PEA term, indicating a sense of where personal motivations, financial or otherwise, might lead an individual). Secondly the nature of the problem as defined may be more current and demanding of immediate action within present constraints ('how do we build more houses this year', for example) or alternatively there may be more of an opportunity to be strategic in thinking (hence, perhaps, Construction 2025) implying more opportunity to look for root causes as opposed to merely the symptoms. So the assumptions, both implicit and explicit, made at the beginning of any inquiry regarding the nature of the policy question, and what can be considered in play, will influence both the diagnostic process and will inevitably influence the selection of remedies or actions – there is something in common here with the '*What's the problem represented to be?*' approach proposed by Bacchi (2012).

The iterative, subjective and personalised nature of the process proposed here for investigation of symptom/cause/question/answer/question amounts to a situation of exploration and discovery. It suggests that any two different groups of people are quite likely to follow two different paths – and there is no guarantee that they will reach similar conclusions. This implies that it is most important there is a diversity of outlook represented (as recognised by several participants). While the present research confined itself to one-to-one interviews, rather than say including focus groups or other collaborative techniques, the idea that the crucial activity in the use of PEA is one of shared discovery and that it should even be an on-going process rather than a one-off study is supported by Whaites (2017:12), Edelman, (2009:72-74) and Booth *et al.* (2009:20).

Turning to a consideration of the extent to which factors identified by participants might suggest 'structure' and more fundamental, more fixed, features, a number of candidate features can be identified. Several of these are considered below.

³⁰ In Giddens (1984) 'institutions' also has a highly specific meaning, to do with the way in which 'structure' is passed on and also manifested in an endless loop of interaction. On the other hand, PEA tends to see institutions as a broader concept which includes Giddens' concept but also includes organisations (Whaites, 2017)

7.1.1 Structure – examples

7.1.1.1 Structure – vulnerability to economic cycles

Seven participants drew attention to the vulnerability of the sector to economic cycles. Participants observed that this has consequences for the business model and culture within the sector (for example, risk-averse, minimising of overheads, low investment in training, skills, innovation). Such observations in themselves are not new (Egan, 1998:8), but to what extent can the vulnerability be seen as structural, and if it is structural, are there any steps which can be taken to mitigate the impact ?

Section 6.3.2 discussed the argument of Gruneberg and Francis (*op. cit.*) concerning the dominance of construction in Gross Fixed Capital Formation (GFCF) and the way in which, as the product of the industry is a fixed asset rather than a consumable item, it does have a special vulnerability at times when the economic cycle is in transition – whether favourable or unfavourable. Unlike many other industries the difference between demand at the top and at the bottom of the economic cycle is not a matter of a few percentage points but can be as much as 50%, which tends to cause businesses to reduce their fixed costs to the minimum and leave them there rather than adjust them back up when there is a higher level of business activity (as described by one participant, speaking about the way in which demand for housing reduced in the 2008-10 crisis – see section 6.2.4; for a comparison of the sector with the rest of the economy see Rhodes [2018:5]). If such a level of adjustment is translated into numbers of workers laid off or retained in the industry it is clear that, except at the bottom of the economic cycle, there will be too few workers available for the projects required – in other words most of the time there will be a shortage of workers (as one participant noted). Similarly other ways of minimising fixed cost will be sought such as lower commitment to innovation (research and development) and the use of casualised labour.

A political economy and ‘Varieties of Capitalism’ perspective on this would also add that the UK’s liberal market economy (LME), as one of ‘*switchable assets*’ and with low cost barriers to the laying off of workers (see section 2.5.3), enables an ‘agile’ response to boom and bust – but at the same time may amplify the scale and rate of change of the inflexions in the economic cycle compared to other economies such as that of France. At which point in this sequence of analysis one chooses to stop and select a target for reform is likely to reflect the political beliefs of the person making the choice. There is a generally accepted approach that it is permissible for Government to intervene when there is a market failure (one participant, a policymaker, explained the extent to which this is ingrained in Government’s approach), but what is the market failure in this instance – is it failure to innovate or failure to recruit people, or is it the underlying configuration of the economy ? Most of the time, perhaps, the fundamental political economy of the UK’s constitution will not be considered in play (indeed, why should it be re-designed if only one industry is so negatively affected ?) and so stakeholders and policymakers almost out of necessity, in order to be seen as taking action, will concentrate attention on dealing with the less fundamental symptoms and solutions.

Structural features in themselves do not automatically lead to any specific consequences but interplay with the actions of many individual actors. A more visible aspect is the way in which society (actors, investors, the public, corporate entities) will tend to react to an anticipated

boom or bust in an adverse feedback loop by, say, delaying investment expenditure at an even faster rate than that at which national economic output decreases. There might be potential remedies available, for example as proposed by one participant, in terms of counter-cyclical public investment when Government and others will tend to have access to lower than usual interest rates. Several participants referred to the Help to Buy scheme as an attempt at one such policy, though they tended to refer to it in a critical light as serving the interests of only a relative few, especially housebuilders rather than would be homemakers. But such mitigating policies, even if fully successful, would not invalidate the observation of the underlying structural factor of the nature of construction and its association with the creation of fixed asset value (GFCF). Such an underlying structural factor also means that other 'symptoms' such as flawed business model, risk aversion, low investment in training and innovation – if they truly are consequences of such a structural cause – are less likely to be solved either individually or as a group by short-term superficial policy initiatives which ignore the underlying drivers.

It can also be observed that repeated boom/bust cycles will tend to ingrain culture and institutions as a matter of economic survival for people and businesses working in the sector. Hence the source of the common criticism of the industry – that it is slow to change, self-serving, driven by money and margin – rather than being a freakish flaw of nature of those working in the industry, who are different from all others in the working economy, is more likely to be a consequence of such a structural feature. There may be ways to mitigate the impact but the fundamental cause, it would seem, must be addressed if any substantial change is to be achieved. Any remedies need to be as enduring as the structural feature in question.

7.1.1.2 Structure – role of the public sector

Six participants stressed the significance of the role that the public sector collectively has as the major client of the sector. This is a well-recognised feature of the industry – for example the Government Construction Strategy 2016-20 states

'Over a quarter of construction output is from the public sector and central government is the biggest single construction client, with considerable influence across the UK marketplace' (Infrastructure and Projects Authority, 2016a:3).

More recently the significance of the public sector (33% in 2010; 24% in 2017) was confirmed by Rhodes (2018:3) though over several years the trend has been towards a slow reduction in the dominance of the public sector (*ibid.*:3,10). The significance of the public sector as client was pointed out by many participants in that it has two chief interests. First, in order to deliver on major aspects of Government policy where it is accountable to the electorate – transport and energy infrastructure, education, hospitals and housing for example – Government is compelled to take an active interest in the performance of the construction sector (that is, in the sector's ability to deliver the physical assets required). Secondly, as client the public sector has a powerful ability to select the rules and standards of procurement and so to influence, without need for legislation as such, many aspects of how business is done in the sector: examples include requiring the use of BIM level 2 (Cabinet Office, 2011), the presumption in favour of offsite manufacturing (Treasury, 2017:53) and terms of payment (Hammond, 2019). One participant, a policymaker, pointed out also that, given the size of the sector in terms of

number of workers (3 million under the wider definition) and in terms of voters, the Government is obliged to pay attention to the economic well-being of the industry.

All of these factors together may amount to a structural reason for Government to be interested and active in policy for the sector. There is a sense that Government has both accountability and also agency in that either by legislation or by virtue of its position as major client it can shape the rules within the sector.

However, there are two reasons why the feature 'public sector as major client' could be challenged as a structural feature. Several of those mentioning the importance of the public sector as client referred to a rather higher proportion of procurement by the public sector – typically '40%' – than is borne out by data in recent years (24% in 2017), and this belief may represent a legacy, an inherited approximation, from earlier decades. As indicated earlier in this section (7.1.1.2), Rhodes (2018:3,10) has discussed recent trends towards the increase in importance of the private sector as client.

A further argument against the idea that central government dominates, or has the potential to dominate, as client is that procurement processes and centres of budget holding are in fact well distributed across the public sector in different ministries, agencies, and regional or local government. One participant, a policymaker, pointed this out as one of the factors preventing a '*coherent*' strategy for construction (see section 6.2.3); the same participant also pointed out that even existing policies are often disregarded within the public sector. Current trends towards devolution of executive power to the regions and cities increase the sense of a reducing role for central government as client – indeed industrial strategy itself has become part of a decentralisation process with regional industrial strategies being under development (HM Government, 2018b).

Therefore the implicit assumption of a hierarchy where central government is able to dictate and implement public sector policy for the industry in a unitary way is hard to support, especially in those sub-sectors where its role as client is weak or indirect (say housing as opposed to transport infrastructure). On the other hand it is hard to see government retreating from having a major engagement with the industry in those areas where political accountability is acute such as in housing. Therefore, while there is good reason for caution before accepting '*public sector as major client*' as being structural in the sense of being a difficult to change feature, in the short to medium term at least it seems safe to describe this feature as structural. It is possible that some in the industry over-estimate its present and future significance, however, and make unjustified assumptions regarding the capacity of central government to lead and influence the industry as a whole. Even where there is strong policy in place – such as the Government Construction Strategy 2016-20 (*op. cit.*) - this tends to be for limited parts of the sector, especially infrastructure.

Does the prevailing inaccurate assumption about the agency of central government in relation to influencing industry conduct have any other consequences? The lack of a single strong voice for the industry, in the view of participants, was discussed earlier (section 6.3.3). One consequence of an exaggerated, and outdated, assumption within industry regarding both the size of the public sector as client and also the real capacity of central government to perform a leading role in the industry, may be to reduce any sense of necessity or urgency for the industry to form its own clear voice and leadership. This in turn would cause frustration on both sides regarding the agency of Government and cause frustration concerning the

outcomes from attempts at policymaking such as Egan and Construction 2025. Such a consequence, namely a tendency towards undue reliance on Government, may also be a factor in the context surrounding the next candidate for 'structure', fragmentation.

7.1.1.3 Structure - fragmentation

The fragmentation of the industry was highlighted in section 6.2.2 as being one of the top four 'challenges'. Then, in discussing participants' views concerning industry scope (6.2.3), its diversity and fragmentation were noted together with the difficulties this creates for stakeholders and policymakers. Fragmentation, and its consequences, are certainly recurring themes in construction improvement literature, and it may amount to a structural issue. As also noted earlier, fragmentation may in some circumstances be helpful in, for example, enabling flexibility, or agility³¹, in response to change. There is certainly a theme within reports such as Latham, Egan and subsequently that efforts should be made to reduce the negative impact of fragmentation through, say, collaborative working practices (BIM being seen as one possible catalyst: HM Government, 2015). The persistence of fragmentation may even be in part a consequence of another possible structural feature previously discussed (section 7.1.1.1), namely the vulnerability of the sector to economic cycles and the LME nature of the UK, in that the bust/boom/bust sequence leads to a parallel process for small businesses of termination/formation/termination (see also section 2.3, regarding the observation by Peersman and Smit [*op. cit.*] that sectors with high SME representation are more affected by macroeconomic policy). Nevertheless it seems likely that a degree of fragmentation is inevitable and hence is itself structural. Whatever the cause, fragmentation is a persistent, though not wholly negative, feature of the industry which has consequences when thinking about policy for the sector and root causes.

7.1.1.4 Structure - representation

In preceding sections (6.2.6 and 6.3.3) evidence was discussed concerning the under-representation, or the reduced ability to influence, of certain groups and the probable causes:

- SMEs (associated with lack of resource and inadequate pathways for representation): there are estimated to be 1 million firms in the construction sector, amounting to 17% of the total in the economy (Rhodes, (2018:4). According to BIS (2013:18) SMEs '*... comprise some 99.9% of UK construction contracting businesses*', defined as those with less than 250 employees. To some extent the trade association FMB is a relatively well-known voice for SMEs in the sector, though with under 10,000 members (according to its website, in late 2019).
- The self-employed (associated with highly mobile workforces working for short periods of time in different locations for different contractors and supply chains): according to

³¹ 'Fragmentation', 'flexibility' and 'agility' can all be politically loaded words, the choice of which may reflect upon the interests and policy objectives of the actor making the selection, as much as being any reflection of an underlying configuration of the industry.

Rhodes, (2018:3) 37% of workers in the industry (of a total of 2.4m based on a relatively narrow definition of the industry) are self-employed compared to the economy average of 13%, and to a figure of only 8% for those in manufacturing jobs. One would expect that many of the self-employed are also included within the numbers of SMEs, but in either case participants felt that the voice of these groups was under-represented in policy networks.

- In some sub-sectors, e.g. housing, the end user or occupier was considered to be under-represented (and so, in the case of housing, was considered less likely to be able to influence major national housebuilders)
- The problem of the 'occasional client', who does not have the opportunity to have acquired depth of experience in connection with construction, but who sometimes may nevertheless even be leading on the procurement of even large projects

It could be argued that these are very specific features or consequences of fragmentation. Some aspects may be a consequence of an LME (switchable asset) economy where outsourcing and casualisation of labour is accepted practice. However it would seem helpful also to regard them as features in their own right which to a degree may be structural. For example, difficulties in the representation of the large number of SMEs seem to be an inevitable consequence of small organisations working in the extensive range of different activities across construction in different locations (i.e. building sites) across the country. While some policy measures are aimed at corralling these businesses together – for example the Government-endorsed TrustMark quality scheme³² - SMEs in themselves are seen as a mode of business which can be helpful in terms of responsiveness to changing business. Similar arguments relate to the representation of the self-employed. So if the existence of large numbers of SMEs and self-employed is inevitable (barring major but unlikely changes in the way society and the economy is organised) then so will there be an obstacle to representation.

The data quoted above concerning the dominance of SMEs and self-employed in construction, compared to other sectors, suggest that an important voice, or set of voices, is being all but ignored. A policymaker pointed out the difficulty of engaging with this group. Some participants felt that the SME/self-employed response to attempts at policy was one of disinterest and resignation rather than anger. The absent or weak voice is not only something which may harm the interests of the individuals affected but – if policymaking is to be an ongoing process of discovery – the consequent lack of insight available to policymaking circles from the affected stakeholders may result in less meaningful and less effective policy.

The argument for a structural element to representation is even stronger in the case of the occasional client. Outside of infrastructure most clients would not be expected to buy from the sector frequently. This impairs the capacity for meaningful discourse between client and supplier, and by extension between client and the policy network, as observed by one participant who felt that clients should in fact be seen as part of the industry. The situation of weak representation and engagement may be structural in the sense that the existence of a high proportion of occasional clients in the market is likely to be a fixed feature, even though the exact proportion may fluctuate over time.

³² The TrustMark scheme seeks to advance quality standards among smaller businesses in the industry by means of certification of quality scheme providers, under which an individual business can be registered.

7.1.1.5 Structure – other features

The aspects of structure discussed in this section should not be taken as an exhaustive list but they have been explored as a means of testing the use of PEA theory in understanding construction policy. Further analysis of participants' responses is likely to reveal other candidates for consideration as structural influences – and imply more strategic solutions than those which policymakers normally permit themselves to consider. An important example of this is represented by much of the contribution from one participant, an architect, whose approach differed considerably from that of others interviewed. This participant has had a long association with the industry in a variety of roles which has caused them to think deeply about the challenges which confront it. Their analysis merits a much fuller explanation than can be afforded in the present context. But they do deserve a little more exposure here in that some of the diagnosis and proposed solutions do touch on structural, fundamental, influences which may require action far beyond the scope of what can be described as construction policy.

This participant's starting point was a sense of there being something wrong with the industry similar to the general pattern of symptoms identified by other participants – including confrontational ways of working, focus on cost rather than value, and poor outcomes. They remarked:

'... our industrial structure in construction, design and construction,isn't fit for the purpose'.

They suggested remedies including a complete re-forming of the educational process for those associated with construction and design (indeed avoiding a separation of 'education' from research and practice) with a stress on collaborative working and focus on value. Other, more structural, areas for attention and potential reform included the political, legal and constitutional arrangements within the UK. For example they would want to correct the dominance of Westminster government with a set of regional centres of democracy to represent more local interests more effectively. They see the UK's legal and political system as one based on confrontation, with an adversarial winner-take-all approach. In some ways they therefore, without necessarily being aware of it, share some of their analysis with that of PE and especially the Varieties of Capitalism approach, within which the UK is seen as a LME, switchable asset, economy. It is not possible to do adequate justice here to the analysis offered by this participant but what is relevant is their determination to look for root causes and to work out ways in which they might be addressed: in other words they are conscious of the kinds of influences which PEA would label as 'structural', but they are also prepared to consider targets and options for change which most who are active in the industry do not contemplate or even consider – perhaps because the debate for change would need to involve most if not all of the adult population, not just those with an interest in the construction sector. Their approach is therefore likely to be seen as too radical, or unrealistic in practical terms, by most in the industry, and its chances of success may be seen as equally remote. However their perspective does serve to remind those wishing to involve themselves in reform of construction that there is a danger in moving too quickly from symptom to solution, and that there is value in first identifying and challenging prior assumptions which might prematurely circumscribe the possible solutions and the categories of people who need to be engaged.

It has also to be recognised that such fundamental analysis is very likely to lead to a need to work across industrial sectors and to involve wider sections of the community, to the extent that the unit of analysis is no longer the construction industry nor construction policy. Such an approach becomes far less manageable and less predictable in terms of outcome, bringing new challenges for policymakers, as is explored under the next heading.

7.1.2 Structure – why doesn't it receive more attention ?

It can be argued that many policy problems are dealt with in a piecemeal way: the solution to the skills problem is more apprenticeships, the solution to lack of innovation is the sector deal, collaboration can be fixed by BIM, poor recruitment is fixed by improving the image of the industry, and so on. By contrast PEA offers a process of analysis whereby the investigator may move progressively from observation of symptoms towards ever more entrenched or immovable causes. It supports a focus on root causes before any consideration of a programme for change. An underlying assumption behind PEA seems to be that superficial tinkering with policy solutions for symptoms without first considering the chain of causation will not amount to a well-founded, successful process for change. If the case for a focus on root causes is so strong then why do structural pressures and root causes seem to receive so little attention within construction policymaking?

There seem to be several likely reasons for such a lack of attention. First is the one of difficulty and complexity. One participant drew attention to what they saw as the tendency of Government consultations to be too narrow, as if the answer had already been worked out, with responses (which usually are required to address a prescribed sequence of questions) being shepherded towards a limited set of proposals:

'I think quite a lot of time [the] decision's already been made.....it's a bit of a tickbox exercise'.

Another participant, with a senior role, spoke about less formal consultation processes carried out with the industry:

'I think some of it is a token gesture by government to say that we have really consulted'

It may be that policymakers within Government do consider more fundamental causes and their associated remedies, and participants were only commenting on external appearances (and several did comment regarding the difficulty of knowing about or even influencing what happens prior to a written consultation being published). The observations by policymakers reported earlier suggest that they are at least as aware of root causes as others and perhaps even more so (e.g. see section 6.2.4). Yet there seem to be obstacles preventing such willingness to consider root causes being integrated into policymaking. Such a difficulty may itself be a sign of a weakness in the policymaking process in that it can work against participation by a diverse set of stakeholders. One may speculate that were policymakers to invite deeper thought, less constrained by whatever the initial framing of the question might be, then the range and scope of responses will be much increased, possibly to the point of being unwieldy to analyse and synthesise – and that hence the policymaker would risk loss of control over the process, the timescale and potential conclusions. Hence, a set of very specific

questions, aligned to a defined published report, and with responses to be given by a certain date allows the policymaker a degree of control – which is perhaps seen by them as necessary if they are to deliver according to departmental and ministerial, political, priorities.

These problems of scoping of policy are not unique to construction. For example, one participant, who has a professional interest in energy efficiency and carbon reduction, was reluctant even to circumscribe policy for construction as this would tend to prematurely shut out potentially useful policy options where policy for buildings overlapped with energy and carbon policy especially at a more local level. The idea that policymaking has become too narrow in its openness to challenge has been confirmed by Hallsworth and Rutter (2011:11), based on extensive interviews with ministers and civil servants:

'In particular, the political dimension of policy making needs to be accommodated rather than ignored.'

So for reasons of complexity and political interest it is understandable if policymakers tend to retain as much control as possible over formal and informal consultation processes, and their outcomes, by careful framing of questions and scope. In the short term – say within the timeframe of the electoral cycle – it may well be that such an approach may even lead to optimum results in terms of visible action, implementation and expenditure (announcements after all, as discussed in section 6.2.5, are of particular interest to ministers and policymakers alike). Yet, for those conditions which are chronic and recurrent – such as many of those within the construction sector – the natural tendency for policymaking processes to be circumscribed or limited means that the opportunity for deeper, critical, thought and more strategic, perhaps more effective, solutions is squeezed out.

This observation is consistent with responses from many participants, though there were also dissenting views which seemed to relate to policy in more specific technical areas which were seen as slightly less political. If there is such a lack of will to delve deeper into causation, there may be a very significant gap in what policy processes for construction look at in the early stages of developing policy. Even within the deliberately strategic, long term exercise which resulted in Construction 2025 it can be argued that there was only a limited attempt, judging by the report itself, to identify and address root causes, though admittedly the report was preceded by extensive consultation and input from a wide variety of stakeholders, as witnessed by the researcher. There was a detailed analysis of the economics of the sector (BIS, 2013) which formed one stream of information for the main report, which also included a SWOT analysis (strength/weakness/opportunity/threat) (HM Government, 2013). Chapter 3 of Construction 2025, titled 'Drivers for Change' opens with the declaration that

'To deliver these strategic priorities fundamental changes are required in the way the construction industry operates'

The report then goes on to specify 6 key drivers for change (image, workforce capability, view of future work, improvement in client capability and procurement, supply chain and innovation). The relevance of all of these six drivers has been confirmed by participants in the present research. On the other hand, in the light of the emphasis here on looking beyond symptoms towards more structural causes, Construction 2025, as one of the most recent and intentionally strategic attempts to look at the industry, does nevertheless appear to conform to the apparent tendency among policymakers to avoid the perils of asking too many questions about more

fundamental causes before moving to prescriptions of actions (the tabulated summary of recommended actions required 6 pages [*ibid.*:65-71]).

In defence of Construction 2025 it can be said that the Construction Leadership Council (CLC), launched simultaneously with the report, was designed to allow and promote participation by a wide group of stakeholders in subsequent work, supplementing CLC membership with several workstreams. Furthermore the report does refer (*ibid.*:45) to the need to understand future work opportunities (and the 'pipeline' of projects), though it is not explicit about the underlying causes and drivers. These two caveats constitute minimal evidence that root causes (and hence structural factors) have been addressed.

A periodic review of the strategy might have provided subsequent opportunities to ask deeper questions. The role of the CLC was specified (*ibid.*:63) as being to '*own and oversee the implementation of this strategy*'. These words sound innocuous and even positive, in that they point to clear ownership and a detailed plan to take action, but they also imply that the strategy is fixed and does not need to be questioned further. Indeed one participant, who contributed to the report and was a member of the CLC in its early years, expressed concern that one of the weaknesses of Construction 2025 was that there was no periodic review process built in – and contrasted this with what would typically happen, in their experience, within industry where such an important strategy would not only be subject to regular periodic review but it would also need to be reviewed in the light of new events – Brexit for example was mentioned by the participant as one such event:

'In company strategy that's what you would do.... If a big change happened to the company you would then go back and change the strategy..... central government..... I think all government actually er government doesn't seem to operate in that way'

So, quite apart from the need for review, which was not a consideration in Construction 2025 but which might have ultimately corrected some of the analytical gaps in the report, the evidence also strongly suggests that, either in preparation for the launch or for later use, there was no deliberate attempt to search for root causes and associated solutions. It is not possible to be certain that these gaps damage the attempt at reform represented by Construction 2025 but it seems likely that some of the potential value has been lost.

In conclusion there is evidence, both within participants' responses and from the observations made here concerning the long term strategy Construction 2025 and other sources, to support the idea that policymakers may tend to deliberately frame policy problems in such a way that a licence for stakeholders to explore and address root causes is not available. There may even be a fear that both root cause analysis and review pose too great a risk of destabilising policy planning, in the eyes of policymakers and politicians. A secondary conclusion is that stakeholders, who might have a more enduring personal stake than a civil servant or minister, and who therefore should be most interested in root causes and review of strategy, probably need to be prepared to fill these policymaking gaps themselves rather than passively waiting for Government to lead on strategy for the industry.

7.1.3 Structure – so what ?

The identification of a number of candidate features as structural might be taken by some to imply that policy designers and stakeholders should see such features as fixed, inevitable and hence requiring no action to address them directly. However if each is considered individually there are potential mitigating steps which can be taken, short of an unlikely root and branch reconfiguration of the national political economy (as one participant would have liked to see). For example, one can speculate that mechanisms might be found for improving representation of the absent groups – indeed some participants did so, referring to the use of social media as a way of giving voice to new groups and engaging with them. Yet the reason for considering the structural features of context helps to shift any proposal for mitigation onto a strategic, long term and perhaps prioritised basis. For example, two participants expressed the view that the impact of ‘boom/bust’ on the sector should be mitigated by counter-cyclical public sector spending. This would not eliminate the structural feature of the association of construction with GCFC and with the creation of long term assets, or the structural tendency in the economy towards rapid deceleration of spending on construction when approaching recession, but counter-cyclical spending would *prima facie* be capable of offsetting some of the adverse impact of boom/bust cycles. Also, the public sector may have a patchy influence on the different sub-sectors of the construction industry (being more effective in respect to infrastructure spending but less so elsewhere), so the proposed measure, of counter-cyclical spending, would not be capable of transforming the whole industry. But in principle the measure is an illustration of the potential of designing solutions which offset structural factors.

A further insight offered by this kind of PEA approach is that, because the habit of thought developed over successive past economic cycles is to rapidly cut back on investment during a downturn – amounting to a rule of the game or ‘institution’ as described under the next heading - then to allow a new institution to be cultivated, the mitigating measure would need to be in place through several economic cycles. In conclusion, the identification of a structural factor should cause the policymaker to design policy solutions which need to be more strategic and enduring than would otherwise be the case.

7.2 Institutions

‘Institution’ like ‘structure’, is a word which carries different connotations for different audiences. Conventionally in PE and PEA literature the word is taken to refer to

‘.... the humanly devised constraints that structure political, economic and social interaction’ (North, 1990:97).

These constraints may be informal or formal

‘....rules, norms and conventions governing human interaction’ (Booth *et al.*, 2009:26).

The dictionary definition refers to a sense of establishing or arranging, with a Latin root meaning ‘to set up’ (*The Shorter Oxford English Dictionary*. 3rd edn, 1983). The commonly

used meaning of ‘institution’ referring to a formal organisation of some kind is not the usage intended by most working within PE/PEA. However this secondary meaning is one which becomes useful – certainly within the world of construction policy but elsewhere too – as soon as attention is turned to the many organisations which have some kind of an interest in policy for the industry (some of which even have ‘institution’ in their registered names). Whaites (2017:12), who wanted to avoid PEA being the realm only of specialists, refers to the DFID definition which combines both meanings, namely the ‘rules of the game’ as well as the organisations. In the present research the narrower PE/PEA meaning is adopted, as it is important to an understanding of the theory of PEA, unless the context makes it clear that formal organisations are referred to.

As reference has already been made (section 7.1) to the work of Giddens (1984) in the area of structure, institutions and agency, an additional observation is necessary. Giddens (*ibid.*:375) refers to institutions

‘...as chronically reproduced rules and resources’.

Therefore Giddens, whose work is not normally linked to research in the field of political economy, used ‘institutions’ in a sense which approximates to the narrower view common in PE/PEA. In both fields the word is used to capture the sense of evidence of rules of behaviour and interaction between people which to some extent both endure yet are simultaneously also plastic in the sense that they are subject to change as agency evolves in a perpetual feedback loop (see Buse, 2008:13).

Hence the idea of ‘institutions’ as used here is one of the building blocks of PEA. The immediate emphasis is not on cause as such though there is interaction with agency and with structure (in the PEA sense of the word) in a constant dynamic change process, as depicted in the PEA model (Figure 9). Participants may not be aware or conscious of such rules of the game until they begin to explore and reflect upon different aspects of the industry. Therefore, as in the case of ‘structure’, when interviewing participants, questions around institutions need to be asked indirectly and the responses need to be interpreted in order to arrive at a sense of what the rules of the game might be. In a sense much of the material described in the previous chapter (6) relates to observation of institutions. Before discussing the significance of the concept, a brief consideration of such observations is necessary.

7.2.1 Institutions – examples

7.2.1.1 Institution: Low quality, gaming the system, poor governance ? (1)

Two participants felt that there was widespread disregard of standards especially building regulations, even to the extent that gaming of compliance with regulations is a significant problem. Three other participants felt that the lack of enforcement was a major cause of such disregard of standards – though the situation is so well-established that it has become cultural (institutional). Several participants saw the tragedy of Grenfell Tower as an extreme example of what has gone wrong in working practices and the recommendations of the Hackitt Review

as potentially representing a way forward to the remedying some of these problems. One participant commented:

'So you know as legislation gets enacted if that enforcement mechanism isn't also enacted, and the right resources and priorities put there then it's not going to get enforced.'

The same participant felt that sometimes the lack of enforcement was intentional on the part of policymakers, giving the examples of Site Waste Management Plans and the Modern Slavery Act, resulting in policy measures having *'title without teeth'* (in the words of another participant). But the participant pointed out also that enforcement may not be a panacea and that what was needed always was a strong business case behind the change in question and went on to suggest that in effect strong enforcement will be required if the business case is weak, and vice versa. Another participant, familiar with policy networks, made a similar point:

'it's got to work with the grain of..... It's got to align with what people want to do.....erm If it doesn't then it's got to be.... it's going to need really good enforcement, compliance, enforcement.'

The same participant nevertheless felt that the prevailing attitude towards regulation was not necessarily one of non-compliance as such but, perhaps as significant, that it amounted to deliberate compliance with the letter while contradicting the spirit – often with support from construction professionals:

'they know what the compliance is but they are they arethey pay a lot of money and they employ a lot of clever people to find ways round it, and I think that's where construction stinks.....'

The same participant cited the Hackitt review as having uncovered the evidence of gaming of the system. Another participant, a policymaker, also drew attention to Hackitt in answer to the interview question concerning the quality of governance in the industry, a wider question than just compliance.

Are issues of non-compliance and gaming of the regulatory system specific to construction ? It would seem unlikely that a single industry, especially one with porous boundaries and which arguably is so widely connected into the broad economy and its various economic sectors, could on its own develop a culture which differed markedly from the surrounding milieu. One participant pointed out that other industries had suffered their own scandals – for example 'dieselpgate' where the automotive industry's false claims regarding tailpipe emissions were found out. Others referred to the banking scandals which had emerged in recent years in the UK. If, as some might argue, the construction industry patient is suffering from some kind of illness then the illness is one which also infects other sectors, implying that a remedy aimed purely at one sector is not likely to achieve permanent recovery.

Continuing with the theme of non-compliance, one participant was concerned about the way in which Building Control departments had been weakened, describing the system as *'wretched'*, and also regretted the passing of the role of Clerk of Works as representing the loss of one further line of defence which might have bolstered quality. The same participant, and others, also blamed the 'Red Tape Challenge' as forming part of this process of hollowing out the policy structure supporting quality in construction (e.g. see BIS, 2016)

A policymaker felt that Grenfell revealed that, in relation to building control:

'the rules aren't the problem, the lack of enforcement is the problem.'

The same participant was also very critical of the lack of compliance, within public sector contracting, with public sector standards and rules affecting construction, and a lack of enforcement:

' [speaking about a prevailing attitude] I will sign up to all of these contractual provisions, I'll flagrantly ignore the ones that it doesn't suit me to observe and I know I'm not going to get picked up on this and I am not going to get challenged and no-one is going to review what I'm actually doing'

The same participant was also highly critical, as a civil servant, of the Red Tape processes, likening them and their champion to a '*fascist*' regime which was very unhelpful to good policy.

Another participant supported the notion that regulation and enforcement were essential to seeing quality improving. They also supported the idea of mandatory licensing of businesses engaged in building works as providing a way in which poor performing firms could be prevented from operation.

So there was general agreement that construction has a serious case to answer regarding compliance possibly amounting to gaming of the system and poor governance resulting in persistent low quality. There was a tendency to agree that such a flaw was far from unique to construction, though it may be a particular feature of the industry in that many clients are 'occasional' so that they may be at more of a disadvantage compared with clients in other industries. The 'occasional client' problem was discussed at greater length in section 6.2.6 (and 7.1.1.4): as it is something which is probably beyond the control of policymakers to change, it seems to amount to a relatively fixed feature of many, but not all, sub-sectors of the industry and hence may amount to a structural feature for most subsectors. As an instance of structure, mitigating policy will be required if negative effects are to be avoided. One participant, a policymaker, expressed a similar sense of an embedded imbalance in bargaining power between client and supplier in terms of a '*market failure*' of the construction market (especially in relation to the market for supply of housing) as one which arises from a '*difference in information*' between the buyer or renter of property and the developer or contractor, with the mitigating policy therefore being Building Regulations.

From such evidence it is possible to summarise the chain of causation at work, as a narrative:

Symptom or problem: poor quality, low compliance

structure: Information difference, occasional client; low political commitment to regulation (linked to LME status)

policy mitigation/intervention: Building Regulations

Institution: non-compliance, poor quality, low level of trust by potential clients; lack of enforcement

Agency: low motivation by contractor/builder/developer to comply or achieve quality; reluctance of potential clients to buy or place contracts

This explanation of the 'low quality' problem therefore hinges on the idea that a structural problem requires an equally secure mitigating policy measure (Building Regulations which are enforced) but that weak enforcement – and a culture of deregulation and light-touch enforcement (both of which tend to be associated with the structural features of an LME) – have a neutering effect on the mitigation with the result that there is a reversion to an unimpeded influence of the structural features i.e. the re-emergence of symptoms or institutions such as poor quality and non-compliance/gaming by the developer/builder/contractor and, on the part of potential and actual clients, reluctance to buy. One participant expressed the dampening effect on demand in the words

'Oh bugger I've....got to get the builders in'.

If this analysis is correct – and at the least it could be the basis for discussion among stakeholders – then the required change appears to be simply enforcement as a minimum and possibly additional regulation. But the analysis also suggests that there will be structural resistance to that approach as it cuts across the idea of deregulation and the associated idea of light-touch enforcement both of which can be seen as products of an LME. So, interpreting the problem in more political terms, while the case for new mitigating policy (in this case, better enforcement) is strong, there will be political forces which will resist this – one could even postulate this will be manifested in a tussle between Treasury (the champions of free market, low red tape, low regulatory costs) and those within MHCLG championing the need for higher quality, does-what-it-says-on-the-tin housing. There may be other differences ('interests', in PE terms) within Government: for example the Home Office have an interest in fire safety; HSE, an agency whose sponsor is the Department of Work and Pensions, will also have an interest in seeing a successful resolution of fire and building safety issues. Additional evidence for this kind of intra-governmental tension was found in a policymaker's remark that *'government is not as monolithic as people think'*, and they were strongly aware of differences of view on regulation, for example, within Government.

A conclusion regarding the need for enforcement and regulation would be entirely consistent with the recommendations of the Hackitt Review (Hackitt, 2018) – as indeed was remarked by one participant. Hackitt pointed to a failure at many levels within the industry (design, build, operate, maintain, refurbish etc.) to deliver a product which meets even basic requirements of fire safety. The review proposed fundamental changes to the industry: a set of recommendations included beefed up regulatory measures for buildings of more than 10 storeys, improved enforcement, and other measures including the need for industry to own and update the technical guidance; some of her recommendations did include other parts of the industry (*ibid.*:19).

Has the battle therefore been won in terms of restoring, or indeed creating, an effective context for delivery of quality and all its consequences? Hackitt would clearly hope so, at least for buildings of a certain type. On the other hand there is much policymaking and debate yet to be had before the policy-set is in place and active in terms of implementation. Secondly, even if the proposed measures are completely successful in addressing the scope of Hackitt's brief, it has to be said that this only deals with one part of one sub-sector (namely, higher buildings for domestic occupation). A criticism of the situation as it stands is that Grenfell has revealed, or confirmed, flaws within the industry which are rooted in a chain of causation affecting a much wider sweep of the construction sector – and indeed a wider sweep of society in general. There is no evidence from the present research that the issue of low quality and poor

compliance, is restricted to either safety issues or to buildings above 10 storeys. (The 10 storey threshold was in fact determined by the inquiry team as being the priority category, while expressing the hope that the new regulatory regime would in time be applied to other categories.) So it can be argued that Hackitt, even though it may well turn out to be a major milestone in the history of the UK construction industry, is addressing a rather limited brief yet exposing the flaws of a much wider segment of the industry.

From the policymakers' point of view they may well have found it necessary to frame or limit the problem to be addressed by Hackitt in such a way in order that an overwhelmingly serious event and its consequences could be addressed with speed – in order to respond to political pressure for action without being accused of making what many might have seen as an open and shut case for change into a long drawn-out complex and costly inquiry. Indeed this accusation, of an unnecessarily lengthy process, has been made anyway, even within the context of the limited brief chosen (Booth, 2019). Yet the event and the analysis to date offers strong evidence of flaws in the wider industry (at least in the 'Buildings' sector) which as such will also require a strategic programme of change. The notion that framing a problem is itself a very political and consequential act is not unique to PEA or even politics (see section 7.1.2), and again is reflected in Bacchi's (2012) approach of '*What's the problem represented to be ?*'. Similarly, it is reflected by Hallsworth, Parker and Rutter (2011:86) whose observations of policy processes supported the idea that

'[T]he key point is that analysis starts from a position where politics has constructed certain problems or framed others as 'non-issues'.

They were quoting Bachrach and Barantz who

'...argued that "non-decision-making", "the practice of limiting decision-making to 'safe' issues" is one of the major activities in policy making yet usually goes unnoticed'.

7.2.1.2 Institution: Low Quality, Gaming the system, Governance ? (2)

The preceding section concentrated on a possible institution associated with poor quality, low levels of compliance and possible gaming of the regulatory system and, after expanding the analysis to recognise the rest of the chain of influence (on behaviour) including structural features, went on to consider mitigating actions and how these might affect outcomes.

Analysis of participants' responses however indicated that perception of this feature of the industry, or group of features – which for the moment can be named 'low compliance' – is not limited to matters immediately identified with building regulations and also that the spectrum of behaviour (from ignorance to conscious non-compliance to gaming to poor governance) is seen elsewhere too. This section explores the extent to which participants' responses support the idea that these patterns of behaviour are replicated in other areas of construction activity. As indicated in the previous section, many if not all of these features can be triangulated in the Hackitt Review (2018).

One participant saw a cynical attitude to compliance as being linked to pervasive poor ethics in the industry:

'And as for the ethics of the industry I I just think it's..... I don't think there are..... There's certainly not a view all the way through the industry of 'do the right thing'. I mean I don't think the industry would understand the question of 'is it right'..... They'd go 'is it legal'. So they will do things that you'd go [intake of breath] that's not really right and they'd 'it's legal'. Now to me that's the difference between being a profession and not.... '

They saw this disregard for ethical behaviour as being driven by profit, ease and passing the risk to someone else:

'...it's never [about] managing the risk it's abdicating the risk. Or as somebody said you make everybody responsible so nobody is responsible. And generally move the risk onto the person least able to protest (yeh) rather than moving the risk onto the person most able to manage it.'

Another participant, from the supply chain, speaking in the context of the aftermath of Grenfell, the associated review of regulation processes and the role of 'crisis' in triggering change generally in the industry, was concerned about self-serving lobbying:

'and post- that crisis what you see is erm you know the first thing you see is people protecting positions and lobbying for advantage... You think that that isn't going to be the answer to what to what happened there so we'll see...'

Hackitt specifically criticises such behaviour encountered during the inquiry proceedings (*ibid.*:2):

'While conducting this review I have had personal experience of the high level of self-interested advocacy which hampers good independent decision-making in this sector, and gets in the way of much needed progress to a different set of behaviours'

Whether '*self-interested advocacy*' is a part of gaming or a separate species of unethical behaviour is perhaps arguable. However it does seem to be part of the general group of behaviours indicating a less than committed attitude towards regulation, compliance, and ethical behaviour - in this case - within lobbying or advocacy³³.

One policymaker felt that the negative behaviours identified by Hackitt were replicated in other parts of the industry, including an unconcerned attitude towards rules, say for procurement and contractor payment, and '*just generally in relation to the way in which contractors are managed*'. The same participant felt that, quite apart from any issue of personal or corporate ethical behaviour, one of the causative factors in this disregard for rules lies in the '*lack of knowledge and expertise*' across the board amongst the public sector and contractors – something which other participants were also concerned about and which reflects the historic 'hollowing out' of clients and contractors referred to by Green (2011). The policymaker was of the view that, in terms of the malign pairing of non-compliance and weak enforcement, across many parts of the industry one of the common factors involved in recent years has been simply a lack of expertise and a lack of knowledge.

³³ The first Chief Construction Adviser to the Government (2009-2012), Paul Morrell, would repeatedly say in public that the industry was '*fragmented, confrontational and self-serving*' and that this set of conditions was at the root of much that was wrong with the industry.

Hackitt reached a similar conclusion (i.e. that availability of knowledge and expertise is not commensurate with the tasks of execution and enforcement), adding that, based on the regulation-mapping exercise carried out as part of the review, the problem is exacerbated by the complexity of regulation, the multiple sources of rules and the increasing complexity of buildings (*ibid.*:6,12,15,16,41,74,77,84 etc.). Hackitt developed the argument further in concluding that the complexity and ambiguity of regulations actually fostered gaming of the system (*ibid.*:84). The challenge of complexity (or, more accurately, of the confusion which may arise from complexity) in the industry generally was also referred to by a participant who was particularly concerned about the area of innovation and the incorporation of technology new to buildings which may already be covered by other regulations and standards but not necessarily by building regulations: this in turn may illuminate some of the barriers against innovation as well as compliance itself.

Looking at what participants had to say regarding cheating indicates that there were a number of concerns. For example one participant felt that abuse of terms of payment and retention payments within public sector contracts by clients and Tier 1 contractors led to SMEs avoiding involvement in such contracts, preferring to search elsewhere for work even if this meant a smaller turnover than would otherwise have been the case. Another participant referred to a tendency in the sector towards cheating being present at a high organisational level within the industry, and to the Carillion collapse as revealing self-serving behaviour. Others remarked on the extreme financial rewards enjoyed by Persimmon's chief executive officer, much of which appeared to be a net effect of diversion of public Help to Buy funding into personal benefit (O'Connell, 2019). Hence, looking for evidence of an 'institution' of cheating and gaming begins to suggest both that the concept may need to be broadened to include the idea of a more fundamental institution linked, not just to individual or periodic instances of cheating, but to a more all-pervasive approach to business, and the possibility of a deliberate business strategy or design by some actors (so that, in such instances managers are deliberately and repeatedly setting adverse terms of payment or retention; or directors set out to maximise personal gain at the expense of employees, sub-contractors, or others). Clearly, more evidence is required before sound observations can be made regarding the prevalence and nature of such behaviour, and whether it is confined to certain businesses or to the sector. Nevertheless, in terms of any attempt to characterise a set of behaviours the data do suggest that to limit the scope of an institution as being one of cheating and gaming – that is, implicitly suggesting that this is exceptional rather than endemic behaviour – might mean that a larger problem of corporate governance and personal values, of which cheating is just one part, is left under-explored.

7.2.1.3 Institution: Low Quality, Gaming the system, Governance ? - Summary

From participants' responses there is strong evidence to suggest that there are widespread '*...chronically reproduced rules and resources*' (Giddens description of an institution [1984:375]) associated with low quality, non-compliance and gaming of regulatory rules which possibly also is a symptom of poor governance. Many of these observations also reflect what has been said about the industry in other contexts. Most importantly, as a consequence of the Grenfell Tower tragedy, many of them can be triangulated by reference to the Hackitt report (2018). The influence of features such as of lack of enforcement, lack of expertise and

complexity of regulation has been identified. Other observations – in relation to questions of a more immediately financial nature – are supported by events surrounding the collapse of the contractor Carillion and the recent performance of housebuilders. More research would be required to distinguish between different possible institutions within this group, or to determine if in fact they are all part of the same broader institution, possibly to do with prevailing ethical behaviour. The precise expression of the problem is likely to vary between sub-sectors of construction. It is unlikely to be a feature solely of the construction industry, implying that remedies which only address construction are unlikely to lead to sustainable change. However, it does seem reasonable to at least group these features together, for the purposes of the current research, on the basis that they tend to lead to similar consequences in different parts of the industry.

The examination of a number of features as potentially being institutions, in PEA terms, has led to insights concerning the way in which different features are connected by routes of influence, and has led to a consideration of what compensating measures might be appropriate based on that analysis. It has shown how one recent major policymaking exercise (Hackitt) has addressed a specific area where change has been forced following a tragic event. The discussion has led to the need to remark upon the limitations of the brief given to Hackitt, and how ‘politics’ might have influenced the way in which the brief was framed. This observation of the potential impact of political influences opens up for inquiry other aspects of the political context, some of which may amount to institutions, and these will be considered in the next section.

7.2.1.4 Institution: Features of Policymaking ?

There may be several features associated with policymaking which belong to the category ‘institutions’, some of which have already been touched on in earlier sections: for example the use of problem framing as a way of controlling policymaking (7.2.1.1). In answering questions around implementation of policy one participant, who had worked in both the public and private sector, made several comments regarding their personal experience of how civil servants (and, by implication, Government itself) treat policy and policy announcements (see section 6.2.5). For example the same participant was clear that there is a strong tendency to focus on the announcement, rather than the implementation, as the key outcome of policy processes. Two participants were both very concerned about the lack of review of policy after implementation, and felt that this was a characteristic weakness of Government which led to negative consequences for the effectiveness of policy:

“I think the biggest weakness is is that review of ‘has it worked’ erm ‘what went well, what did badly?’...”

A lack of review would compound any lack of emphasis on implementation and might lead to avoidable flaws in the next round of policymaking. There may be structural reasons for such features, as discussed earlier (section 6.3.1, 6.3.3 etc.), but the combination of two possible institutions (low emphasis on implementation and weak review process) would amount to a severe impediment to the policymaking process.

Much of this resonates with the findings of Hallsworth, Parker and Rutter (2011) who based their findings on extensive interviews with policymakers. For example, they described a chronic separation between the making of policy and its implementation, which might in itself amount to an institution:

'As one civil servant put it, there are few incentives to consider whether the policy design is realistic – the sense is that “if you’ve designed the policy you’ve done your bit, you’re perhaps moving on, you’re not there to then be held accountable for whether it was well delivered or not.”’ (ibid.:43)

A caveat here is that generic processes associated with the making of policy do receive attention from within Government, and care needs to be taken over interpreting historic findings and their current relevance. For example, since the report by Hallsworth, Parker and Rutter (*ibid.*) was published, Government has revised the so-called Green Book, which covers 'appraisal and evaluation' and other aspects of policy (HM Treasury, 2018). The 2018 edition of the Green Book was the first review and updating of this guidance to Whitehall policymakers since 2003. The updated guidance may to some degree lead to some known flaws in policy processes being addressed. There is little information available regarding the degree to which internal Government processes may have evolved or may be in transition through training and development programmes. Nevertheless the data collected with the present research suggests that the conclusions of Hallsworth, Parker and Rutter (*op. cit.*) are still relevant.

Returning briefly to the issues of low compliance and cheating discussed in the preceding section (7.2.1.3) there may be a link between that institution and that of flawed implementation and review. If policy making proceeds in separation from implementation, and if it is further protected by a weak review process then over time policy will accumulate which is either unenforceable or just unenforced. So while there may be an argument to support the idea of two identifiable institutions, in fact one may in part be caused by the other.

While these two institutions (namely, cheating and poor implementation/review) may each have a number of structural causes, one which they seem to share is the way government in a LME (especially one with a first-past-the-post electoral system like the UK) may pay undue attention to short term political considerations rather than to a more strategic, long term view where dissenting views may have more opportunity to be heard and even contribute to policy – some of which has been discussed in section 7.1.2. Once again, an investigation into the classification of specific institutions has evolved into a consideration of influences and causal links, and matters of structure and agency have been brought into play.

In terms of PEA theory it seems that the existence of an 'institution' can barely be determined in isolation from a broader context, and that one element of a network of influences cannot be described without also portraying its immediate context at least. Furthermore while there may be a general tendency for lines of influence to move from structure to institution to agency, it seems that elements of the same category may need to be seen in combination (as in the present case where 'cheating' might interact with 'flawed implementation and review'). Once the network of influences begins to be uncovered and described, the role of theory starts to become diminished: theory becomes secondary to the description. This bears comparison with Giddens' idea of the sensitizing role of theory (1984:326), discussed earlier and '*nothing more*' (*ibid.*).

7.2.3 Institutions – summary: cause or effect ?

Asking the question about whether a particular observation made during interview reveals a feature, whether structure, institution or any other entity associated with a PEA approach, may seem to be a somewhat dry process of taxonomy conducted after all the more significant interpretations of data have already been made. However in the case of institutions, this step in the process has required a review of earlier interpretations, resulting in further interrogation of the data and also a search for sources which may triangulate emerging findings.

In the case of 'structure' a nuance was developed to the effect that classification of some features is not necessarily absolute (because some contextual aspects may only assume structural characteristics in that they are not susceptible to change in the short term, but may be malleable in the longer term). Similarly, there is a parallel difficulty when considering classification of a feature as institution or as mere evidence for an institution. For example, it is not immediately obvious whether there is an 'institution' of disregard of standards, or one of disregard of quality, or of gaming of the system. Lack of enforcement did seem to have a role to play but in itself may be a vehicle by which lower standards are allowed to become embedded, rather than representing an institution ('poor enforcement') in itself. In addition, if lack of enforcement is only a vehicle, then a search for the primary cause(s) is required. Certainly, 'lack of enforcement' is unlikely to exist in isolation, without some other factor or factors which at least permit its continuance and repetition.

In the area of building regulations, complexity and ambiguity are seen by some observers as part of the context of weak enforcement and compliance together with weaknesses in technical and professional competence. Evidence for a more fundamental cause may manifest itself, and may need to be sought, in the form of other patterns of behaviour as indeed seemed to be the case as discussed in the section above on policymaking (such as the twin institution of 'flawed implementation and review').

Such patterns of behaviour, where they have become embedded, perhaps cultural, practice may amount to matters of institution. And these institutions may themselves point towards structural causes – in this case apparently associated with UK practices such as election cycles and also the interests of politicians and civil servants and even the idea of a Liberal Market Economy with a first-past-the-post electoral system rather than one with a culture of politics and decision-making which is more consensus-based. Once again, the effort to classify tends to force the researcher to question the data, the observations and the interpretation made so far. It forces a more rigorous search for cause and effect and in so doing can bring to the surface additional insight – which has the potential for suggesting areas to be examined for reform. As with 'structure' some subjectivity is present, as the degree to which a root cause analysis is pursued depends on the data, resources and time available, and on the nature of the problem – and even possibly the interests of the researcher. Finally, the exercise of categorising PEA elements was barely possible without reverting to description, especially of the network of influences – again lending weight to Giddens' idea that the role of social theory concepts is that of 'sensitizing devices, nothing more' (*ibid.*).

7.3 Agency

The idea of 'agency' is common to a number of academic disciplines. Hudson and Leftwich (2014:6), in writing from both a Political Economy and a Political Analysis perspective, define agency as

'...the ability of individuals, organisations and groups of collective actors to consciously deliberate and act strategically to realise their intentions...'

Agency seems to be a less controversial concept in the literature compared with structure and institution, and hence the meaning of the word offered by Hudson and Leftwich represents a typical usage. This meaning in itself is helpful as a starting point but it avoids discussion concerning the extent of agency which any one actor might possess.

The influential Giddens (*op. cit.*), while not being a work written from a PE or PEA perspective, includes a large number of definitions but not one for agency as such. Giddens does however include a discussion of the idea (*op. cit.*: 5-16). Indeed, one way to view his work is as an extended exploration of the extent to which social actors do in reality possess a degree of autonomy over their decisions and actions, and the extent to which they are constrained by other influences. Giddens argued that there is a dynamic relationship between agency and what he termed structure (his definition of 'structure' being different from that used in PEA; see section 7.1), and this aspect has been summarised by Buse as

'...agency shapes structures, which in turn condition agency...' (Buse, 2008:13)

Hence the bare definition of agency begs the question of how much agency, as capacity to act independently, a social actor in reality possesses. Such a question can be seen as being at the heart of much social research including the present task of understanding CIP. Writing from a PEA perspective, Harris (2013) includes a glossary of terms but only refers to agency in passing, yet explicitly recognised the enduring question of 'how much' agency by noting that

'Actors will vary in their ability to exercise agency, in large part because of the particular balance of power relations at play (economic, social and political).' (*ibid.*:6)

In terms of a PEA approach to understanding agency, perhaps the most useful way to view it is as part of the system which comprises structure (in the PEA sense of those features which either cannot be changed or which are less likely to change), institutions (which may constrain agency but which may themselves change over time) and agency itself in the sense that an individual actor may have a degree of autonomy or power to act either in accordance with norms or differently from them. The visualisation of PEA theory (see Figure 9) is an attempt to capture this dynamic, interactive, network of influences and outcomes. While there is insufficient space within this thesis to accommodate an extensive discussion of agency, it is helpful to consider some of the implications of the idea when attempting to interpret the research data.

7.3.1 Using agency to challenge observation and analysis

At its simplest, the idea of agency acts as a reminder to consider that the focus of research is not merely an impersonal mechanistic process which can be associated with a predictable and repeatable outcome. It obliges the researcher to consider the supposed system from the point of view of the individual actor (whether the actor is a person or a group of people), with all the variability of individual knowledge, experience, interests, capacity to determine intentions and capacity to act either in accordance with observed and assumed norms or, for whatever reason, in contradiction of them.

On the other hand, the process of data analysis may work against such an actor-centred approach. In breaking up the data, labelling it and aggregating it in the effort to seek patterns and apparent rules, the extent of the autonomy of the individual actor when faced by their own unique set of circumstances may tend to be overlooked.

Yet PEA, at its root, is concerned with both the gap between policy intention and policy outcome and also the identification of viable pathways for change rather than stability or repeatability. Therefore implicit within PEA is the idea that agency can be sufficient, or be enabled to be sufficient, to permit the network of actors to respond in a different way to their environment, with different results, than hitherto. It recognises that, not only is there a dynamic interactive process at work which influences outcomes but that, if the actors can be enabled to discover and understand the systemic effects, they may be able to change how they and others participate and hence change the institutions in a conscious rather than an unconscious way.

7.3.2 Agency - example

The previous section (7.3.1) made the case that ideas about agency can be used as a means of challenging the researcher to re-examine emerging findings. One specific example can be used as a way of illustrating such a process. In section 7.2.1.1 a simplified narrative was offered as a way of describing how, in the context of an identified group of problems apparently associated with low quality, the network of systemic influences could be seen as having certain outcomes in terms of agency as follows:

'symptom or problem: poor quality, low compliance

structure: Information difference, occasional client; low political commitment to regulation (linked to LME status)

policy mitigation/intervention: Building Regulations

Institution: non-compliance, poor quality, low level of trust by potential clients; lack of enforcement

Agency: low motivation by contractor/builder/developer to comply or achieve quality; reluctance of potential clients to buy or place contracts'

Clearly, in describing outcomes in this way there is a risk that the analyst is seen to suggest that such outcomes are inevitable and that they follow automatically from the elements of the narrative which have been set out. The idea of agency is useful here to remind the analyst that, while the systemic influences may be powerful, the individual actor is always faced with a decision as to how to respond. On average it may be argued that the stated behaviours are those which will be observed as a consequence of the system summarised by the narrative. At an individual level, which is where change ultimately emerges, in practice the narrative might look quite different: experience is individual; beliefs, values and interests vary; their network of contacts in the industry and elsewhere varies; personal capacity and inclination to act varies. Therefore the individual actor may choose, for whatever reason, to act differently from the previous norm. For example, one particular builder may determine that they will as a matter of business strategy target a market-leading performance of quality as a matter of competitive advantage. Or, a client may devise ways contractually to offset the risk of poor quality by the use of some kind of quality assurance scheme, thus enabling the client to have greater confidence to buy.

What evidence is there from within the interview data to support this idea of variable agency? Several of the participants remarked, at the 'summing up' stage (question 14 of the interview guide) on how energising the interview process had been in leading them to rethink some of their approach to change in construction, for example:

Participant: 'And I think so I think you've been to loads of these things over the years I guess there's a fear that you can turn up and be a bit of a passenger in some of these things [??] But how effective have you been.... And then there are outstanding individuals that have the leadership. So that's one thing I'm going to start thinking about. Because I'm sure someone's....'

Interviewer: 'well that's interesting because that's kind of a personal reflection because it's easy to kind of walk out and look outwards rather than look inwards a little bit.'

Participant: 'yeh, so that's something I'll take away and think about that's interesting.'

Clearly, it was not the intention or expectation behind the interview design that such an outcome would occur, but the very act of facilitating reflection by participants on their experience in a relatively structured way seemed, for some of them, to lead to a reassessment of their own role and what they might be able to do differently.

Another participant, who had been active in industry change processes during their career, made remarks which tend to support the view that there are actors (individuals and organisations) within the industry who embrace the idea that there is value to be gained by acting ahead of the herd, or ahead of the benchmark standards of legislation:

'....you've got the basic legislative requirements for energy performance and then you've got ones that want to do better so [then] you have BREEAM as a policy that helps them sort of you know get a bit better. it's like you want, you know, we've got a few catwalk examples [laughs] but we need many more high street examples and so high street examples to me ...the only way you'll get [those] high street examples is, you know, a major driver is policy and legislation....'

'I think regulation is important but the problem with regulation as well.... it tends to work to the lowest common denominator doesn't it...'

Another participant was anxious to stress that a root and branch overhaul of the UK's entire political economy was required in order to address the many flaws in construction processes and outcomes, which led to the following exchange:

Interviewer: 'What it all suggests is I'm actually being too narrow in my approach in that the solution to this crisis situation – you're not unique of course (yeh yeh) in saying that construction is in a crisis - the solution is way outside the power of the whole of the construction industry, really'

Participant: 'but it isn't you see (okay). The power is with the individual, in my mind, in my view, it's just the timing of that individual's view and the willingness of people to hear to listen.'

The participant had a strong view of the set of changes they would like to see, and indeed was able to describe how in their career they had attempted to influence change in different contexts. The relevance here, to the discussion about agency, is not to lay out the particular set of solutions proposed by the participant, but to offer this as evidence that actors are not predestined to always react in a predictable way (as may be implied by any analytical model) but that individuals can and do behave in unique ways – in this case both in offering a daunting view of the scale of the challenge but also in offering a way forward in which even a single individual may act against the received flow of behaviour.

7.3.4 Agency - summary

The idea of agency may receive too little attention in the PEA literature. It may be such a commonplace and even obvious notion that it is passed over quickly in order to address more dramatic parts of the analysis and describe sweeping social trends or influences. However, within agency, and its use within PEA, may lie some of the opportunities for understanding how change occurs either because of, or in spite of, systemic influences. The reflection included above should cause the researcher to consciously offset the tendency for aspects of individual agency to be overlooked during analysis.

There is one further point to make regarding agency. If the role of the individual, and their agency, is so fundamental to understanding how systems and behaviours either change or do not change then the participation of a diverse a set of actors within PEA may not only be helpful but also essential if outcomes are to be of any value. This observation may be one reason why PEA writers (Whaites, 2017:10) tend to observe that PEA should ideally be one where the activity itself is part of the process of change rather than PEA being simply a one-off exercise by a lone analyst.

Summary of Chapter 7

Using Political Economy Analysis Theory

In terms of a PEA perspective the process of analysis reveals a complex network of influences, and mechanisms or processes whereby behaviour (that is, agency) is shaped, even if by neglect or omission. It may be feasible to show the network in graphical form, but a single graphical depiction would imply (for the observer) a level of stability and certainty which would be misleading. The form of the notional network is in part determined by the political choice of the 'problem' at the outset and the network is also undergoing constant change, over time, from various sources. Therefore the network probably does not exist in a tangible, absolute sense or as one which can have a fixed taxonomy. The impact of the various sources of change on any one actor will vary according to the local context experienced by that actor. Giddens (1984) might say that each decision by an actor to some degree changes the context for the next decision. Through the medium of many, perhaps thousands, of incremental changes, the systemic network of influences constantly evolves with different factors becoming more or less prominent over time.

Giddens (*ibid.*:326) proposed the use of structuration theory, and competing theories, as a '*sensitizing device*', and recommended a middle position between on the one hand '*always operating with a welter of abstract concepts...*' and, on the other hand, suggesting '*...we can get along very well without ever using such concepts at all*' (*ibid.*:327). This discussion of the benefits and limitations of the use of PEA, and in particular its taxonomy, does seem to bear out the need for this balance, and the idea that its value is as a sensitizing device, and as an heuristic, rather than as a mechanistic, tool. Specifically, the use of PEA allows and encourages policy problems to be seen as not just technical (which they may well be) but also as political. Use of PEA is a means of bringing out the political constraints and enablers which otherwise may be overlooked. The conscious inclusion of political considerations within policymaking processes is not primarily a weakness nor a strength but, according to Hallsworth, Parker and Rutter (*op. cit.*), politics is an inseparable part of policy and, while political processes may sometimes slow down policymaking they can also bring benefits – for example

'... even where evidence is incomplete, ambiguous or contradictory, policy decisions still have to be made' (*ibid.*:86).

Returning to the PEA process itself, the attempt to give more prominence to theory by beginning from the headings of the main PEA themes (structure, institution, agency) is valuable in leading the researcher to challenge the developing analysis, and to return to a deeper interrogation of the available data. But the process was difficult to adhere to strictly as the process of classification of contextual features entails the need to question causation and influence, which in turn stimulates further analysis of links to structure and agency, and indeed leads to new insight. Therefore, utilising the theory in this way appears to steer the researcher towards too literal interpretation of the theory, that is, to one which would be more literal than the nature of the material being analysed is able to bear, and which – if taken to its logical conclusion – would stifle rather than stimulate inquiry. It follows that the researcher should be aware of this risk, and should use the theory to challenge emerging interpretations rather than as a pre-determined pattern to which the data must be made to conform. Clearly, the

necessary awareness can be maintained by the use of conscious reflection consistent with the methodological approach underpinning the research.

8 Reflection and Discussion

Chapter highlights:

Research objectives – aim – question - problem – all reconsidered – a personal reflection

Introduction

Chapters 8 and 9 together summarise and reflect upon the research process and the conclusions which can be drawn. The purpose of chapter 8 is to reconsider in detail the original research design which was laid out in chapter 1 and the extent to which the design has been fulfilled in terms of what has been learnt. The sequence of argument in chapter 1 necessarily moved from the general towards what was particular and relatively achievable – namely from the research problem through the research question and aim towards the selected objectives. By contrast the task of the present chapter is to move from the detail of the actual findings of the research towards a consideration of if and how they have succeeded in addressing the original problem. Hence the sequence of the chapter is: objectives, aim, question and problem. As there are in effect two parallel but complementary streams to this research, namely the investigation of Construction Industrial Policy and also the investigation and development of the relevance of Political Economy theory, remarks are included here regarding both. The commentary on the two streams, each of which is used to test and illuminate the other, is separated out where necessary to adequately capture the research findings and their implications. The chapter concludes with a brief personal reflection on the role of the researcher and how this might have influenced the research process.

8.1 Research objectives, aim, question and problem

8.1.1 Research objectives

This section is arranged in the sequence of the four research objectives set out in section 1.3.3 and as summarised in Figure 1.

(1) 'To formulate a method of policy analysis which is grounded in theory and which can be used in a repeatable way, as a framework, across multiple areas of policy for construction.'

Theory from Political Economy and Political Economy Analysis has been imported from its use in other contexts including especially PEA as used in various forms in development

economics. It was observed in earlier chapters that much writing which purports to apply PE thinking tends to concentrate on description and interpretation without being very explicit concerning the theory which is being deployed. Nevertheless, within PEA itself over recent years sufficient guidance has been generated for use by the Development community to enable would-be users to derive a useful armoury of both theory and practical technique. While initially advice for those working within Development may seem to be far removed from what is required in analysing industry in a first world context, it was found that in practice surprisingly little adjustment was necessary. This outcome may simply be an illustration of the extent to which researchers in PEA have been careful to adequately ground it in the well-established methodologies of political economy itself.

The main adjustment was in fact one of orientation rather than substance: perhaps the most significant problem to be overcome was not one of adapting the theory itself but was associated with the meaning of the language used in different disciplines. The main example of this is the use of the word 'structure', which has been explored earlier (see section 7.1). Like many words used in policy analysis, which deals with concepts and intangible entities, structure has no absolute meaning but is used as a metaphor, yet the metaphor has a meaning in PE/PEA which contrasts with usage within the influential Theory of Structuration developed by Giddens (*op. cit.*). Furthermore the meaning of the metaphor within Structuration may, for better or worse, be more familiar to researchers within Construction Management Research than the alternative PEA usage. For example the PEA usage relates to aspects of history and geography (that is, features which are fixed) whereas Giddens deliberately distinguishes such fixed points from his notion of 'structure' which instead refers to the 'rules and resources' (*ibid.*:377) which can be inferred from embedded patterns of behaviour (the latter being 'institutions' – seemingly, and happily, a shared meaning between both theories). It was concluded that, while the difference in usage of words is at first disconcerting, in fact the underlying meaning within Giddens' theory was not at odds with the sense within PEA that there is an important difference between embedded behaviours (institutions) and the fixed, or difficult-to-change, features which PEA terms 'structure' but for which Giddens apparently has no single term other than features of 'space and time'.

There is one area where the substance of PEA theory, as developed here through the data interpretation and analysis process, could be distinguished from that of structuration theory. This derives from the nature of the present task which is essentially one of policy analysis. Typically, the first stage of addressing a policy problem is to frame it. While this is often seen as a politically loaded exercise, some kind of framing will always be necessary whether taken for granted by those involved or, alternatively, if subject to rigorous debate. The act of framing may sometimes allow a long term, strategic, view to be taken where fundamental or challenging causes can be examined. Alternatively – and, on the basis of the present research, more likely – a more short term, limited view will be taken concerning the aspects of the problem which are 'on the table' (see section 7.2.1.1). While the conclusions of the present research point strongly towards the benefits of allowing fundamental causes, and therefore structure, in the PEA sense of the word, to be considered and at least taken into account in understanding policy options (see section 7.1), it has also been found helpful to classify as 'structure', in the PEA sense, those features which are hard or unlikely to change, rather than restrict the term to features which are absolutely fixed such as past events.

Yet in terms of theory, and particularly in its application when dealing with description and interpretation, this distinction (relating to features which are absolutely fixed or just difficult to

change) was found to be less significant than it might appear. Precisely where on the map of cause and effect (Figure 9, repeated here as Figure 10 for convenience) one places a single feature is less important than the sense that one feature may be linked to another in a network of influence, and that some features are tantamount to being permanent whereas others are more malleable, with a range of degrees of fixity in between. For the would-be policymaker, or a stakeholder wishing to engage with policymaking, PEA can stimulate a sensitivity towards those features which are relatively fixed and those which may be susceptible to change in order to change the conditions of agency. A final word on this point relates more specifically to CIP and its history of apparent mis-firing, and is perhaps an obvious observation: if a policy measure turns out to be unsuccessful, then one conclusion might be that it was based on an incorrect diagnosis of cause and one needs to look for more fundamental causes which are still present and preventing change (so, one question might be: if tighter building regulations are not leading to better quality, why is weak enforcement allowed to persist and what are the structural reasons behind that ? See section 7.2.1.1).

Political Economy forms the theoretical source for Political Economy Analysis. Yet PE itself is not a single academic discipline but an ever-widening '*family of approaches*', an inter-disciplinary endeavour which, in its search for answers, borrows from other areas of academic inquiry (Weingast & Wittman *op. cit.*:3). This can be understood better by referring back to the origins of the field of study, before the many modern-day academic specialisms and subdivisions evolved (see section 3.1). Certainly, as the name implies, it sees policy challenges, and many other aspects of how society chooses to arrange itself, as neither wholly political nor wholly economic. But PE is more than just a bolting together of two apparently different fields. It seeks to develop a system-wide view. In effect the modern-day boundary between even the two main threads of PE is a false one. To that extent, and especially in its use of a determinedly inter-disciplinary approach, PE is compatible with the methodology of the research design (including the use of interpretivism and conscious reflection: see section 4.3.2).

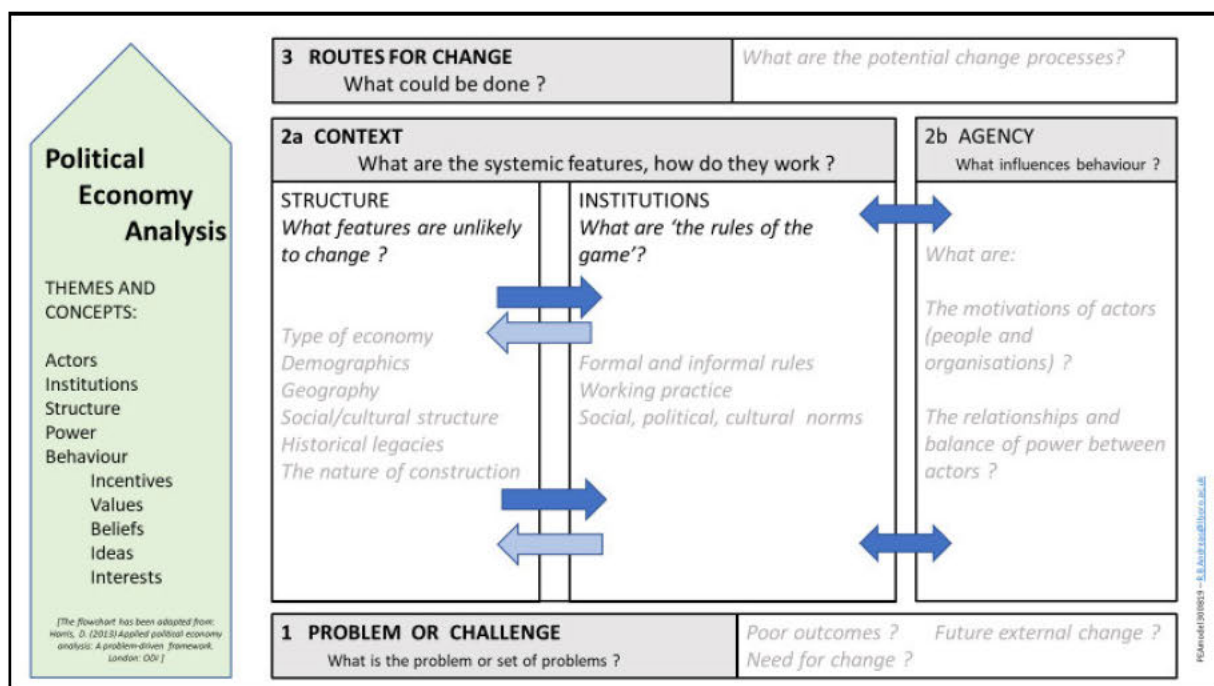
Any attempt to condense such a diverse arsenal of approaches as there are within PE into a viable method of research is fraught with the danger of over-simplification. Yet in trying to apply the theory, as opposed to merely describe it, there is a need to capture its essence in a way which can be used as a conscious point of reference without the result being rigid, finite and impoverished. PEA, as used in development economics, has evolved as a working method – in fact partly to ensure that the political aspect of policy receives proper attention, and in order to reduce the risk of policy failure (McLoughlin, 2014:2; see also sections 4.1, 7.2.1.4 of this thesis). PEA itself has many forms, roughly corresponding to the number of major aid agencies. Sources were found which had attempted to compare the main alternative versions and to draw out common themes (Whaites, 2017; Booth *et al.*, 2009; and see thesis chapter 3). To the extent that PEA methods have been subject to criticism it is to the effect that, in the use of PEA, the 'political' (and 'power') thread has become weakened, thus contradicting the early reasoning behind its adoption across the Development community, and even leading to a redesign and rebadging as 'political analysis' (Hudson and Leftwich, 2014) or 'PEPA' ('Political Economy and Power Analysis': Acosta & Pettit, 2013). However these efforts to address apparent weaknesses in the use of PEA arguably simply serve to illustrate the validity of the earlier ideas about PEA after all, including its intended sensitivity to political aspects. Certainly the proponents of PE as an inter-disciplinary domain would not seek to exclude the importation of political and power analysis ideas into its remit. The present

research has benefitted greatly from the attention to the continued use of PEA, and the refreshing of its methods, over the past decade or so. The re-emphasis of the political aspect of (construction) policy, and the avoidance of a purely technocratic, topic-based, approach to 'solving' policy challenges is consistent with the chosen direction for the present research.

Early in the research process it was anticipated that, while a visualisation of the PEA process would be very helpful as a mental check for the researcher during analysis, the visualisation would become less immediately relevant once familiarity with it had been acquired through use. Furthermore, there seemed to be a danger in designing research around the formation of any kind of visual model which might mislead potential users into an assumption that there was some kind of mechanical tool available which can solve policy problems in a deterministic way. Despite these early misgivings, the final PEA model (Figure 10) evolved out of practical use and relevance during the analysis and writing-up phase. In short, contrary to early expectations, the value of the visual model was found to increase rather than decrease.

Figure 10: Final template of the PEA model (Figure 9 repeated)

Adapted for use with construction (repeat of Figure 9, for ease of reference)



The way in which PEA theory was adapted over the course of research is summarised in section 8.1.1 (Objective 3). Using the model as a blank template was found to be helpful initially simply to capture observations of features (beginning with 'structure', then 'institutions' etc.) emerging from participants' comments, followed by an exercise in identifying lines of influence between such features. This amounts to no more than drawing lines between post-it notes placed on the model and allowing the network of influences to progressively reveal itself and to be interrogated, yet the process helped in maintaining a sense of a visible connected system rather than merely an accumulation of ever more detail and description in a linear fashion.

In other words, during the later stages of the research it became apparent that there is a value in using the model not just as a means of communication of theory but that also, by adjusting the visual appearance of the design³⁴ it became a worthwhile tool to assist the user in formulating thick description, analysis and even in beginning to identify possible routes for change. The model makes the network of multiple causes and effects visible and therefore more susceptible to challenge and improvement. The revised model, it is suggested, has become the basis for use by two or more people to focus on and address a specific policy challenge. The power of the use of visualisation techniques for both understanding networks and engaging stakeholders has been examined in Pocock *et al.* (2016) who concluded

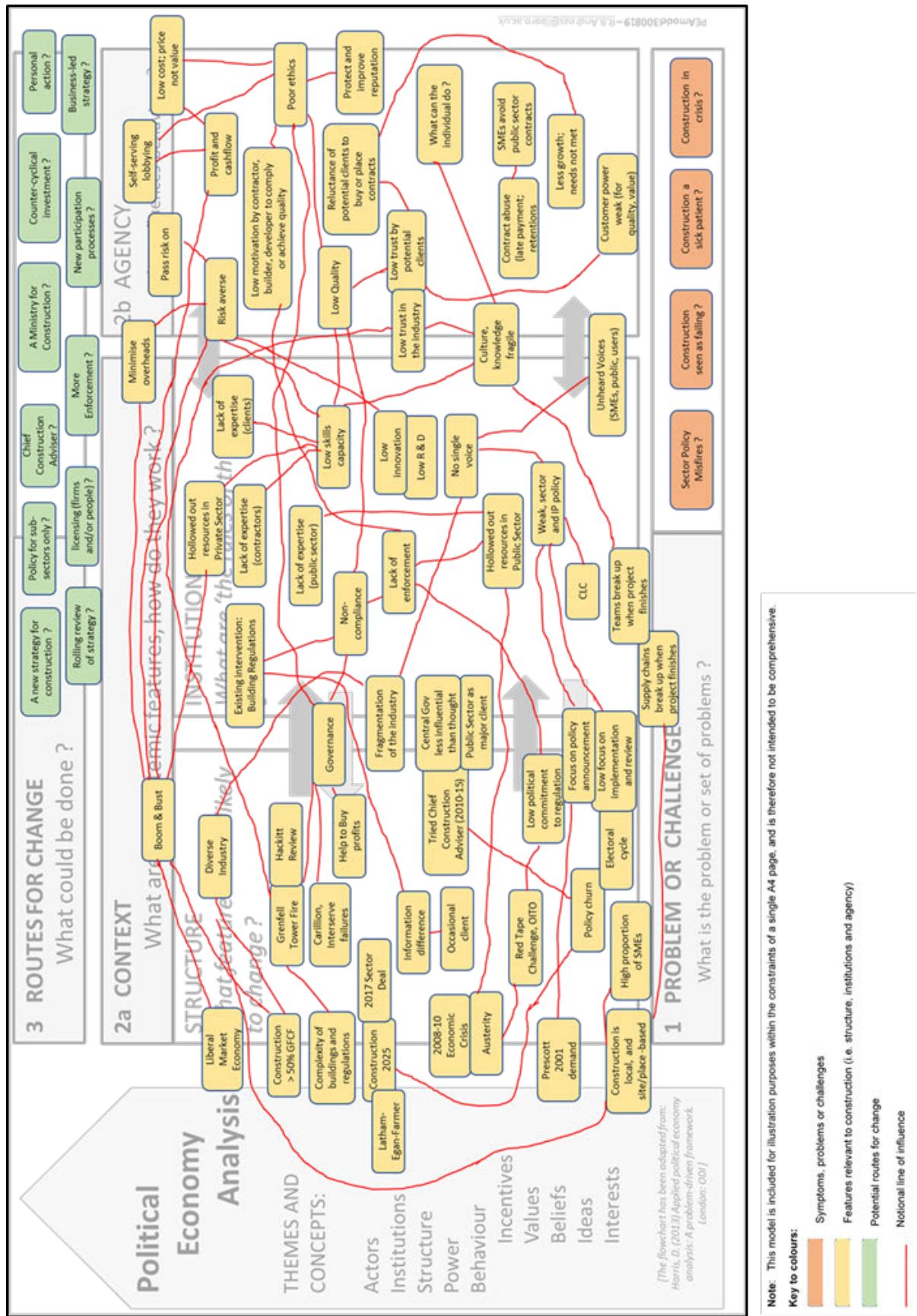
'For advocacy and decision-making, networks can be used as an approach for stakeholders to synthesise and incorporate complexity' (ibid.:73)

To summarise, what had originally been seen as simply a means of communicating the essence of otherwise very extensive theory evolved pragmatically during research to become a model which has the potential to be used actively by stakeholders in a simultaneous collaborative process. Writers on PEA have remarked that it can be used to most effect as part of a 'transformative process' among a group of people or stakeholders (Mcloughlin, 2014:3) rather than merely an exercise in one-off analysis by an external observer: the model developed here would seem to lend itself to such an approach and this aspect is worthy of testing.

Therefore an approach to PEA has been developed which has been adapted for use with policy for construction, meeting the requirements for a method of policy analysis (a framework) grounded in theory and represented by the first part of Objective 1. The features identified during this research as being relevant to policy at the sector level (CIP) are summarised on Figure 11. (The model shown here is for illustrative purposes and does not show all the detail identified during the course of research.)

³⁴ The visual adjustments were to do with: simplifying text; greying out text to allow space to be more usable; increasing the relative size of the box labelled 'institutions'; turning the usual model on its head so that that the flow from problem to action travels from bottom to top of the model. See also thesis section 8.1.1 (3).

Figure 11: PEA model for CIP (indicative)



The second aspect of Objective 1 required that the method of policy analysis can be used be used in a repeatable way ‘*across multiple areas of policy for construction*’, and this needs now to be considered.

In practical terms, during interviews, each participant had their own view of what policy for construction should be about, inevitably influenced by their own working and life experience. All responses nevertheless contributed to the full picture of CIP. Despite the diversity of experience, and despite the diversity of the industry, the process of analysis pointed towards structural features which often are not only powerful influences on the industry as a whole but which also influence multiple parts (see section 7.1.1). It was therefore possible to use the same sector level model to generate a narrative not just for CIP but also for other policy ‘problems’, with the continuing caveat that the problem as initially stated may itself be subject to reframing during the investigation and exploration process. Hence, for example, a model and narrative for the symptom or problem of ‘low quality’ was generated - see Figures 12 and 13 respectively, which are based on the discussion in section 7.2.1. (The PEA narrative and visual model for this specific area will of course need more attention, and debate, before they can be considered complete, but this does not undermine the present argument.)

Figure 12: PEA model for ‘Low Quality’

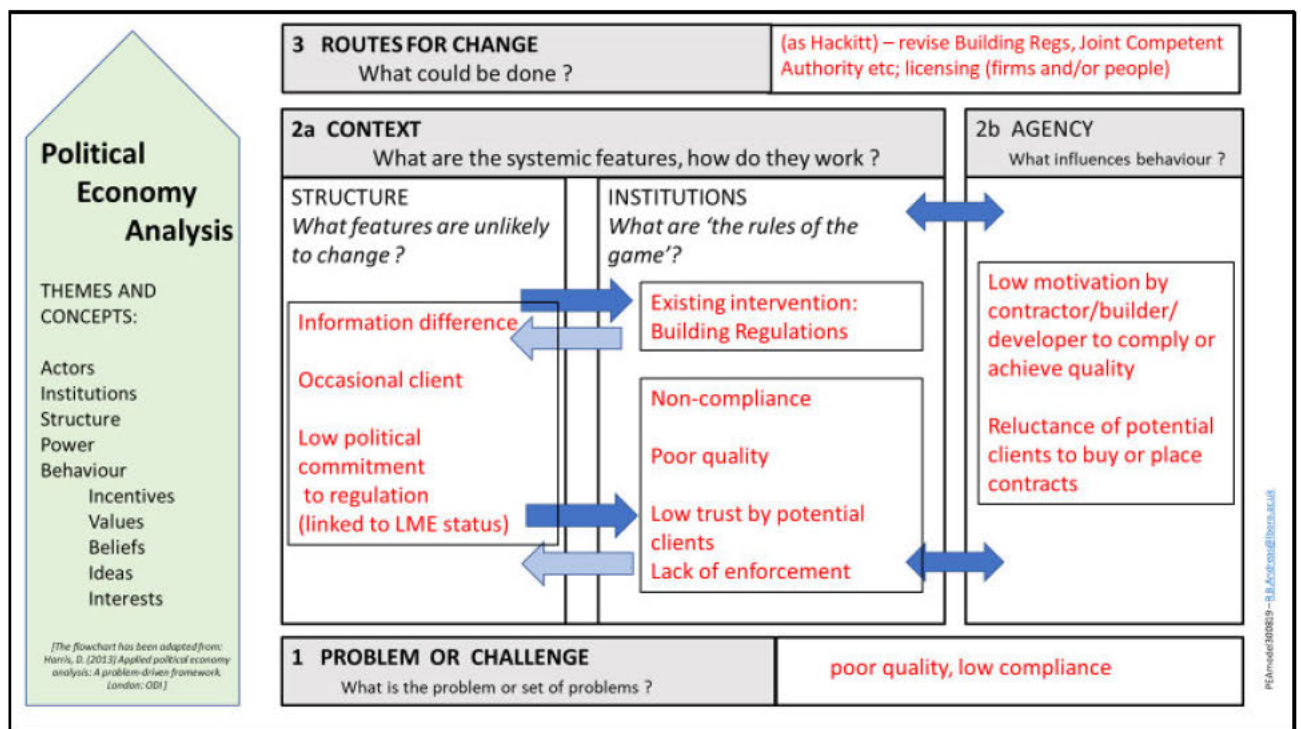
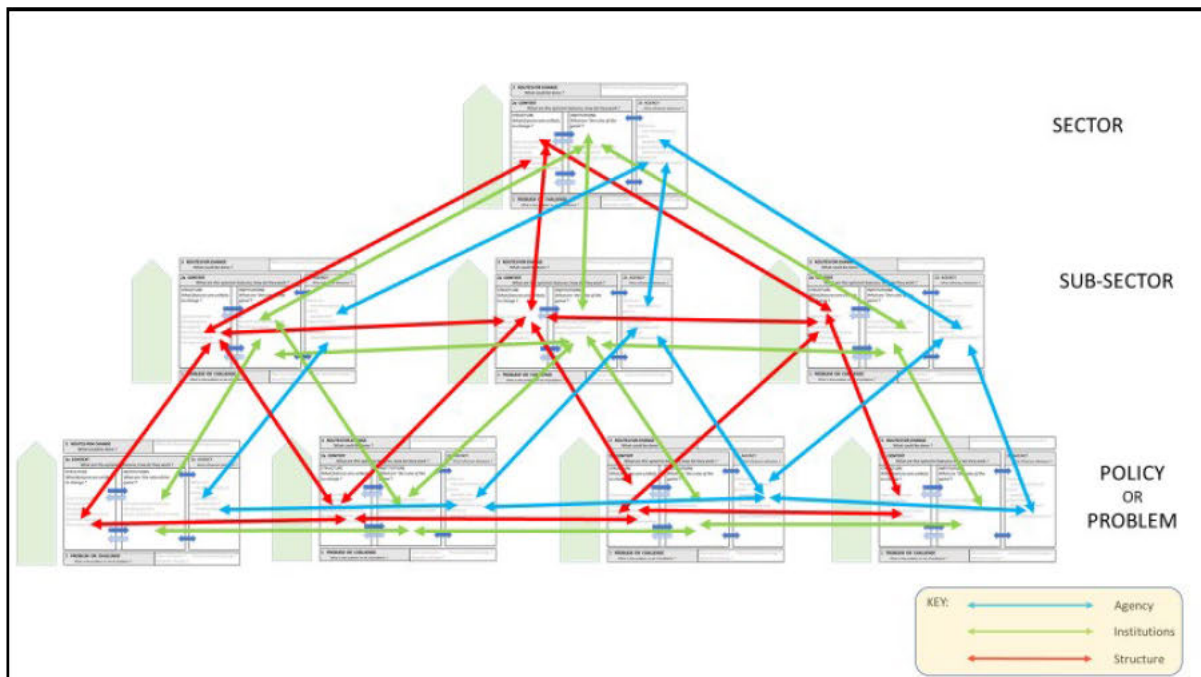


Figure 13: Narrative for 'Low Quality'

NARRATIVE	
Symptom (problem/topic/issue):	poor quality, low compliance
Structure:	Information difference, occasional client; low political commitment to regulation (linked to LME status)
(Existing) policy mitigation/intervention:	Building Regulations
Institution:	non-compliance, poor quality, low trust by potential clients; lack of enforcement
Agency:	low motivation by contractor/builder/developer to comply or achieve quality; reluctance of potential clients to buy or place contracts
Mitigation/plan for change:	(as Hackitt) – revise Building Regs, Joint Competent Authority etc; licensing (firms and/or people)

The reason for being able to do use the core PEA model information for multiple purposes in the way is that there is a great deal in common between different policy areas associated with construction. The most likely zone of shared features is to do with those of structure: namely, those relatively fixed but frequently very influential areas such as vulnerability to boom/bust; information differences, occasional client, LME status of the UK *etc.* But there are also shared elements in terms of institutions and agency. Further thought concerning features similarly shared with other policy areas (skills, innovation *etc.*), and inspection of the CIP model (Figure 11) indicates that multiple policy models, individually customised, can be developed using the foundation of the data collected here and summarised on the sector model. Indeed, this is the result which can be inferred from the rationale behind the sequence of PEA analysis recommended in the literature of country/sector/problem – (the sequence was discussed in section 3.7.2.1). This approach, of a set of related models, maximises the value available to be derived from the present research and is shown graphically on Figure 14 as a kind of family tree of PEA models, each model being unique but also sharing a great deal with adjacent models. The family tree suggests also a route for future research in that it creates a potential for mutual sharing of new insight between models as they take shape and to accumulate a progressively more useful body of data and knowledge. It also suggests that any new exploration of policy can, as a first step, benefit from all preceding work by translating across relevant aspects of previous models. Hence the second requirement of Objective 1, that the theory can be used in a repeatable way across multiple areas of CIP, has been fully achieved.

Figure 14: Potential connections between individual policy models



After the discussion of how elements of PE and PEA theory have been imported and adapted for use within construction policy, it is necessary to return to a more specific consideration of the method by which Objective 1 has been addressed. The process of development of the approach to PEA pursued here is considered to be consistent with an abductive approach to developing theory, which was adopted as part of the methodology of the research, in that substantial theory was abducted from PEA methods used outside of the field of Construction Management Research and then used to guide, but not constrain, the design of interview questions, and the interpretation of responses. Similarly, different visualisations of PEA developed by others were used as the basis of a model adapted for construction and this model was further adjusted during use, as described in this section (8.1.1). In fact the research progressed further than originally planned in that the final model was found to be useful not just for communication but also for a more active purpose during analysis, development of concepts, making influence routes more transparent and – it is anticipated – the model can be used for PEA processes among two or more people.

Therefore all the requirements of Objective 1 have been met.

(2) 'To use and test the framework by means of a study of policy at sector level (Construction Industrial Policy).'

A discussion was included in chapter 2 regarding the extent to which selection of the subject of research (CIP) might carry risks of failure. It was concluded that, to the extent that choice of the subject of research can be challenged, so it is the case that the very concept of an overarching policy for the industry – as interpreted through many attempts by different Governments over decades – is also open to question. The possible flaws of one (the method of research) are likely to reflect flaws in the other (CIP). So, for example, choice of CIP as the unit of analysis is not invalidated by industry size and diversity if these are also possible hindrances to an effective CIP, even though they may generate difficulty in data collection and analysis. Any such difficulty should act as a spur to more, rather than less, research.

Despite these challenges, it was found feasible to develop a study of Construction Industrial Policy by using and testing a PEA framework. As discussed under Objective 1, use of the framework within the case study proved to be of value not just as an aid to conceptualising and transferring aspects of PE/PEA theory into the Construction Management Research domain but also, by virtue of the visual form of the framework, as a practical aid for analysis and constructive challenge to emerging observations and findings. If there are gaps in data collected and analysed (and given the diversity of the industry there surely are some gaps), these point towards the need for further research and do not in themselves indicate flawed conceptual design of research.

Therefore all the requirements of Objective 2 have been met. The outcome from testing of the framework with the CIP model is discussed in the next section, under Objective 3.

(3) 'To establish what can be learnt, as a result of the study, both about the policy area itself and also about the use of the framework.'

Before considering this objective in detail it is necessary to make a caveat about the way in which data is used and interpreted. Once data and description begins to be accumulated, and the detail of the network of influences, and of the difference between perspectives and interests of the stakeholders, starts to emerge, the theory gradually recedes into the background. The task is one of deriving meaning from the data. Use of the visualisation allows this task to happen more easily, and can support communication, sharing of meaning, challenge, and dialogue or exploration. The visualisation can act as a physical focal point, but itself requires additional description to capture different potential narratives of change – for example the 'Narrative' page shown as an example on Figure 13. To utilise the insights offered by Chilton (2004:61) concerning the meaning of language, including political language:

'meaning is not 'contained' within words, nor is it a thing discovered, or uncovered'.

Nor, by extension, does meaning reside in a visualisation. But

'rather meaning is constructed by human minds' (ibid.)

- in other words, meaning is that which is constructed in the minds of those engaging with the process. It has no separate, independent, existence. Theory, words and graphic are all merely a means to an end rather than an end in themselves.

Objective (3) a – findings concerning the PEA framework

It is therefore necessary to return briefly to the question of the extent to which PE and PEA theory has been used in this research. The novelty of the research is based on the idea of importing a relatively well-established concept (PEA) from another domain, and testing it in use as a means of deriving new insight into policy for construction. The two mutually reinforcing aims were concerned with simultaneously learning about CIP and learning about the use of PEA. By definition therefore it was not intended that a totally new version of PEA would be created but that the task was instead one of adapting existing models to the extent necessary to be relevant to the present task – and potentially also to be relevant to their application to future policy analysis for construction. As part of this description of how Objective 3 has been met it is necessary to note the extent to which changes and adaptations were made over the full course of the research.

The main sources for the theory and for the model developed during research were discussed in Chapter 3 – in terms of the model, see Poole, 2011:3 and Harris, 2013:5. In terms of substance, relatively little adaptation was required. Poole's model offers a clarity of flow of thought, whereas that of Harris, while rich in ideas, can be confusing in terms of how it is intended to be used. Both writers (and there are others who offer similar approaches) appear to use the model as a means of supporting their explanation of theory rather than necessarily as a working tool ready for use. The proposed model, as revised during the course of research (see Figure 10 for the template), retains the sense of clarity, even simplicity, and also seeks to formulate the model as something which can be used by a practitioner and stakeholder, as well as by a researcher.

Text has therefore been kept to a minimum, and the model is designed as a template to be populated rather than as just a display of theory. Harris (*ibid.*) emphasises the influence of structure, while Poole (*op. cit.*) only refers to structure by implication. The PE idea that some features are in effect fixed yet influential seems fundamental, and was found to be helpful in stimulating more challenging analysis of the data. So structure seems fundamental to the PEA method. Therefore Harris' use of 'structure' (strictly speaking, in his words, 'structural features') is retained in the proposed model. Harris recognises the distinction between the two PEA ideas of 'structure' and 'institutions' yet groups them together in a single space under the useful idea of 'systemic features'. The proposed model follows Harris in having a combined heading for systemic features (and 'Context') but sharpens the distinction between structure (being the features which are 'unlikely to change') and institutions, as an attempt to aid analysis and provoke challenge. From Harris, the idea of the dynamic interaction between agency and 'systemic features' was also captured in the model: in fact this seems a not unreasonable interpretation of Giddens' proposition that '*agency shapes structures, which in turn condition agency*' (quoted in Buse, 2008:13, though see above, section 7.1, for a discussion of the difference in meaning which Giddens applies to his use of 'structure' compared to usage in PEA).

Hence the graphics now show a degree of mutual interaction, not just between agency and institutions but also between structure and institutions, albeit more limited in the latter case.

The format of arrows used in the model is intended to suggest that while structure can influence institutions and therefore agency, there is also an influence in the reverse direction whereby agency can influence institutions and some aspects of structure. The main difference at a theoretical level is therefore that, while some aspects of structure are simply incapable of changing (namely those features which Giddens would not call structure at all but aspects of history and geography, or time and space), by contrast some other structural features are potentially subject to change if a longer time horizon for analysis can be accommodated and the alleged problem can be reframed. An example of such a structural feature would be, say, the character of the UK as a Liberal Market Economy with a first past the post electoral system. (For a discussion of problem framing see section 7.1.2.) The template here classifies both kinds of structural feature together as sources of influence which '*are unlikely to change*'. Whether a single feature is, during the analysis, to be considered as something which will not change or as something potentially open to change, really depends on the framing of the original problem and the extent to which those conducting analysis can afford to take a longer term, more strategic view (see thesis section 7.1.2). On the other hand, the real task of the analyst or user here is to ensure that features are captured in sufficient detail, with all the lines of influence between feature and effect. Therefore the precise positioning on the template is less important than capturing the feature and the sense that it has more permanence than features placed in the category 'institutions'.

What then is the point of the focus on structure (and other PEA features) ? It is not about a false and unhelpful precision, but about using the concept of structure to continually challenge observations of behaviour to understand, and infer, which features are relatively fluid and those which are relatively hard to change, with possibly points in between. Some of the implications of this were addressed in section 7.1.3. One of the most worthwhile benefits is to do with stimulating a search for deeper, more strategic influences and hence counteracting the inherent tendency of policy to focus on shorter term, more superficial symptoms and remedies. Similarly, other concepts are used to help describe, challenge and improve the portrayal of the network of influences. For example, the emphasis on 'institutions' reminds the analyst that many features of the policy context both constrain action but are also to some extent fluid (see section 7.2). Finally, the focus on agency prevents the user from assuming that actors are dominated by external forces in a deterministic way; instead they may possess not only very individual capacity to act, derived from their personal context, but also individual interests and motivation which can be important, even critical, when change processes are considered (see section 7.3).

Once the network of influence is approximately mapped, the precise position of a feature on the template is less important than the sense that there are a number of features which work together in a systemic way and which need to be accommodated in any plan for change. The thick description, and the understanding it enables on the part of the observer, becomes more important than taxonomy.

Objective (3) b – findings concerning policy for construction

Turning therefore from a consideration of what was learnt about PEA towards a summary of what was revealed about construction policy, the more important ‘unlikely to change’ (structural) features, and their potential consequences, based on observations and analysis presented in chapters 6 and 7, seem to be:

- the influence of the domination by the industry of national **Gross Fixed Capital Formation at over 50%** (Gruneberg and Francis, 2019) which in turn is linked to the unusual degree of susceptibility of the industry to the boom and bust of economic cycles (which in turn is linked to the widely criticised ‘business model’ of the industry, lack of investment in skills and innovation, poor image *etc.*)
- the position of **the public sector as the most important single client of the industry**: this can be considered as a structural feature as in the lifetime of most policy ‘problems’, and the gestation of their policy ‘solutions’, it is unlikely to radically change. The consequences may include the regular and repeated interest of Governments of all types in policy at the sectoral level (hence Latham, Egan, Construction 2025, the sector deal *etc.*) and the potential for Government to use its ‘commissioning power’ to change practice and outcomes in the industry (hence the Government Construction Strategy 2016-20, the mandating of BIM Level 2, and the presumption in favour of the use of offsite construction for public sector projects). Importantly, however, the research found evidence to suggest that this structural feature was not as dominant as participants tended to assume:
 - First, a common perception among participants was that the public sector accounts for around 40% of industry revenue whereas ONS data suggest only 24% (2017 data: see Rhodes, 2018:10). The higher, apochryphal, figure also tends to be referred to in public discourse (see for example Harral, 2019). Only one participant, a policymaker, used the lower figure, others used the higher figure. The data referred to by Rhodes (*ibid.*:10) suggest that in recent years the actual percentage is dependent more on fluctuations in private sector spend (and hence the stage of the economic cycle) rather than being a deliberate result of changes in absolute public sector spend: for example in the relative boom years before the financial crisis of 2008 the public sector as client accounted for approaching 20% of construction activity.
 - Second, while many actors would casually conflate ‘the public sector’ with ‘central government’ (e.g. Harral, *op. cit.*) in practice responsibility for the current 24% total is widely distributed across not just different ministries but also across different regions, cities, agencies and arms-length bodies all of which leads to a very diffuse picture regarding accountability and power. Hence a policymaker interviewed was obliged to point out that Government (and by extension the wider public sector including local authorities) is not as joined-up or ‘*monolithic*’ in how it acts as is commonly assumed – for example, according to the participant, while some arms of government would want to insist on enforcement of fair payment terms, others had less of an interest in abiding by such rules. In summary, while on balance ‘*public sector as leading client*’ should be seen as a structural, systemic feature which is unlikely to change, by contrast the interpretation of the impact of this is much more nuanced, and fundamentally weaker, than is commonly supposed.

- The feature (that is, 'public sector as leading client') does indeed seem to offer at least a partial explanation for the persistence of attempts at CIP by Government and for interest among stakeholders in engaging with CIP. But the observation that this nominal client is not as dominant as is often supposed, either in terms of revenue or in terms of institutional capacity, in its assumed agency to wield corresponding influence and power, suggests that there is very good reason why Government (usually represented by BEIS or its predecessors such as BIS or DTI) has such difficulty in implementing CIP. (It must be conceded that the agency of central government is likely to be greater in some sectors than others: for example, its agency is greater with infrastructure than with housing repair and maintenance).
- Finally, depending on future macro-economic and political choices (including moves towards city mayors and regional 'powerhouses'), the trend towards distancing of central government from executive and operational activity may lead to further reduction in the capacity of central government to influence the sector.
- **Occasional Client:** a number of participants mentioned this feature as one which tends to result in customers of the industry being at a disadvantage in bargaining power compared to the contractor/supplier. According to a report in 2008, while 60% by value of contracts are let to frequent clients, as many as '*about 95% of the industry's customers are one-off or occasional clients*' (Business and Enterprise Committee, 2008:20) . While there are some clients - say the larger executive agencies such as the Highways Agency or some larger international corporations - who have the resources to capture, maintain and advance learning from project to project, it seems likely that most customers of the industry are not so well placed, such as buyers of housing or, to quote one participant, a governor of a school leading on the purchase of a new building. This may result in sub-optimal contracts, misunderstandings regarding standards of construction, and poor outcomes in terms of quality. Actions may of course be put in place (such as guarantee and insurance schemes) to offset some of the negative impact, but it seems correct to recognise the significance of the structural (in this case, probably permanent) feature and hence the need for equally permanent mitigating measures. By extension, these mitigating measures need to be enforced as a matter of strategy if the influence of the structural feature is to be offset. The mitigating steps therefore have much in common with the 'low quality' narrative developed in section 7.2.1, and with the next structural feature.
- **Information difference:** this is perhaps best seen as a more general case within which 'Occasional Client' is just one example. The idea is a recognition that in many construction, and built environment, contracts one party has a considerable advantage, and hence power, compared to the other in terms of information about the product or service (the building, say, or a tenancy) which is being sold. The feature was identified by one participant who referred to it as a '*market failure*' – that is, it is an exception to a working assumption that free and efficient markets should normally deliver optimum results for both parties to the contract – and that hence intervention by Government is justified, especially in terms of Building Regulations and Approved Documents (see sections 2.4, 7.1.2 and 7.2.1.1). The Grenfell disaster can be seen, amongst many points of learning for the industry, as one example of where the imbalance of bargaining power, especially if the interests of building occupiers are

brought into scope, has gone wrong with tragic consequences leading to awareness of the need for radical reform.

- **Political factors:** there are several factors which can be grouped under this heading which together suggest that there is a structural effect at work, many of which have been discussed in section 7.1.2. First, the electoral cycle means that any one administration has a life of no more than 5 years, recently even less, within which it will be held accountable at the ballot box for delivering on its manifesto promises (the five year limit was brought into effect with the Fixed-Term Parliaments Act 2011). Unless equally structural measures are put in place (such as, perhaps, say the Climate Change Act of 2008, or the creation of an independent Monetary Policy Committee) there will be a tendency to focus only on problems and solutions which have a chance of being addressed within the cycle. For example, if problems require a longer term horizon and strategy, either the policy will tend to fail if it has been designed based on a short term horizon, or the 'problem' will simply not find its way into the manifesto in the first place. This structural feature may be worsened by features such as churn of ministers and civil servants (see section 6.2.5, 6.3.1, 6.3.3): several participants mentioned the rapid rate at which Ministers for Housing are replaced; ministers for responsibility for construction (within BEIS) change with similar frequency. Other participants tended to remark that assumptions around the significance of the role of ministers were exaggerated, partly as one consequence of such churn, and that policy dialogue was usually best carried out much further down the policymaking organisation. The consequences of this group of political factors here are to do with: ministerial and civil servant focus on announcement and design rather than implementation and review, which was referred to by one CLC member (see 6.2.5); policy churn and instability; tendency to address problems at a superficial level (and have programmes which can be put in place during the current administration) and to avoid asking deeper questions especially during the problem definition phase (see 7.1.2). So there are perhaps two structural issues here: first, the electoral cycle and, second, the churn of ministers, civil servants and policy. The implication is that these features will affect all policymaking negatively, and that while it is outside of the remit of probable scoping of CIP to even contemplate the transforming of constitutional and governmental processes (though at least one participant wanted to do exactly that), if CIP is to become more effective then steps need to be taken to offset the tendency towards policy instability and weak accountability. To some extent the industry sector councils (including the CLC itself) can be seen as one such effort yet they still remain vulnerable to churn given their relatively informal constitution and arguably weak ownership by sectors. The Industrial Strategy Council, set up in 2017, is an attempt to support a more stable policy context for industrial policy but has been criticised as being too limited in its terms of reference to achieve such an aspiration (Besley and Davies, 2019).
- **Construction is not a single industry but an amalgam of diverse industries:** this was a feature referred to frequently by participants as being an impediment to effective CIP. It has been discussed in sections 6.2.3 and 7.1.1.3. It is no less important for being obvious. Not only is the industry diverse in including many different activities at the level of the construction site itself but in the words of one participant, there is an outer '*ring*' of related activities which have some degree of bearing on the industry and which themselves may even form parts of other so-called industry sectors such as finance or distinct groups such as clients, and even academia (one participant, from

the supply chain, did wish to include the last group). Groak (1994) has proposed a more extreme view of construction activity in saying that it is best viewed as an 'agglomeration of projects' rather than as an industry as such. In terms of the consequences for CIP of the difficulty of capturing its diversity in a simple way, these include the challenge of identifying a single body able to speak for the industry as a whole, and the challenge of seeing beyond the separate and sometimes contradictory interests of the different 'tribes' in construction (to use one participant's characterisation) to arrive at policy which would be effective at a sector level. So this diversity creates difficulties for both policymaker ('who do I speak to?', 'how do I design cross-cutting policy?') and for industry actors ('how do I make my voice heard?', 'who do I work with?'). In practice it is easier to see how policy might work at a sub-sectoral level such as say housing or infrastructure; in addition policy at such a level is more clearly owned by powerful parties within Government (namely, MHCLG and the Cabinet Office/Infrastructure and Projects Authority, respectively). Hence, ownership of policy at the construction sector level is less concentrated and less influential: BEIS leads but is heavily dependent for the success of CIP on other centres of power within Government (see section 7.1.1.2) who may be more interested in immediate outcomes (more housing, completed projects) rather than the health of the industry as such.

- **Fragmentation:** again, the observation that the industry is fragmented is far from new, and was made by several participants. It has been discussed in section 7.1.1.3. It is a feature well-recognised by policymakers (e.g. Egan, *op. cit.*). It is a different point from that of the diversity of activity within the industry, but many of its consequences are shared, including the difficulty of determining an effective voice or voices for many in the industry and the risk that such voices are not being allowed to influence policy (see section 7.1.1.4). It may be argued that it is more of an institution than a structural feature, but the case for inclusion as structure has been discussed earlier (section 7.1.1.3), in that at least a significant proportion of its effect would seem to be structural and relatively permanent rather than dependent on other passing influences. Its persistence may be linked to other features such as the effects of boom/bust (attrition of businesses followed by founding of new ones; risk-aversion towards growth and increasing fixed costs) and geography (again, SMEs decline and grow according to the local activity in construction as discussed under 'geography' below). Historic events referred to by some participants in relation to the hollowing out of major construction and client organisations, and the subsequent reliance on out-sourcing, may also contribute to the feature.
- **Historic events:** some of these have been described earlier (section 6.2.4), and many were mentioned by participants. Events of major importance included Grenfell (and the associated Hackitt Review), the collapse of major contractors such as Carillion and the whole range of regulatory and policy legacy including the 'one in two out' approach to regulation which, though it appears to have fallen by the wayside (according to a policymaker participant), arguably has left a legacy in terms of a weakened regulatory environment (see sections 2.4, 7.2.1.1). The Prescott effect mode of policymaking (sections 6.2.4 and 6.2.5) and its impact on the industry has been discussed, in that it offers insight into how change in the industry has occurred in the past, apparently without specific regulation. Responses from participants confirm that such major events leave a legacy, both in terms of the policy context and also in the memory of industry actors, concerning what is feasible or realistic, and in behaviours.

- **Geography:** In the words of one participant '*Construction always happens somewhere*'. Unlike other industries which are often increasingly mobile and even virtual (such as the on-line games industry), construction activity happens at a pre-determined physical location. Like the structural feature of diversity, this feature of place-dependency is overwhelmingly obvious but also fixed and important in its consequences. At a practical level the consequences include regional, and sub-regional, differences in needs and local practice, materials and techniques; supply chains are vulnerable to being broken up as soon as a project finishes; learning at an organisational and supply chain level is less likely to be captured and replicated; learning at a personal level may also be vulnerable if the next project cannot make use of recent experience; disrupted supply chains and learning may have a negative impact on innovation and productivity. Again, depending on the policy area in question, these probable consequences of a structural feature imply that any mitigating policy needs to be equally secure in its longevity and effectiveness if the symptoms are to be addressed adequately. And, as with some other structural features such as information imbalance, some sub-sectors may well be impacted more than others: for example, activity by SMEs locally in connection with say RMI (repair, maintenance and improvement) projects may tend to be associated with fewer problems of disruption than supply chains for say major infrastructure projects.

What is the significance of identifying a feature as structural? Some of the implications of doing so were discussed in sections 7.1.2 and 7.1.3. It might be implied that the consequences of such a feature are automatic, that the impact is as permanent as the feature itself and that the industry just has to live with the consequences. But this would seem to be a mistake. To the extent that, for any one policy development task, a feature is considered structural and relatively fixed (e.g. in the short term the UK's short electoral cycle will not change) and its impacts are seen as substantial (e.g. that policymakers tend to focus on policy design and announcement rather than implementation) then those engaged in attempting to influence policy, whether as stakeholder or as policymaker, will need to be aware of the associated tendencies in outcome (such as lack of durability of policy) and will need to create coping strategies if they are to see the desired results.

One consequence, in the case of CIP for example, is that stakeholders (the industry, say, or those parts of it wishing to see change through CIP) will need a more balanced view of sector policy. On the one hand the reasons why CIP in the form of Egan or Construction 2025 might have an inherent tendency towards failure are multiple and rooted in structural causes (many of which are listed above; see also section 6.3.3) rather than resulting merely from chronic poor engagement by the industry characterised as slow to change or conservative – or the notional 'sick patient' view of the industry referred to by Murray and Langford (*op. cit.*) and Farmer (2016) (see sections 6.2.4 and 6.2.5). On the other hand some of the reasons why Governments revisit CIP at regular intervals are also structural so the idea of CIP will most likely keep reappearing (for the reasons see section 6.3.3: Government is in some way accountable for outcomes such as housing delivered or infrastructure built; the sector employs large numbers of people who exercise power at the ballot box; questions of a Government's attitude towards Industrial Policy and growth periodically reappear; the public sector is perceived as the industry's largest client *etc.*).

Alongside this tension between the need for and flaws of sector policy is the observation, discussed in section 7.1.1.2 and the present section, that industry tends to over-estimate the capacity of central government (and BEIS in particular) to both influence the industry and to influence internal stakeholders even within the public sector. Policymakers on the Government side of the policymaking table who champion industry sector policy, who seek to corral industry into supporting the latest attempt at CIP, and who seek to similarly gain the support of other departments (Treasury, MHCLG *etc.*) are not likely to admit to lack of power or influence over the industry to ultimately achieve the desired results. Those relative few from industry who do care to allocate corporate and personal resources to engaging in developing CIP may similarly not be willing to admit that the Government side of the policy table does not necessarily have enough influence (power) to see that actors in the public sector can adhere to agreed policy, or to admit that the private sector may have difficulty in fulfilling its side of the bargain. Thus both sides may be unwilling to admit that the emperor policymaker has no clothes and so the cycle of CIP interest/engagement/design/launch/partial-implementation/withering/frustration, for structural reasons, is most likely to continue.

Yet the underlying conditions which all those contemplating taking part in the process wish to address - such as, say, flawed business model, poor productivity and innovation, shortage of skills/labour - remain just as pressing both for Government and industry (and its customers). From the point of view of industry, actors wishing to see change cannot afford not to be engaged with such processes either directly or through a third party (say a trade association, union or professional trade body) as to do so would risk a distorted public debate about policy. On the other hand a realistic strategy would seem to be to avoid placing total emphasis on the public policymaking process, with its modest chance of success especially at sectoral level, and so to also simultaneously seek other routes for change which are under more direct means of influence. Several participants indicated that this kind of semi-detached or dual approach to policy and industry change was their preferred option, based on their own organisation's strategic assessment of trends.

A striking example of this kind of dual approach was referred to by one of the participants, whose role was in offsite manufacturing (OSM) for housing, where they had a very active approach to engaging both with public policy and also with addressing working practice more directly within their own supply chain and claimed to be active in seeking like-minded business partners. Their reason for the dual approach was that in effect their need was for policy which was consistent with what they saw as the working and business practices necessary for their own business model to succeed (e.g. new policy was required for quality certification, warranty and finance for future customers for housing built with OSM techniques as opposed to those built with traditional techniques). Therefore in effect their strategy was to continue to invest in and develop their business model and, to protect that investment, new policy would be needed. The interview examined this twin strategy a little more: which comes first, the understanding of the direction of future policy leading to a certain business model, or vice versa ?

'.....it's chicken and egg isn't it. I guess it start... it didn't start with us deciding to do this.... it started with us looking at there's a.... UK plc has a huge challenge here, huge problem [of housing need]....'

and:

'The [businesses] that are saying I'm part of the problem I want to be the solution and we will work with them to create the disruptive models'

Thus the participant, and their organisation, chose to look beyond both existing Government policy and beyond existing industry capacity and claimed to take a more strategic approach in that they identified underlying needs and trends and aligned their business activity and engagement with policy to those needs. This balanced approach, based on a strategic view of future need, may illustrate a rational generic response to a weak policy process attempting to address major societal change (housing provision amidst skills shortages, climate change requiring new approaches to building and infrastructure provision including zero carbon targets): it may even amount to a model approach which could be considered by others.

Summarising in respect of findings concerning CIP, a rich database of structure, institutions and agency has been accumulated. While the immediate purpose was to use this data to improve the understanding of CIP, the same process enabled connections to be made between many different 'symptoms' of industry outcomes (skills, business model *etc.*) many of which could also be analysed singly beginning with use of the same database, augmented in future when necessary. An example of a summary narrative (for 'Low quality'), generated in this way, was discussed in section 7.2.1.1 and is shown in Figure 13. The narrative is just one view of causes suggested by the data collected – it is not to be seen as suggesting a definitive last word but it does illustrate the way in which the PEA process can be used productively at the level of both sector and subsector or specialised policy.

Summary of Objective (3) – findings concerning policy and use of the framework

The discussion of objective (3) has illustrated how it is frequently impossible to separate out CIP observations from any reference to the analytical device of PEA. At times it is more helpful to allow a more detailed consideration of CIP – in a sense a 'thick description' – to take priority and allow PEA to recede into the background. At other times the converse is true. Giddens' (*op. cit.*) recommendation about avoidance of the two extremes of either a domination of analysis by social theory or the complete avoidance of theory, and instead to use social theory as a sensitizing device, has been found to be an apt description of the nature of the present research.

Thus, the way in which PEA has been imported and adapted for Construction Management Research has been described. There were relatively few changes of substance, perhaps the most important of which was the way in which emphasis has been placed on those systemic features which are 'unlikely to change' rather than an over-precise or fixed interpretation of structure. Presentational changes to the PEA model enable it to have new uses, especially for collaboration (potentially) and application in small groups. To an extent this was an unexpected outcome but it is one which is potentially of great value to those wishing to engage with policy processes.

Finally, detailed observations concerning CIP have been made. Individually, many of these have been made by others in other contexts. Indeed, almost all were derived in some way from observations made by participants themselves. One is reminded of Giddens' view (*op. cit.*) that much social science research may appear not to be novel in itself but that, in contrast to research in more positivistic environments, what is relevant is that both researcher and participants are engaged in a process of change and recording change.

Nevertheless, in terms of CIP, it is possible to go further than such a view of what has been learnt. The application of PEA has enabled a more systemic view of CIP, the reasons why it is flawed, and the reasons why as a policy form it is likely to persist. It is suggested that the key finding from the application of a PEA approach is this systemic view of the network of influences on behaviour and outcomes and a sensitivity towards important structural features which may otherwise be overlooked as being either too obvious, too permanent or too difficult to bother with. One very specific aspect of this is that it provides a foundation from which to challenge the framing of policy problems in a superficial way by many of those involved in policy processes. Furthermore it has helped explain the terms on which stakeholders can feel able to engage, that is, with an awareness of the flaws and policy drivers for CIP while avoiding an over-reliance on inflated assumptions of the influencing capacity of central government or on any Government-led sector policy.

Therefore all the requirements of Objective 3 have been met or exceeded.

(4) 'To establish the degree to which the framework responds to the research problem and research question, and whether the framework can form the basis of a new approach to policy for construction in the future.'

In chapter 1, where the overall design of research was developed, objective 4 was included as a means of ensuring that at the close of the research process the findings of the research could be evaluated against the original purposes, as expressed in the research problem and question. Therefore the extent to which objective 4 has been met is assessed in the next three sections (8.1.2 to 8.1.4) where the research aim, question and problem respectively are re-examined.

8.1.2 Research aim

'To contribute towards an improved understanding of the policy process for construction by means of the formation and testing of a new analytical framework based on a Political Economy perspective'

While PE and PEA represent an apparently complex meshing together of different academic disciplines, in practice PEA in particular can be seen, in its roots, as simply being focussed around a process of understanding change and it draws insight from adjacent disciplines in order to generate a systemic view. There are perhaps two important principles in its use which can be stated at the outset.

First, while PEA does not represent a precisely defined body of theory it can be seen as a form of social theory. During its application in the present research there was found to be a

constant tension between the accumulation of description and the conscious application of theory. This tension was productive as a means by which description and interpretation could be constantly challenged, spurring a re-examination of data. This experience seemed to bear out Giddens' characterisation of social theory, of which his Structuration theory is one form, as primarily a 'sensitizing device' rather than one which should be allowed either to dominate or to be put to one side during research (1984:327).

The second observation is located within PE writing itself. It was noted earlier that the use of a PE approach is associated with a sequence of ever-deepening questions (Weingast and Witmann, *op. cit.*; see section 7.1). The approach to PEA developed during the course of this research allows the inquiry process to move from symptom towards cause and then from relatively malleable cause (institution) towards factors which are either fixed or difficult to change (structure). The process of analysis and writing permits additional explanations, and their lines of influence, to be considered and to accumulate. The PE idea of ever-deepening questions describes this process well. It is particularly helpful when analysing at the sector level rather than restricting the analysis to the level of say a sub-sector or a single specialised topic of policy, as it allows multiple layers of causation to be articulated. In the visual form developed here it illustrates that, while there are many observations concerning outcomes, and these outcomes are generated by the working together of many different factors, in fact there are relatively few structural factors present. These structural factors, though limited in number, are very significant both because they can be seen as the start of causation for many of the individual outcomes (skills, image, cheating *etc.*) and also because they (as structure) are both hard to change and influential, that is, they carry weight in how they either impede or influence change. To that extent, the search for and identification of structural features, some of which are by no means obvious such as that of GFCF (section 6.3.2), is characteristic of PE and PEA. For the understanding of CIP as a prelude to any later examination of more specific policies for construction, this capturing of root causes would seem to be very helpful. It also seems to be a stage in policy analysis which may tend to be overlooked (section 7.1.2) – or, alternatively, it may tend to be considered initially but then discarded as representing the contemplation of factors which are not capable of change. It seems very probable that normal political processes, with their emphasis on policy launch, the need to deliver on a manifesto within a single administration, and the normally short tenure of ministers, would tend to habitually avoid confronting fundamental causes and so frame the policy design 'problem' as one which deals with symptoms and superficial solutions.

Hence it is concluded that the research has successfully responded to the research aim in that an analytical framework, new to construction policy analysis, has been developed and tested. More specifically, a PEA approach has been imported from other fields of research into Construction Management Research and adapted for use with policy for construction. PEA does not exist in isolation but depends on its origins within political economy thinking and is enriched by the inclusion of theory from adjacent disciplines. PE/PEA stimulate holistic, systemic thinking and a search for fundamental causes which are often shared between different areas of policy within the chosen field of policy for construction. Therefore both the substantive findings concerning construction policy and the process by which they were obtained (PEA) are expected to be of value when other areas of policy for construction are the subject of analysis. Hence the research aim has been fully addressed.

8.1.3 Research question

‘To what extent is a Political Economy approach of value in understanding the mis-firing of construction policy, and in particular can techniques of Political Economy Analysis used in other policy arenas be adapted for use in the sector ?’

Chapters 2 and 3 made the case for the use of theory from outside of the scope of that which is normally used in the literature on what has been called ‘construction improvement’ and associated policy. Chapter 2 made the case that CIP must be understood by reference, not just to the specific features of the construction industry however difficult that may be to define, but also by reference to the wider notions of both Industrial Policy and ‘policy’ itself. The reason for this is that it is likely – as the research reported here has illustrated – that some of the chronic features of policymaking both at sector level (CIP) and at the level of sub-sectors, or of specific policy topics, are also to be found within other areas of policy. Indeed some recurring themes of CIP such as skills, productivity, and innovation are also concerns for other sectors and for the UK economy as a whole. For these reasons alone it seems unnecessarily limiting to look for any underlying causes of malfunctioning of policy for construction solely within its own curtilage.

There are two main streams of theory which are of relevance and from which the research has benefitted. First, generically, policy analysis of the type of interest here can be located within the academic discipline of political science. A number of observations made by participants were triangulated by reference to findings within other contexts of policy analysis and research covering specifically UK policy (see sections 6.3.1 and 7.2.1.4). In other words, evidence was generated to support the idea that features of policy observed by stakeholders within the UK construction industry, while serious in their consequences for construction policy, are not unique to the industry. For example an important set of observations was made concerning the emphasis by policymakers on policy design and announcement as opposed to implementation, development and review. Specifically, there is an inherent feature of the political process in the UK which tends to result in launches of policy without adequate attention being paid to implementation, and this is compounded by weak review processes which might otherwise have led to a correction of flaws in the announced policy.

The second and, for the present research, more important source of theory relates to any attempt to understand Industrial Policy, namely the broader context within which any CIP is located. Based on a literature review of IP, its recent history internationally and the various choices which are to be made when contemplating any programme of IP for a country, it has been shown that IP is closely related to not just economics but also to the broader field of Political Economy (see chapter 3). In the words of Glykou & Pitelis (2011:461) ideas of industrial policy rest on political economy ‘foundations’. Political Economy recognises that IP choices, and indeed the design of almost any policy, reflect not just questions of economic efficiency or optimisation of economic growth, but also are dependent on political choices and values within the society in question. PE was found to be both a very old idea, even pre-dating economics itself (H-J Chang calls Political Economy the original term for what later became known as ‘Economics’: 2014:273) and also one which has persisted through to the present day in terms of its relevance and development. A literature review showed that PE thinking has been applied by others to a wide range of policy areas, including industrial policy but also including many areas which are very far removed from industry and commerce. PE therefore

represents a well-established theoretical approach to many societal challenges including but not limited to 'policy'.

The present research therefore has benefitted from insight gained from the broad field of PE. If there is a limitation of PE it is that often the literature claiming to employ its theoretical base tends to pay at best only brief attention to explaining *how* the theory has been used (in defence of such writing, perhaps one would not really expect a work in, say, chemistry to explain all the relevant theory underlying chemistry). This lack of transparency concerning theoretical basis was found to be present even in the very small number of papers which claimed to use a political economy approach in areas which touched on the built environment, which were usually to do with the provision of housing or housing markets. This feature of much PE writing does place the researcher at a disadvantage when trying to interpret work claiming a PE orientation because, unlike more positivist-orientated disciplines, there is no dominant source or interpretation of what PE consists: just as, in fact, there are also many competing schools of 'economics' (Chang, *ibid.*). On the other hand PE was found to have the benefit, for research of the present type, of allowing and enabling a systemic view of any chosen policy problem. PE is also inter-disciplinary in nature, a '*family of approaches*' capable of drawing on and integrating theory and findings from a variety of disciplines and academic domains (Weingast & Wittman, *op. cit.*:3).

Further literature review identified an applied version of PE theory called Political Economy Analysis which has been used extensively, in many closely related forms, in the field of development economics (see section 3.2). Most often this has been in relation to programmes of change, investment or policy design in a variety of developing economies. It was found that various versions have evolved in recent years often under the sponsorship of agencies such as the World Bank and national aid organisations including the UK's DFID. The PEA community has also benefitted from a degree of support and research effort from academia. After investigation of the available techniques it was decided that not only was PE relevant and probably essential to the present research, but also that PEA had the potential to offer a theoretical lens which could be adjusted for use within the context of a first world economy and applied to policy for construction.

The inter-disciplinary nature of PE and PEA required a suitable methodology capable of integrating information and analysis from diverse disciplines. For this reason the philosophical approach determined to be most appropriate was that of interpretivism, combined with the use of conscious reflection (for the specific justification see chapter 4). In terms of method, data was collected by means of semi-structured interview with a diverse set of participants and analysed using abductive methods where the initial theoretical input reflected to some degree concepts imported from PE and PEA. Consistent with this approach, during interview it was found to be important to allow participants to speak from their own experience of the industry and to attempt to facilitate their reflection on policy, and the inevitable influence of the interviewer as participant needed to be taken into account.

While there was no specific intention at the beginning of research to develop a customised framework and visualisation of a PEA approach, over the course of analysis a graphical representation emerged in part out of the need to capture key themes in a useful way. Thus a working template was developed based on what was found to be the most useful versions of PEA models and guidance in the public domain, and the template was adapted for use with policy for construction. The visualisation is useful both for the lone researcher in capturing

multiple ideas, observations and lines of influence, but also in communication and sharing of understanding with others. This finding itself is linked to the recommendations discussed in sections 8.1.1 (3) and (4) concerning the capacity for future development and use in connection with policy.

Summarising, Political Economy was found to be of great value in understanding Construction Industrial Policy and by extension policy for construction as a whole. Use of PE thinking may even be essential to such a task. In terms of the second half of the research question, the techniques of Political Economy Analysis have been adapted for use in the sector. Furthermore, it proved both possible and helpful to adapt a PEA model, and the findings concerning policy for construction as summarised in section 8.1.1 suggest that the template can be of value in future research in related policy areas, as illustrated in Figure 14.

Therefore the research question has been fully addressed.

8.1.4 Research problem

In section 1.3.1, the research problem was identified) as follows:

'For construction policy, given the historic pattern of apparent difference between expectations and outcome (or 'mis-firing'), how can this be understood and is it possible that future policymaking could avoid conforming to the pattern ?'

During the research the overall problem remained unchanged. Sector level policy (CIP) was used as the unit of analysis in order to illuminate policy processes for construction in general. Difficulties of interpretation were identified with each aspect of the phrase Construction Industrial Policy, which led to a broadening of the range of issues which needed to be investigated, either through documentary sources or through interview or both. Some of these additional aspects have a direct bearing on the understanding of both the drivers for the formation of CIP and on the limitations within which the idea must work.

For example 'Construction' as an industrial sector was found to be associated with a variety of loose definitions often depending on the personal context of whichever speaker is consulted (see section 6.2.3). Perhaps one of the most useful approaches was expressed by one participant as being one of a core set of activities immediately associated with construction itself (including contracting, activity on site and roughly corresponding to the so-called narrow definition favoured by the ONS) surrounded by an outer ring of linked activities all of which are ultimately necessary for construction to take place but where those working would not always see themselves as part of the industry. Hence if CIP, as policy at the sector level, is to be meaningful then potentially it needs to influence not just the core industry but all or most of the linked activity in the outer ring – whereas some of these elements of the extended supply chain or business network are themselves typically seen as belonging primarily to other industry sectors. Examples of these, in the widest interpretation of the industry, include the

finance sector, clients (the biggest being the public sector itself) and academia: all of these were mentioned by one or more participants as forming part of the industry. The language of 'transformation' is often used in association with one form or another of CIP (see section 6.2.4) – and for such transformation to occur the narrow definition of the industry as the basis for CIP will therefore not suffice.

The next conceptual difficulty, not entirely separate from that of the first, is that while discussion during the development of CIP tends to focus on policy for the sector, CIP should be seen as being just another component of 'industrial policy' itself. Hence, because IP has for decades been a politically contested area for Government attention, CIP will tend always to also receive more or less attention (or neglect) by successive Governments. Therefore for stakeholders contemplating taking part in the formation of CIP there may appear to be a risk at least of wasted effort or worse as policy churn proceeds over time (see section 8.1.1.3 [b]). At the same time as governmental commitment to IP and CIP varies in terms of public rhetoric (and sometimes consistent commitment can be difficult to interpret even within a single Government), there is a strong evidence base to suggest that IP is always present *de facto* – perhaps best summed up by the view that even a deliberate absence of an explicit Industrial Policy is itself a policy. Accepted concepts of IP continued to evolve within public discourse even during the period of the research and these influenced UK government policy, most recently with the appearance of 'missions-based' IP, upon which the 2017/8 Construction Sector Deal and other sector deals are based (see section 2.5.1). This latest manifestation, which stresses a handful of major societal challenges as a way of stimulating commercial activity, is an attempt to move away from a dominance of IP thinking by sector-level policy which some see as being one of 'backing winners' or looking after incumbents. Such changes in attitudes towards IP illustrate the dependence of work at sector level on the thinking among policymakers concerning the place of IP and their assumptions around what sector IP should comprise and its usefulness, if any. Therefore any serious consideration of the drivers and constraints behind CIP must take into account this wider political context.

The third major difficulty is that of understanding the meaning of 'policy' and what implications that might have for any design of CIP. For some observers, including one participant, 'policy' means only what has been translated into law and enforced. Yet policy exists in a wide variety of forms, often for good reason, even including simply that of inaction by policymakers (see section 2.4). The hollowing out of Government resources in recent years has led to a change in the way in which policy, at the technical level, tends to be made (see 7.2.1.1). The role of ministers in policymaking – the point at which for some the technocratic approach meets the political – is not at all clear, in a situation where a minister's tenure is one of months rather than years (see section 1.3.1, 2.2, and 6.2.5). This is exacerbated by the way in which accountability for the many different aspects of the built environment is dispersed around several Government departments. In the words of a senior civil servant quoted earlier (section 6.2.3):

'[t]here is not a coherent government construction policy no it doesn't exist'.

Political discomfort with intervention by means of regulation (section 7.2.1.1), while co-existing with the political accountability of Government for economic growth and public prosperity, has led policymakers to seek alternative ways of influencing business and economic outcomes – the Construction Leadership Council is but one example of this, modelled on the Automotive Council which was formed in 2009 (section 2.5.1).

In addition to these three main conceptual challenges, other contextual features also serve to work against the viability of a national CIP for the UK (sections 6.2.3 and 6.3) – e.g. the variability of the nature of subsectors (the needs of major infrastructure projects versus relatively informal domestic maintenance); the variability of the industry across the different parts of the UK (such as varying demographics and the extent of use of migrant labour to fill skills gaps); and the growing ‘localisation’ of policy (devolution, city mayors, and the appearance of Local Industrial Strategies).

All of these challenges to the validity of the concept of CIP, and even to whether there is any public value at all in stakeholders pursuing it, pointed towards the necessity of broadening out the present research to incorporate ideas and learning from other disciplines, whether political science, economics or elsewhere. It is also necessary to consider not just the umbrella concept of CIP but all the individual components of policy for construction which have commonly been seen as belonging to it (skills, productivity, quality etc.). There are many reasons why a sector-based approach, and especially one involving so diverse and barely definable an industry as construction, can be seen as either flawed or severely challenged, nevertheless the idea of CIP – in one form or another, and for whatever reason – has periodically raised its head since at least 1944 through to the present day. It seems likely that this pattern will continue for the foreseeable future, implying that despite all the weaknesses behind the concept of CIP there must exist some strong drivers behind its persistence as a policy instrument, which this research has sought to identify (see sections 6.3.3, and 8.1.1 (4)b).

During the execution of the research a number of events of great significance for the industry occurred and which in aggregate challenge many aspects of *what the outcomes* of industry activity are and *how* they are achieved: Grenfell, Carillion, mental health, blacklisting etc. (see section 5.5.5 for a more detailed description). Brexit must also be mentioned as a continuing destabilising influence. Responses by participants confirmed that these events, considered together, represent a serious challenge to the business model of many actors in the supply chain. All of these major events, occurring as they did during the period of investigation, served to remind the researcher that the subject chosen – to do with how policy works for the industry - is not one of mere abstract curiosity but for any stakeholder affected by the future performance of the industry is one which needs to be better understood and better addressed.

Given such a developing context, it is to generate an understanding of the drivers and constraints around policy for construction that this research is designed. Most if not all of the work done is also relevant to the wider field of policy for construction – that is, to individual policies, not just to the concept at sector level - as illustrated by Figure 14. Any insight generated is expected to contribute towards improved policymaking for construction, and assist any stakeholder wishing to engage with this area of policy. In summary, the research problem is an accurate statement of the orientation of the research as implemented, and the findings which have been summarised in this chapter (8) are expected to contribute towards resolution of the problem.

8.2 A personal reflection by the researcher

Up to this point the thesis has included a handful of comments reflecting the researcher's own role in a former working life in connection with the subject of the research, policy for construction, by way of adding to the data available and hence supporting confirmation of one or two observations, including the need for the research in the first place (sections 1.2, 6.3.3, and 7.1.2). In a number of places, including the argument for the choice of methodology, reference has been made to the non-neutral role of the investigator, and the multi-disciplinary nature of political economy (section 4.3). To address all of these aspects and challenges of research at an early stage the researcher concluded that the use of conscious reflection would be of great benefit to the integrity of the research throughout (section 4.3.2). While this was found to be the case (e.g. in sections 5.8.3, 5.8.6, 6.1.2), and a separate journal was maintained containing notes on reflection throughout the research, up until now no more substantial reflection on the researcher's role and the way it may have influenced research has been included. Hence, section 8.2 seeks to redress the imbalance. After a brief autobiographical note, included to provide adequate context, the sequence of presentation broadly reflects the flow of research, from the initial problem through to findings.

8.2.1 Autobiographical note

The researcher's career, of in excess of 40 years, was spent in one or other aspect of the supply chain for construction. Much of it was in either an operational or an engineering role in the manufacturing of a variety of construction products, including the management of construction projects (i.e. design and construction of factory facilities for the manufacturing of construction products). Later roles included responsibility for safety, environment, energy and sustainability. An early example of these later roles, beginning in 2000, was involvement with the negotiation of company and industry sub-sector targets for carbon reduction under Climate Change Agreements; another was to do with establishing and negotiating voluntary agreements for waste reduction for a sub-sector within construction. These later roles led to progressively more contact with regulators, policymakers and client organisations at a time when sustainability began to provide a shared language of communication, however imperfect, between all such stakeholders in the construction sector. Aspects of the role included tracking trends and changes in legislation and policy affecting the construction industry, and supporting his employer in formulating appropriate business strategies. Over time, several roles, external to the business of his employer, were held: environment, technical and policy committees at trade associations, the Buildings Working Group of the Green Construction Board and a five-month period of secondment from his employer into the construction sector unit of BIS to assist in the development of Construction 2025. The latter ended on the day of launch of Construction 2025 in July 2013 when he returned to his employer. After a formal retirement in 2014, all contractual and employment links to the industry were ended in 2017. From this brief description it can be deduced that some prejudices about the nature of the construction industry, its strengths and weaknesses, and

the place of policy in relation to the industry might well have been acquired, whether consciously or otherwise.

Therefore, not only is it the case that any interviewer conducting research of the type described in this thesis should be self-aware of the extent to which the conduct of all phases of research might be influenced by the researcher's own world view, but also in the present instance the researcher has had very specific prior involvement in many aspects of the subject of research. In different circumstances the researcher may even have found himself as participant rather than investigator. For all these reasons there is an obligation on him to examine the extent to which his prejudices and world view might have influenced the conduct of research.

8.2.2 Research design

Experience within BIS, and involvement with the formulation of Construction 2025, even in a minor role, provided a rich experience of observing how policy might be shaped and the barriers both within Government and in industry which must be overcome. For that reason it offered a counter-balance to previous experience of policy and advocacy which began much more from an analysis of what was in the interest of an employer even if broader interests would be brought into consideration. With that introduction to the world of 'construction improvement' and its consequences came a sense that things might be done in a better way. In addition, the years working in sustainability and advocacy left one recurring question, namely, if there were to be a single overwhelming external need for change, would the industry be able to respond? The same question could be phrased as '*is the policy process fit for purpose?*'. Hence there is a direct line between such earlier experiences and the focus of the research, namely policy for the construction sector, and the idea that there is some kind of gap between expectation and outcome. A secondary, linked, motivation was to do with the idea that there has been an unanswered question in the UK over many decades, during which certain industries were observed to be in decline and/or the subject of acquisition from overseas: namely, might an explicit Industrial Strategy have a place as it appears to do so in certain other countries?

In terms of the influence on research design, positively, this background led the researcher to want to see a 'useful' outcome, namely one from which he might have benefitted had it been available over the last 20 years. Theory needed to be embraced but, it seemed, the research and its findings also needed to be something which could be recognised as helpful to practitioners in the field. Part of the way of achieving this amalgam of theory and practice seemed to be available by the use of interpretivism and conscious reflection. A particular debt is owed to the writings of Schön (*op. cit.*), concerning the place of the latter. The researcher was also aware of the wealth of knowledge and experience held by those in industry and campaigning organisations, a small part of which might become available through interviews and other routes. Hence, semi-structured interviews have formed a fundamental part of the source of data, helping to ground the research in practice.

8.2.3 Research: data interpretation, analysis and development of findings

A recurring question, present at the beginning but also especially as observation progressed towards analysis, was why bother with the idea of Construction Industrial Policy at all especially if it is so problematical and if the idea of industrial policy/strategy has such a chequered history in the UK (see section 6.3.3) ? Against this, the researcher has already declared a vested interest in the reputation of at least one attempt at CIP (Construction 2025). Conscious reflection has been necessary to enable neither extreme view of the place of CIP to triumph, but to instead use one side to act as a challenge to the other in an attempt to arrive at a more rational, perhaps fairer assessment of the drivers behind CIP. In this way the attempt was made to understand why, despite all the valid reasons why it ought not to work, the need for CIP is likely to persist, and even how it might be improved if opportunity is allowed, or seized upon, for a more fundamental challenge to its framing (section 7.1.2).

Past experience and ingrained patterns of response can become either an impediment to, or a foundation for, the development of new insight. Where the data being collected and interpreted is as overwhelmingly qualitative, rich and extensive as in the present case a certain amount of selectivity is inevitable. The researcher may tend to notice certain phenomena more than others, for example those which confirm rather than contradict his own instinctive interpretation – there may be an unconscious tendency towards confirmation bias. Such bias may reveal itself in tendencies towards: a defence of the record of the industry; defence of the idea of sector level policy; the prioritising of consideration of certain observations, influences and findings at the expense of other more challenging perspectives.

A positive effect of these biases might be the motivation to achieve something useful for stakeholders. A negative effect might be the use of too limited a consideration of data and analysis. Some of the negative impact can be offset by the use of analytical tools such as Nvivo and the use of Acrobat pdf files (see section 5.8.5.2) to facilitate interrogation of data. The risk of bias can also be counteracted to some degree by the cultivation of a mental watchdog through conscious reflection. A third way which was also found to be helpful was the use of theory (PE and PEA) to act as a notional neutral third party to challenge developing interpretation – in effect, just to ask ‘why?’. Finally, triangulation of both observation and analysis using other sources was found to be helpful (see sections 5.6, 6.1.1, 6.3). The use of these four techniques should have helped to reduce the risk of bias, but it is unlikely to have eliminated bias altogether. Therefore even the ultimate conclusions summarised in chapter 9 cannot be considered as a final answer but at best should be seen as just one stage in the evolution of the understanding of policy for construction.

Summary of Chapter 8

Reflection and Discussion

Chapter 8 represents the discussion section of the thesis and has sought to bring together the analysis included in earlier chapters and to identify findings. In doing so it has been necessary constantly to use political economy analysis theory, supported by political economy and political science, to interrogate the emerging interpretation of construction industrial policy as the unit of analysis. Conversely, the latter (CIP) has been used to test and develop an approach to the former (PEA) which can be applied to policy for construction as a whole. The elements of the research design set out in chapter 1 (problem, question, aim, objectives) have been used, in reverse sequence, as a means of showing how each part of the design has been fulfilled. The PEA template and model has been found to be useful as a way of stimulating research and as a means of constant challenge towards further inquiry in examining the gap between policy intention and design. The final part of the chapter was a personal reflection on the way in which the researcher's prior working life, and world view, might have distorted the research process at different stages, and the way in which these risks were overcome and used positively by the application of conscious reflection.

9 Conclusions

Chapter highlights:

Contribution to knowledge: using Political Economy Analysis; Construction Industrial Policy - limitations of the research - recommendations for future research – summary of findings

Introduction

The previous chapter included a detailed discussion of the findings of the research and the extent to which they met the expectations raised by the research objectives, aim, question and problem as set out in chapter 1. Chapter 9 begins with an evaluation of the contribution to knowledge made by the findings regarding both CIP and PEA, and the wider context of policy for construction. A consideration of the limitations concerning conclusions is included. The implementation of the research design has been found to continually stimulate thought regarding many unanswered questions of potential relevance to future researchers. Therefore recommendations for further research are discussed, which build on the findings concerning both construction policy itself and also the potential application of PEA in a wide variety of areas related to policy for construction. The final section of the chapter summarises the main conclusions from the research.

9.1 Contribution to knowledge

It is barely possible to separate out the theme of the process of adapting and testing the PEA framework from the theme of the insights into policy for construction which have been so generated. Each has supported the other. So, when describing the way in which PEA has been tested for use, it is necessary to refer to CIP observations – and vice versa. Yet at this final stage, and for the sake of clarity regarding the proposed significance of the work, the attempt is made here to focus separately on each of the two themes, beginning with findings regarding PEA.

The specific points of contribution described here are set out in the context of the detailed comparison, provided in chapter 8, of the research findings with the original problem, question, aim and objectives (Figure 1). To summarise, it was concluded that all objectives have been fulfilled and that the PEA model as developed as a visualising process and basis for collaboration has been found to go beyond the original anticipated scope.

9.1.1 An approach to understanding and developing policy for construction using the framework of Political Economy Analysis

Responds to the need for 'policy literacy'

The present research responds to calls in the literature for more work on 'policy literacy' for construction (Foxell & Cooper, 2015:405), as well as the researcher's own felt need, based on his earlier engagement with policy for construction over many years, for such literacy. There is, however, an existing body of work by earlier researchers in the field of 'construction improvement', particularly Green (2011), who covers a broadly similar scope to that chosen here. Such work by Green and others has tended to be from a critical perspective which has challenged the apparently prevailing assumptions that somehow the industry, and by extension those working within it, are obstinately incapable of responding to demands for change and instead shifted attention more towards external influences such as the way in which the sector had been hollowed out in terms of resources during earlier decades. The present research is offered not by way of a replacement of such a resource but to extend it and ultimately suggest a way in which policy analysis for construction can be not only retrospective but can also be useful in evolving future policy – so-called prospective policy analysis (see section 4.1).

An approach to policy analysis established elsewhere but new to construction

Instances of the use of a PE perspective for analysing construction policy problems have been rare (see section 3.4). Such papers as have been published are not explicit about how PE theory has been used, despite the fact that PE is a very broad and diverse field of study which might have been seen as a particular reason for at least a brief reference to theory. Regarding PEA itself, as a kind of weaponised version of political economy, no instances were found of its use for analysis of construction policy of any type. The deliberate and explicit import of PEA techniques into Construction Management Research and their successful adaptation, therefore, represents a novel and useful approach to research in this field.

The new PEA model makes systemic influences visible and stimulates challenge

The new PEA framework has been adapted specifically for construction and for use not just in summarising theory but as a means to also visualise the emerging analysis. Use of PEA has illuminated the systemic and multiple influences on CIP and other construction policy areas and made them visible (see sections 4.3.1, Chapter 7 Summary and 8.1.1 [4] a). In doing so perceptions of such influences have been made more open to challenge, debate and ultimately improvement. PEA, especially in the format developed in the present research, tends to stimulate a search for root causes and influences which otherwise can tend to be overlooked, either unintentionally or by design, by those engaging with policy (and this institutional avoidance can itself be linked, in PE/PEA terms, to a structural cause – see section 7.1.2). Hence use of PEA in this way has the potential to lead to 'better' policy, that is, policy solutions which are more compatible with the selected policy problem, which itself may have needed reframing as part of the process of analysis. Thus, use of PEA supports both retrospective and prospective policy analysis for construction.

The PE approach places CIP within its broader Industrial Policy context

If the history of Industrial Policy is patchy, inconsistent, frequently flawed and displays variable commitment from policymakers, for whatever reason, then the history of CIP is very unlikely to be any different (see sections 2.3 and chapter 3). A political economy approach provides a useful context within which to explore answers to the question about why a state should have Industrial Policy and CIP in the first place (section 6.3.3). Ideas of what constitutes Industrial Policy are themselves politically contested, fluid and have evolved considerably even during the course of this research (see sections 2.3 and 8.1.4). The use of PEA and its wider domain of PE therefore enables CIP to be placed, not just within its own sectoral context as has tended to be the case with the literature to date, but also within the context of wider societal approaches to Industrial Policy, and to generic policy – thus stimulating the awareness that the causes of failure or success of each may well be shared with the others.

The PEA approach enables the politics of policy to be addressed

Finally, PEA enables more specifically political aspects of the policy problem to be brought to the fore, in contrast with the tendency of analysts of policy for construction to concentrate only on the ‘technocratic’ features of policy and avoid confronting the politics (‘policy *is*... politics’ - Tony Blair quoted in Hallsworth & Rutter, 2011:20). (See sections 1.3.1, 2.2, 4.4). Hence, PEA does not replace a technocratic approach to policy but supplements it. PEA can be used at all stages of the policy cycle, from problem definition through to implementation, review and further adaptation, as a way of increasing the chances of success of a solution, the appraisal of which might otherwise have been dominated by technocratic considerations. The present research has shown how these principles can be made to apply to construction policy.

9.1.2 Findings concerning Construction Industrial Policy

At the outset it must be remarked that PEA was found to be helpful in making sense of an initially shapeless bulk of data and in communicating the results. In the preceding section (9.1.1) it was noted that PEA was found to support a more systemic, holistic approach to analysis than might be obtained by serially addressing individual features. A major finding is to do with the way in which use of PEA makes the systemic lines of influence visible and hence open to challenge and debate, leading to the improvement of the policy model and even potentially to the improvement of policy itself. Hence the findings concerning PEA which were discussed in sections 8.1.1 and 9.1.1 can be seen collectively as explaining how PEA was found to be helpful in generating insight into CIP. The specific observations and findings regarding CIP have already been addressed to some degree in chapter 8 so will not be repeated in detail here, but some of the more significant findings, which are relevant for the design and implementation of any future CIP, are as follows:

Government has less capacity to influence practice in the industry than is commonly assumed.

The common assumption made by stakeholders around the ability of Government to lead change in the industry by virtue of its 'commissioning power' is at best misleading. First, the public sector as a whole is associated only with 24% of purchases from the sector (Rhodes, 2018) compared with the typical assumption of 40% maintained by many participants. This misperception is compounded by the casual, and equally erroneous, assumption that all public sector spending is under the direct and strong influence of central government³⁵. Both central government and the public sector are far from 'monolithic' in terms of shared interests and in the degree to which any central view of policy can be imposed on this diverse group of public stakeholders across the whole construction sector. This trend is likely to be continued as a result of trends towards devolution, localisation, city mayors, regional powerhouses, and the introduction of local industrial strategy. Therefore, while one Government department (BEIS or its predecessors) has responsibility for leading on CIP, its powers of influence even on the Government/Public Sector side of the policy bargaining table would seem to be far more limited than is commonly acknowledged, or assumed, by those attempting to engage with policy. Admittedly there will be variation between sub-sectors (infrastructure is likely to be closer to the assumed pattern of strong central influence than say RMI) but in terms of attempts to make policy for the sector as a whole, those engaging with the process start from a weak position if new policy is made to depend on the capacity of Government to influence and lead the industry by use of commissioning or buying power. It is not the powerful panacea which many assume.

Construction may be unique after all

Any industry sector which lays claim to special treatment and uniqueness of challenges risks provoking outrage from other sectors. Much of the present research has illustrated that many of the apparently chronic conditions of the construction industry and its policymaking are in fact features shared with policymaking and industrial policy generically, so to isolate consideration of CIP to the sector alone is a flawed approach. Yet there is one sense in which construction is different from all others and this difference does seem to be related to some of the chronic features of the industry. Gruneberg and Francis (2019) have calculated that more than 50% of the UK's Gross Fixed Capital Formation is accounted for by construction and they show how this makes the industry especially vulnerable to economic cycles leading to a severe boom/bust impact on the industry, as referred to by several participants. No other industry sector displays this degree of dependence on capital spending in the economy and at such a scale. The high SME participation rate in the industry may be an additional reason why macroeconomic policy may have a differential impact on construction. The consequences of such an attritional influence seem to include many of the chronic features of the industry such as low investment in innovation and skills, a business model based on avoidance of risk, poor productivity, low incentives for collaboration, casualisation of labour, poor image *etc.* The

³⁵ The researcher now pleads guilty on both counts of flawed thinking in the past, but is far from alone in having committed the errors.

contrast between the relative permanence of many of the products of the industry (bridges, buildings, roads *etc.*) and the apparently precarious nature of working life in the industry is stark. The extent of the GFCF effect will need more research to properly substantiate but the explanatory power seems important, and the observations made during the present research add weight to the argument.

To the extent that the GFCF effect can be proved to be real, it supports the idea implicit in a PEA approach that, if institutions and agency are so constrained by such a structural feature then corrective policy measures will be required which are equally predictable and long-lasting. One policy measure proposed by some participants was counter-cyclical capital investment spending by the public sector, for example: but for this to lead to change in embedded patterns of behaviour such a measure needs to be securely part of national economic policy able to repeatedly survive regular changes in Government and ruling party.

CIP is a flawed concept....

Quite apart from Industrial Policy as a species suffering from a variable commitment over time by different Governments, and the sense that any understanding of IP's relevance, purpose and scope is perennially contested, CIP itself rests on shaky foundations. On the one hand, if a narrow definition of the industry is adopted as a basis for CIP, many opportunities for positive change will be missed. On the other hand a wide definition brings in actors from other sectors who themselves are constrained by factors far outside the scope of any dedicated construction policy to resolve or influence. The sector is large, diverse and fragmented. The personal perspective held by actors, and what they see as important, varies accordingly. If there are policy challenges shared between construction and other parts of the economy (skills, innovation, payment for example) then it is not obvious that construction should have its own version of such policy. Conversely, sub-sectors within construction are so different that if policy is nevertheless required which is more specific than CIP, then it is likely to be needed at the sub-sector level rather than at the level of a notional, loosely defined, 'construction industry'.

....but there are reasons why CIP will persist and should be engaged with

Given both the historic pattern of misfiring of CIP, and the structural reasons for the concept being flawed, why does it persist and why should stakeholders be concerned about it? There are structural reasons why the policy form, as a deliberate and explicit strategy rather than merely one which exists by virtue of neglect, will continue and these include: the size of the industry in relation to the rest of the economy, the numbers employed, the perceived link as an enabling sector to the success of other sectors (energy, transport, education *etc.*), the role of the public sector as chief client (with the caveat expressed above that this is less significant than usually assumed), the political opportunity the sector presents for the use of policy launch and announcement, and so on. So while the concept is flawed, and experience with it is unconvincing, the policy form will persist even if its political sponsorship will ebb and flow.

Not just individual factors and features but a systemic view

The research has highlighted a number of important structural and 'unlikely to change' factors and the way in which these work together and influence the characteristics of the industry. At the level of individual features of the industry there is relatively little which has not been remarked upon in one forum or another, but the novelty lies in the sense of their systemic effects, the way in which these can be seen to affect both CIP and also more specialised policy, and the way in which PEA makes the network of influences visible while simultaneously offering an explanation of why some of these structural influences tend to be neglected by policymakers.

Suggestions for stakeholders

Given the widespread habit of over-estimating the ability of central Government to influence practice, stakeholders may need to re-orientate themselves to be less dependent for the success of their individual business strategies on central discourse and policy for construction, and should consider alternative strategies. One of the objectives of stakeholders who do choose to engage with construction policy processes should be to counteract the institutional practice of Government to focus on superficial analysis of policy problems and solutions for construction: stakeholders can use PEA methods to illuminate root causes in order to arrive at more appropriate problem scoping and solutions. Stakeholders may need to cultivate greater reliance on more accessible change processes under more direct influence, but also based on a more strategic evaluation of future sources of change affecting the industry (the example of the participant working in offsite manufacturing was discussed in 8.1.1 [3] b). While the methodology employed here has been to emphasise systemic effects, the evidence also confirms the relevance of agency at an individual level, that is, while the observed 'system' deals with trends, change may in fact be driven by individual actors creatively acting differently from how institutional rules might suggest they ought to behave.

Visibility enables challenge and collaboration

Making the mass of influences and features visible (that is both in text form but also within the PEA model itself) enables challenge, communication, debate, and potentially collaboration. Some evidence for this was seen during interviews, in that the opportunity to reflect seemed to be welcomed by many participants, but the collaboration element will need to be tested in later research. Hence the contribution of the present research is to move a policy analysis process for construction policy towards being a potential foundation for a collaborative approach among stakeholders which can itself be part of the sense-making and policymaking process.

Relevance to policy for construction in other countries

The literature search showed that both PE and PEA have been used extensively in many countries and sectors. The model of PEA was developed here for use with construction policy within a UK context, which provided the data used for analysis. There seems no reason why the template should not be used in other national or regional contexts, as it makes no starting assumptions about local features or about cause and effect. In addition some of the core structural features are anyway likely to be shared across countries: such as the industry's inextricable link to place (and its probable consequences in terms of say fragmentation); the dominance of construction in terms of Gross Fixed Capital Formation (and its consequences in terms of vulnerability to boom/bust and the influence on business models); other influences such as local constitutional arrangements (which may affect the dominance of the electoral cycle and its consequences in terms of avoidance of root causes in policymaking); and so on.

And relevance to other sectors

Just as the PEA method and model as developed here are relevant to construction policy in other countries, they can also be used for other sectors. A debt of gratitude is owed by the researcher to extensive work by others in the field of PE and PEA including a wide variety of sector-based analysis in a wide variety of contexts. Therefore the idea and reality that PEA can be used widely is not new. The final PEA model however represents a modest addition to this valuable resource in terms of: its emphasis on structural and hard-to-change features, the way in which it has become a viable tool not just for communication of theory but for discourse, and potentially for collaboration. Hence it may help to fulfil the promise of PEA of being a practical part of the process for change, not just analysis.

9.2 Limitations

The focus of research represented an overarching approach to policy for a large industrial sector. Neither the sector nor the policy which impinges upon it have well-defined boundaries. These circumstances imply that the scope of the present research was ambitious and possibly contained a risk of failure, resulting from too great a bulk of data and a difficulty of associating these with any one chosen shape or definition of the industry. The justification for the selection of the subject of research was twofold: first, the history of apparent mis-firing of many attempts at such policy for the UK over many decades; second, PEA guidance recommends that sector-level analysis be carried out prior to more specific policy- or problem-based analysis. However, while there is strong justification for the scoping of the research despite the significant challenges of analysis, it is necessary to consider any limitations of the research design and their implications.

Only one cross-sectional study

First, while initially it was intended that a study at sector-level should be followed by one or more specific problem-based studies within the scope of the present research, early in the

research process it became apparent that the inclusion of the latter as a second phase of work would not be feasible at an adequate level of detail given the time frame and resources available. On the other hand, the data collected during interviews was very rich and does relate to a wide range of specific as well as sector-wide problems, in part because each interview commenced with a question on exactly that theme. So while the focus of the present research is indeed on CIP, it was found possible to use the same data as the basis for at least an initial examination of a number of policy challenges. For example, in section 7.2 an initial 'narrative' for one such policy area, 'Low Quality', was identified using relevant parts of the analysis from the sector/CIP level. As indicated earlier, this narrative is not offered as a definitive analysis but it does illustrate the flexibility and potential of the PEA approach. It is not a substitute for a supplementary study but is evidence supporting the PEA idea that sector level analysis enables and should precede more specific policy work.

Small sample size

Second, the sample size of 20 participants is small compared to the size of an industry which comprises scores of sub-sectors, thousands of companies and perhaps 3 million people. Related to the small sample size is its limited degree of representation of different groups. SMEs and micro-businesses were found to be difficult to reach (a problem which also bedevils formation of CIP itself), though three participants did in fact fall within this grouping at the 'medium' end of the SME range (see sections 5.3 and 6.2.6). Furthermore, if those participants were correct who saw the sector as embracing the outer reaches of the industry such as finance and clients (see section 8.1.1 [4] b) then a comprehensive view of the industry would necessitate interviewing a very large number indeed, perhaps measured in hundreds at least. As is normal, more people were approached than accepted invitations, and not all the accepted invitations resulted in actual interview. Ultimately, the final sample size was influenced by the need to make progress within the time constraints of a PhD programme. A further limitation is that participants were to a degree self-selecting in that, while deliberately only very limited information about the scope of interview was revealed beforehand, it is highly likely that those accepting the invitation to take part would be those with some prior interest and experience of policy. As a result, while participants were often very blunt and refreshingly honest about the workings of policy, it is possible that even more negative views would have been encountered with a cohort more representative of the whole sector.

Nevertheless, a wide variety of people were interviewed. Most of them had experience within different parts of the industry – for example, through secondments or normal career changes during a working lifetime. As a consequence the database collected is considered to be very rich in range and depth. Its usefulness was augmented through the triangulation process using relevant secondary sources. To the extent that the present research is to do with the twin aims of testing a method of analysis new to the sector to generate insight into policy for construction, the data collected seem to be more than sufficient not just for the present purpose but also for supporting further analysis of a number of aspects of the industry.

The role of the researcher

The risks of unconscious bias arising from the researcher's pre-existing world view and prior working life were discussed in section 8.2. These risks include: a tendency to defend the idea of CIP especially Construction 2025; a tendency to side with a business or industry view of policy rather than having a more detached view; and a general confirmation bias arising out of selection and prioritisation of observations. On the positive side, the researcher's prior experience was what cultivated the motivation to find a better way to understand and develop policy for construction, and that any findings in terms of both method and substance should be of practical relevance to stakeholders in the industry. Ways of mitigating risks of distortion were summarised (in section 8.2) as: the use of analytical tools to facilitate interrogation of data, conscious reflection, the use of theory to challenge developing interpretation, and triangulation of both observation and analysis through the use of other sources. It was concluded that bias can be reduced but not eliminated and that hence the conclusions should be seen as just one stage in the evolution of the understanding of policy for construction.

A snapshot in time

The development of the thesis has afforded an unusual degree of time for examination of many sources and the testing of observations. It has already been remarked (sections 5.5.5 and 8.1.4) that a number of major events have occurred during the period of research and that it is likely that such events, testing as they do the way in which the industry both performs and is perceived to perform, have influenced the views expressed by participants and how the researcher has interpreted those views. This flow of events continued right up to the time of submission of the thesis with the election on 12 December 2019, with a landslide, of a Conservative-led government. The new Government has both to focus on resolving Brexit as well as on questions of economic and industrial policy in order to support growth and broader social policy, as indicated in the Queen's speech of 19 December 2019 (HM Government, 2019). Whether or not Brexit and its consequences are seen as crisis or opportunity is a political judgement but they do call for soul searching by policymakers and it seems certain that yet another iteration of industrial policy will be generated. The 'local' dimension of industrial policy is likely to receive more attention as part of the Government's attempt to shore up its newly-won political support across the UK. Construction policy issues will also come to the fore as part of all of these processes, including the planned new spend on infrastructure and hospitals. Building safety and home ownership were also mentioned in the speech. The target of net zero carbon emissions by 2050 has been adopted which has potential implications for the way in which construction is performed. Taken together, this new group of changes would no doubt have influenced the research data and interpretation, and they serve to remind the researcher that the object of the inquiry is in a constant state of flux amid a complex context. The rationality which is available is most certainly bounded and conclusions drawn can only amount to a contribution, and a snapshot in time at best.

9.3 Recommendations for future research

Recommendations for further research and related activity fall into three broad categories: first, those to do with further development of the PEA approach and process (for use with policy for construction); second, recommendations for the application of the PEA process to a wide range of policy areas for construction in the UK; the final group of recommendations are associated with exploration of the use of PEA in other countries and sectors.

Section 9.1. opened with the admission that the separation of the process of PEA from the object of research (construction policy) can be unhelpful, yet to an extent is necessary in order to provide shape to the reporting of the analysis. In a sense all of the three groups of recommendations for future work can be the subject of research with a contribution to both process and substance in mind:

Further development of the PEA approach and process:

- Research into the ‘problem definition’ and the ‘plan for change’ aspects of the model, and into the use of supplementary techniques such as roadmapping and stakeholder analysis
- Research into the use of PEA as a collaborative tool

Construction in the UK:

- The use of public sector commissioning power to lead change in construction practice – is it over-rated and what are the alternatives ?
- The consequences of the GFCF effect for the industry, and what counter-measures are needed to offset them
- The reasons why certain stakeholders engage with construction policy and how they do so; the reasons why others do not engage and the consequences
- Strategies of stakeholders towards policy
- The political economy of major sub-sectors: housing, RMI, infrastructure
- SMEs, workers, employees – what is their interest in policy measures ?
- Any policy or sub-sector or change problem within construction
- Past, present and future policymaking (retrospective, processual and prospective)
- Processual research with any one problem – e.g. Hackitt, licensing, Sector Deal, CLC, MMC/OSM, ‘Digital Construction’ etc.

Comparative, international and inter-sectoral research

- Comparative PEA research (e.g. what structural features are shared, which ones are different; how do different countries address structural features, whether successfully or otherwise):
 - Compare policy for construction in the UK with that in other countries
 - The differences in policy for construction within the UK (Scotland, England, Wales, Regions, Cities)

- Comparison of policy for construction with policy for other sectors, in the UK and elsewhere
- CIP as part of IP: to what extent is sector policy driven by IP ?
- Inter-disciplinary work on the use of a PE/PEA approach

Summary of Chapter 9

Conclusions

A theory and a method of analysis have been imported from another domain, Political Economy, to enable policy analysis for construction. The two themes of the research, namely sector-level policy for construction for the UK (CIP – the unit of analysis) and Political Economy Analysis (PEA) as the theoretical framework, have been found to be mutually reinforcing: that is, PEA was used as a means of challenging emerging interpretation of CIP and conversely findings emerging from CIP have been used to test and develop a revised PEA framework. Hence the summary of conclusions must be read in the context of that mutual dependency.

The findings of the research, and their contribution to knowledge, include:

- *The research responds to the need for ‘policy literacy’ identified in the literature and supplements literature written from a critical perspective. It offers a means of policy analysis which is capable of being both retrospective and prospective.*
- *An approach to policy analysis established elsewhere has been applied and adapted for the first time in an explicit and visible way which is new to construction*
- *The new Political Economy Analysis model makes systemic influences visible and stimulates challenge, potentially leading to ‘better’ policy*
- *The Political Economy approach places policy for construction within its broader context of both Industrial Policy and generic policy*
- *The Political Economy Analysis approach enables the politics of policy to be taken into account, that is it offers a way of supplementing a purely technocratic approach to policy which by its nature is flawed*
- *There are similarities between the policy context of construction and that of other sectors, from which much can be learnt to challenge the idea that somehow construction performs uniquely badly because of internal flaws (the ‘sick patient’ proposition). On the other hand the sector does have unique structural features, especially the observation made by Gruneberg and Francis (op. cit.) concerning the dominant contribution by construction to the UK’s gross fixed capital formation. The likely consequences of such features offer a powerful explanation of a number of the symptoms referred to by industry stakeholders (vulnerability to boom-bust cycles, flawed business model, low innovation, poor skills etc.). Such structural features need to be taken into account when designing and implementing policy robust enough to survive changes in administration if the chronic features of the industry are to be addressed and replaced with more worthwhile embedded behaviours.*
- *Sector-level policy (CIP) is a flawed concept: the sector is diverse and fragmented; it is very difficult to offer a definition of the sector which is both clear and consistently useful; most policy belongs instead at the macro-economic scale, at the sub-sector level or at the level of very specific policy*
- *But there are reasons why CIP will persist and should be engaged with: the size of the industry in relation to the economy; the political significance of its 3 million workers; the apparent influence and accountability of central government for aspects of the*

industry; its position as an enabling sector; the interests of policymakers in policy launch and announcement

- *Central government has much less capacity to influence practice in the industry than is commonly assumed because the public sector is smaller, more diverse (with conflicting interests) and less centrally controlled than stakeholders often assume.*
- *Central government therefore has less agency than is usually assumed – and conversely, other stakeholders, especially larger businesses but also individuals, may have more agency than is usually assumed. Conclusions have been drawn for stakeholder strategies: stakeholders may need to adjust their strategies for engagement on policy to accommodate the flaws in sector policy including the institutional aversion by policymakers to looking at fundamental causes, taking a more strategic view of future sources of change; developing a dual-route for advocacy by engaging on policy for construction with Government while also giving greater emphasis to how stakeholders can themselves act as a source of change.*
- *The contribution of this research lies less in the identification of individual factors influencing policy for the construction sector and more in the bringing forward of a systemic view on the way in which they work together which can form the basis of analysis. The approach tends to lead to an identification of a more strategic approach to root causes which themselves tend to be overlooked in normal policymaking.*
- *The approach promotes visibility of systemic influences and hence enables debate, challenge, communication and potentially collaboration*

Limitations on the validity of findings include; a single cross-sectional study, the small sample size of participants compared with the size and diversity of the industry creating a risk of lack of representativeness of the participants, and unconscious bias on the part of the researcher arising from his previous working life. Ways in which the risks arising from these limitations have been mitigated during the research have been explained. Most importantly, the risks were identified early in the research process and the extensive use of conscious reflection, consistent with the chosen research philosophy of interpretivism, has been found to minimise but not eliminate the risk of distortion of research findings.

Recommendations have been made for future research and these can be summarised as falling into three categories:

- *first, those to do with further development of the PEA approach and process for use with policy for construction*
- *second, recommendations for the application of the PEA process to a wide range of policy areas for construction policy in the UK*
- *third, a group of recommendations have been made which are associated with exploration of the use of PEA for comparative, international and inter-sectoral research.*

A debt of gratitude is owed by the researcher to extensive work by others in the field of PE and PEA including a wide variety of sector-based analysis in a wide variety of contexts. Therefore the idea and reality that PEA can be used in diverse contexts is not new. The final PEA model however, and its adaptation for use with construction, represents a modest addition to the pre-existing valuable resource in terms of: its emphasis on structural and hard-to-change features, and the way in which it has become a viable tool not just for communication of theory but for discourse, and potentially for collaboration. Hence it is expected to help to fulfil the promise of PEA for construction, not just as a contribution to the analysis of past policy, but also as an integral part of the process for change.

References

- Acosta, A. and Pettit, J. (2013) 'Practice guide : A Combined Approach to Political Economy and Power Analysis Discussion Note Prepared for the Swiss Development Cooperation'. Institute of Development Studies. Available at: <https://www.ids.ac.uk/files/dmfile/ACombinedApproachtoPEandPAAMEjiaAcostaandJPettit2013.pdf>.
- Adamson, D. M. and Pollington, T. (2006) *Change in the Construction Industry*. Abingdon: Routledge.
- Aiginger, K. (2007) 'Industrial policy: A dying breed or a re-emerging phoenix', *Journal of Industry, Competition and Trade*, 7, pp. 297–323. doi: 10.1007/s10842-007-0025-7.
- Ambroziak, A. A. (ed.) (2017) *The New Industrial Policy of the European Union*. 1st edn. Switzerland: Springer. doi: 10.1007/978-3-319-39070-3.
- Bacchi, C. (2012) *Engaging with Carol Bacchi: Strategic Interventions and Exchanges*. Edited by A. Bletsas and C. Beasley. Adelaide: University of Adelaide Press. doi: 10.1017/UPO9780987171856.003.
- Bailey, D. and Cowling, K. (2006) 'Industrial Policy and Vulnerable Capitalism', *International Review of Applied Economics*, 20(5), pp. 537–553. doi: 10.1080/02692170601005481.
- Bailey, D., Cowling, K. and Tomlinson, P. (eds) (2015) *New perspectives on Industrial Policy for a Modern Britain*. Oxford: OUP.
- Bailey, D. and Driffield, N. (2007) 'Industrial policy, FDI and employment: Still “missing a strategy”', *Journal of Industry, Competition and Trade*, 7(3–4), pp. 189–211. doi: 10.1007/s10842-006-7185-8.
- Bailey, D., Glasmeier, A. and Tomlinson, P. R. (2019) 'Industrial policy back on the agenda : putting industrial policy in its place ?', *Cambridge Journal of Regions, Economy and Society*. doi: 10.1093/cjres/rsz018.
- Bailey, D., De Propriis, L. and Jürgen, J. (2015) 'New industrial policy for more inclusive and sustainable growth', *WWWforEurope Working Papers series*. Brussels: European Commission. Available at: http://www.foreurope.eu/fileadmin/documents/pdf/Policybriefs/WWWforEurope_PB_no09_D306.2.pdf.
- Baumgartner, F. R. *et al.* (2009) 'Punctuated Equilibrium in Comparative Perspective', *Political Science*, 53(3), pp. 603–620. Available at: <http://www.jstor.org/stable/25548140>.
- Baumgartner, F. R., Foucault, M. and François, A. (2006) 'Punctuated equilibrium in French budgeting processes', *Journal of European Public Policy*, 13(7), pp. 1086–1103. doi: 10.1080/13501760600924191.
- Baumgartner, F. R., Green-Pedersen, C. and Jones, B. D. (2011) 'Comparative Studies of Policy Dynamics', *Comparative Political Studies*, 44(8), pp. 947–972. doi: 10.1177/0010414011405160.
- Becker, G. S. (1983) 'A Theory of Competition Among Pressure Groups for Political Influence', *The Quarterly Journal of Economics*, 98(3), pp. 371–400. doi: 10.2307/1886017.
- Behavioural Insights Team (2015) 'The Behavioural Insights Team Update 2013-2015'. London: Behavioural Insights Ltd. Available at:

<http://www.behaviouralinsights.co.uk/publications/the-behavioural-insights-team-update-report-2013-2015/>.

BEIS (2016) *Statement from Greg Clark, Secretary of State for Business, Energy and Industrial Strategy*. Available at: <https://www.gov.uk/government/news/statement-from-greg-clark-secretary-of-state-for-business-energy-and-industrial-strategy> (Accessed: 18 July 2016).

BEIS (2018) 'Better Regulation Framework: Guidance'. BEIS. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/735587/better-regulation-framework-guidance-2018.pdf.

Besley, T. and Davies, R. (2019) 'Formulating Industrial Policy', *National Institute Economic Review*, 250(1), pp. 47–53. doi: 10.1177/002795011925000117.

BIS (2012) 'Industrial Strategy: UK Sector Analysis'. London: Department for Business, Innovation and Skills. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/34607/12-1140-industrial-strategy-uk-sector-analysis.pdf.

BIS (2013) *UK Construction: An economic analysis of the sector*, Department for Business Information & Skills. London. Available at: <https://www.gov.uk/government/publications/uk-construction-economic-analysis>.

BIS (2015a) 'Better Regulation Framework Manual: Practical Guidance for UK Government Officials'. London: BIS. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/468831/bis-13-1038-Better-regulation-framework-manual.pdf.

BIS (2015b) *Government welcomes new Construction Leadership Council*. Available at: <https://www.gov.uk/government/news/government-welcomes-new-construction-leadership-council> (Accessed: 2 June 2016).

BIS (2016) *Government going further to cut red tape by £10 billion*. Available at: <https://www.gov.uk/government/news/government-going-further-to-cut-red-tape-by-10-billion> (Accessed: 3 August 2016).

Bonfield, P. (2016) 'Each Home Counts: An independent review of consumer advice, protection, standards and enforcement for energy efficiency and renewable energy'. BEIS and DCLG. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/578749/Each_Home_Counts__December_20.

Booth, D. et al. (2009) 'Political Economy Analysis How to Note', *A DFID Practice Paper*. London: DFID. Available at: <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/5866.pdf>.

Booth, D. and Golooba-mutebi, F. (2009) 'Aiding Economic Growth in Africa: The Political Economy of Roads Reform in Uganda'. London: ODI. Available at: <http://www.odi.org/publications/3829-political-economy-roads-uganda-growth>.

Booth, R. (2019) *Grenfell group attacks lack of progress before second anniversary*, *The Guardian*. Available at: <https://www.theguardian.com/uk-news/2019/jun/10/grenfell-group-attacks-lack-of-progress-before-second-anniversary> (Accessed: 27 August 2019).

Boyer, R. (2005) 'How and why capitalisms differ', *Economy and Society*, 34(4), pp. 509–557. doi: 10.1080/03085140500277070.

Bresnen, M. (2007) 'Deconstructing partnering in project-based organisation: Seven pillars, seven paradoxes and seven deadly sins', *International Journal of Project Management*,

25(4), pp. 365–374. doi: 10.1016/j.ijproman.2007.01.007.

Broadberry, S. and Leunig, T. (2013) 'The impact of Government policies on UK manufacturing since 1945'. London: Foresight, Government Office for Science. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/277158/ep2-government-policy-since-1945.pdf.

Bryman, A. (2012) *Social Research Methods*. 4th edn. Oxford: Oxford University Press.

Buse, K. (2008) 'Addressing the theoretical, practical and ethical challenges inherent in prospective health policy analysis', *Health policy and planning*, 23(5), pp. 351–360. doi: 10.1093/heapol/czn026.

Business and Enterprise Committee (2008) 'Construction matters'. London: The House of Commons. Available at: http://www.parliament.uk/parliamentary_committees/parliamentary_committeeshttp://www.parliament.uk/parliamentary_committees/berr.cfm.

Butcher, L. (2018) 'Vehicle scrappage schemes'. London: House of Commons Library. Available at: <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8091>.

Cabinet Office (2011) 'Government Construction Strategy'. London: Cabinet Office. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61152/Government-Construction-Strategy_0.pdf.

Cairney, P. (2012) *Understanding public policy : theories and issues*. Basingstoke: Palgrave Macmillan.

Cairns, G. (2008) 'Advocating an ambivalent approach to theorizing the built environment', *Building Research and Information*, 36(3), pp. 280–289. doi: 10.1080/09613210801928164.

Caporaso, J. A. and Levine, D. P. (1992) *Theories of Political Economy*. Cambridge: Cambridge University Press.

Carassus, J. (2004) *The construction sector system approach: an international framework*. Rotterdam: CIB. doi: 90-6363-039-5.

Central Office of Information (1995) *Government and Industry*. London: HMSO.

Chang, C.-Y. (2015) 'A festschrift for Graham Ive', *Construction Management and Economics*. Routledge, 33(2), pp. 91–105. doi: 10.1080/01446193.2015.1039044.

Chang, H.-J. (1994) *The Political Economy of Industrial Policy*. London: The Macmillan Press Ltd.

Chang, H.-J. (2002) 'Kicking Away the Ladder', *Post-Autistic Economics Review*, (15 article 3). Available at: http://www.btinternet.com/~pae_news/review/issue15.htm.

Chang, H.-J. (2014) *Economics*. London: Bloomsbury.

Chatterjee, A. (2013) 'Ontology, Epistemology, and Multimethod Research in Political Science', *Philosophy of the Social Sciences*, 43(1), pp. 73–99. doi: 10.1177/0048393111415380.

Chilton, P. (2004) *Analysing Political Discourse - theory and practice*. London: Routledge. Available at: <http://voidnetwork.gr/wp-content/uploads/2016/10/Analysing-political-discourse-Theory-and-Practice-by-Paul-Chilton.pdf>.

Chmutina, K. *et al.* (2016) 'Unpacking resilience policy discourse', *Cities*. Elsevier B.V., 58, pp. 70–79. doi: 10.1016/j.cities.2016.05.017.

- Clark, B. (2016) *Political Economy - a comparative perspective*. Third. Westport, CT: Praeger.
- Clarke, S. and Ginsburg, N. (1976) *The political economy of housing*. London: CSE Books.
- Coase, R. H. (1937) 'The nature of the firm', *Economica*, 4(16 (Nov 1937)), pp. 386–405. doi: 10.1111/j.1468-0335.2008.00718.x.
- Cochran, C. L. and Malone, E. F. (2005) *Public Policy*. Third. London: Lynne Rienner.
- Coelho, M. C., Ratnoo, V. and Dellepiane, S. (2014) 'The Political Economy of Infrastructure in the UK'. London: Institute for Government. Available at: [https://www.instituteforgovernment.org.uk/sites/default/files/publications/Political economy of infrastructure in the UK final v1.pdf](https://www.instituteforgovernment.org.uk/sites/default/files/publications/Political%20economy%20of%20infrastructure%20in%20the%20UK%20final%20v1.pdf).
- Coelho, M., Dellepiane-Avellaneda, S. and Ratnoo, V. (2017) 'The political economy of housing in England', *New Political Economy*. Taylor & Francis, 22(1), pp. 31–60. doi: 10.1080/13563467.2016.1195346.
- Coen, D., Grant, W. and Wilson, G. K. (2010) *The Oxford Handbook of Business and Government*. Oxford: Oxford University Press.
- Cohen, M. D., March, J. G. and Olsen, J. P. (1972) 'A Garbage Can Model of Organizational Choice', *Administrative Science Quarterly*, 17(1), pp. 1–25. Available at: <http://www.jstor.org/stable/2392088>.
- Collinson (Ed.), S. (2003) 'Power, livelihoods and conflict: case studies in political economy analysis for humanitarian action', *HPG Report 13*. London: ODI. Available at: <http://www.odi.org.uk/resources/download/241.pdf>.
- Construction Products Association (2014) 'A Study of the Factors Underpinning Investment in the Construction Products Industry'. London: Construction products Association. Available at: [http://www.strategicforum.org.uk/download/downloads/CPA Investment Report - final online.pdf](http://www.strategicforum.org.uk/download/downloads/CPA%20Investment%20Report%20-%20final%20online.pdf).
- Construction Scotland (2016) *Construction Scotland Industry Leadership Group Membership*. Available at: <http://www.cs-ic.org/constructionscotland/industry-leadership-group/membership/> (Accessed: 27 July 2016).
- Construction Scotland (2019) 'The Scottish Construction Industry Strategy 2019-2022'. Construction Scotland. Available at: <http://www.cs-ic.org/media/3353/construction-industry-strategy2-for-web-copy.pdf>.
- Coyle, D. (2016) 'The Political Economy of National Statistics', *Manchester Economics Discussion Paper Series*. Manchester: University of Manchester. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2850061.
- Designing Buildings Wiki (2019) *Construction industry reports - Designing Buildings Wiki, Designing Buildings Wiki*. Available at: https://www.designingbuildings.co.uk/wiki/Construction_industry_reports (Accessed: 8 November 2019).
- Dhéret, C. *et al.* (2014) 'Towards a New Industrial Policy for Europe'. Brussels: European Policy Centre. doi: ISSN 1782-494X.
- DiSalvo, D. (2013) 'The Politics of Studying Politics: Political Science Since the 1960s', *Society*, 50(2), pp. 132–139. doi: 10.1007/s12115-013-9631-7.
- Downs, A. (1972) 'Up and down with ecology: The "issue-attention cycle"', *Public Interest*, 28, pp. 38–50. Available at: https://www.nationalaffairs.com/public_interest/detail/up-and-down-with-ecologythe-issue-attention-cycle.

- Drazen, A. (2000) *Political economy in macroeconomics*. Princeton: Princeton University Press. Available at: <http://press.princeton.edu/chapters/s6819.pdf>.
- Drazen, A. (2008) 'Is there a different political economy for developing countries? Issues, perspectives, and methodology', *Journal of African Economies*, 17(AERC Supplement 1), pp. i18–i71. doi: 10.1093/jae/ejm035.
- Edelmann, D. (2009) 'Analysing and managing the political dynamics of sector reforms: a sourcebook on sector-level political economy approaches'. London: ODI.
- Egan, J. (1998) 'Rethinking Construction: the Report of the Construction Task Force'. London: DTI. Available at: <http://constructingexcellence.org.uk/resources/rethinking-construction-the-egan-report/>.
- Eldredge, N. and Gould, S. J. (1972) *Punctuated Equilibria: An Alternative to Phyletic Gradualism., Models in paleobiology*. Edited by T. J. M. Shopf. San Francisco: Freeman, Cooper.
- European Commission (2019) 'What Is an SME?' Available at: https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en (Accessed: 9 July 2019).
- Evans, A. W. (1991) "'Rabbit Hutches on Postage Stamps": Planning, Development and Political Economy', *Urban Studies*, 28(6), pp. 853–870. doi: 10.1080/00420989120081091.
- Farmer, M. (2015) 'People and Money - fundamentals to unlocking the housing crisis'. Arcadis. Available at: https://www.arcadis.com/media/D/B/3/%7BDB3A15FD-23D0-4C95-9578-BBE1611D8A0E%7D9308_People and Money Report_WEB_LR.pdf.
- Farmer, M. (2016) 'The Farmer Review of the UK Construction Labour Model: Modernise or Die'. London: Construction Leadership Council. Available at: <http://www.constructionleadershipcouncil.co.uk/news/farmerreport/>.
- Fawcett, T. and Topouzi, M. (2019) 'What buildings policy might look like if we took climate change seriously', in *Earth and Environmental Science vol 329 /1*. IOP Publishing Ltd. doi: 10.1088/1755-1315/329/1/012004.
- Fée, D. (2019) 'Politique du logement et bien-être en Angleterre: perspective historique et réflexions sur la situation contemporaine', *Interventions économiques*, (62), pp. 0–20. doi: 10.4000/interventionseconomiques.6421.
- Fernie, S., Leiringer, R. and Thorpe, T. (2006) 'Rethinking change in construction: a critical perspective', *Building Research and Information*, 34(2), pp. 91–103. doi: 10.1080/09613210500491639.
- Fischer, F., Miller, G. J. and Sidney, M. S. (eds) (2007) *Handbook of Public Policy Analysis*. London: CRC Press. doi: 10.1016/0014-4886(90)90011-G.
- Fox, P. F., Scott, D. and Neale, R. H. (1999) 'Construction Industry Development and Government: a grounded theory approach', in Ofori, G. (ed.) *2nd International Conference on Construction Industry Development, and 1st Conference of CIB TG 29 on Construction in Developing Countries*, (), 27 Oct 1999 - 29 Oct 1999. Rotterdam: CIB, pp. 74–84. Available at: <http://www.irbnet.de/daten/iconda/CIB10100.pdf>.
- Foxell, S. and Cooper, I. (2015) 'Closing the policy gaps', *Building Research & Information*, 43(4), pp. 399–406. doi: 10.1080/09613218.2015.1041298.
- Ganley, J. and Salmon, C. (1997) 'The Industrial Impact of Monetary Policy Shocks: Some Stylised Facts'. London: Bank of England. Available at: <http://www.bankofengland.co.uk/archive/Documents/historicpubs/workingpapers/1997/wp68>.

pdf.

Giddens, A. (1984) *The Constitution of Society*. Cambridge: Polity Press.

Glykou, I. and Pitelis, C. N. (2011) 'On the political economy of the state, the public-private nexus and industrial policy', *Policy Studies*, 32(4), pp. 461–478. doi: 10.1080/01442872.2011.571860.

Grant, W. (1982) *The Political Economy of Industrial Policy*. London: Butterworths.

Green, D. (2016) *How Change Happens*. Oxford: Oxford University Press. Available at: <http://fdslive.oup.com/www.oup.com/academic/pdf/openaccess/9780198785392.pdf>.

Green, S. (2011) *Making sense of Construction Improvement*. Oxford: Wiley Blackwell.

Green, S. D. and Schweber, L. (2008) 'Forum Theorizing in the context of professional practice: the case for middle-range theories', *Building Research & Information*, 36(6), pp. 649–654. doi: 10.1080/09613210802423512.

Groak, S. (1994) 'Is construction an industry?', *Construction Management and Economics*, 12(4), pp. 287–293. doi: 10.1080/01446199400000038.

Groenewegen, P. (2008) 'Political economy', in Durlauf, S. N. and Blume, L. E. (eds) *The New Palgrave Dictionary of Economics Online*. Second. Palgrave MacMillan. Available at: http://www.dictionaryofeconomics.com/article?id=pde2008_P000114&edition=current&q=de-montchretien&topicid=&result_number=3.

Gruneberg, S. (2018) *A Strategic Approach to the UK Construction Industry*. Abingdon: Routledge.

Gruneberg, S. and Francis, N. (2019) *The Economics of Construction*. Newcastle: Agenda Publishing.

Hackitt, J. (2018) 'Building a safer future : independent review of the building regulations and fire safety : final report'. London: Department of Housing, Communities and Local Government.

Hallsworth, M., Parker, S. and Rutter, J. (2011) *Policy Making in the Real World, Institute for Government*. London. doi: 10.1111/twec.12234.

Hallsworth, M. and Rutter, J. (2011) 'Making Policy Better: Improving Whitehall's core business'. London: Institute for Government. Available at: <http://www.instituteforgovernment.org.uk/publications/making-policy-better>.

Hammond, P. (2019) *Chancellor Philip Hammond calls out late payment culture*. Available at: https://www.gov.uk/government/news/chancellor-philip-hammond-calls-out-late-payment-culture?utm_source=1fd0690b-9e15-4f67-803f-05ddf35c4cd2&utm_medium=email&utm_campaign=govuk-notifications&utm_content=weekly (Accessed: 19 August 2019).

Hardy, J. (2014) *Critical Political Economy of the Media: An introduction, Critical Political Economy of the Media: An Introduction*. London: Routledge. doi: 10.4324/9780203136225.

Harral, R. (2019) *Construction needs to change . But change must be client led, Futurebuild*. Available at: [https://www.futurebuild.co.uk/blogs--insights/construction-needs-to-change-but-change-must-be-client-led?utm_medium=email&utm_term=&utm_content=Construction needs to change. But change must be client led&utm_campaign=Newsletter 16.09.2019 - DL&utm_source=](https://www.futurebuild.co.uk/blogs--insights/construction-needs-to-change-but-change-must-be-client-led?utm_medium=email&utm_term=&utm_content=Construction+needs+to+change.+But+change+must+be+client+led&utm_campaign=Newsletter+16.09.2019+-DL&utm_source=) (Accessed: 17 September 2019).

Harris, D. (2013) 'Applied political economy analysis: A problem-driven framework'. London: Overseas Development Institute. Available at: <http://www.odi.org/sites/odi.org.uk/files/odi->

assets/publications-opinion-files/8334.pdf.

Harris, D. and Booth, D. (2013) 'Applied political economy analysis: Five practical issues'. London: ODI.

Harris, D., Jones, L. and Kooy, M. (2011) *Analysing the governance and political economy of water and sanitation service delivery*, London: ODI. 334. London. Available at: <http://r4d.dfid.gov.uk/pdf/outputs/water/odi-wp334.pdf>.

Heseltine, M. (2012) 'No stone unturned'. London: BIS. Available at: <https://www.gov.uk/government/publications/no-stone-unturned-in-pursuit-of-growth>.

Hill, M. (ed.) (1997) *The Policy Process - A Reader*. Second. Hemel Hempstead: Prentice Hall.

HM Government (2013) 'Construction 2025'. London: HM Government. Available at: <https://www.gov.uk/government/publications/construction-2025-strategy>.

HM Government (2015a) 'Digital Built Britain: Level 3 Building Information Modelling - Strategic Plan'. London: HM Government. Available at: <https://www.gov.uk/government/publications/uk-construction-industry-digital-technology>.

HM Government (2015b) 'Industrial Strategy - Government and Industry in Partnership'. London: BIS. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/306854/bis-14-707-industrial-strategy-progress-report.pdf.

HM Government (2017a) 'Building Our Industrial Strategy'. London: HM Government. Available at: https://beisgovuk.citizenspace.com/strategy/industrial-strategy/supporting_documents/buildingourindustrialstrategygreenpaper.pdf.

HM Government (2017b) 'Industrial Strategy'. London: HM Government.

HM Government (2018a) 'Industrial strategy - Construction Sector Deal'. London: HM Government. doi: 10.1049/ir:19930092.

HM Government (2018b) 'Local industrial strategies'. London: HM Government.

HM Government (2018c) *New Industrial Strategy Council meets as membership announced*. Available at: <https://www.gov.uk/government/news/new-industrial-strategy-council-meets-as-membership-announced> (Accessed: 14 November 2019).

HM Government (2019) 'Queen's Speech December 2019'. London: HM Government. Available at: <https://www.gov.uk/government/speeches/queens-speech-december-2019>.

HM Treasury (2003) 'The Green Book : Appraisal and Evaluation in Central Government'. London: HM Treasury. doi: <http://greenbook.treasury.gov.uk/index.htm>.

HM Treasury (2015) 'Fixing the Foundations: Creating a more prosperous nation'. London: HM Treasury. doi: 10.1017/S0008197300099359.

HM Treasury (2017) 'Autumn Budget 2017'. London: HM Treasury. Available at: <https://www.gov.uk/government/publications/autumn-statement-2016-documents/autumn-statement-2016>.

HM Treasury (2018) 'The Green Book: Central Government Guidance on Appraisal and Evaluation'. London: HM Treasury. Available at: www.gov.uk/government/publications.

HM Treasury and BIS (2011) 'The Plan for Growth'. London: HM Treasury. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/31584/2011budget_growth.pdf.

HM Treasury and BIS (2013) 'Government's response to the Heseltine review'. London: HM Treasury. Available at: <https://www.gov.uk/government/publications/governments-response-to-the-heseltine-review-into-economic-growth>.

Hodges, C. (2016) 'Ethical Business Regulation : Understanding the Evidence'. London: BIS. Available at: <https://www.gov.uk/government/publications/ethical-business-regulation>.

Høj, J. *et al.* (2006) 'The Political Economy of Structural Reform: Empirical Evidence from OECD Countries', *OECD Economics Department Working Papers*. Paris: OECD Publishing, p. 77. doi: 10.2765/42762.

Hudson, D. and Leftwich, A. (2014) 'From Political Economy to Political Analysis'. Birmingham: Developmental Leadership Programme (Birmingham University). Available at: <http://publications.dlprog.org/From Political Economy to Political Analysis.pdf>.

Infrastructure and Projects Authority (2016a) 'Government Construction Strategy 2016-20'. London: Infrastructure and Projects Authority. Available at: <https://www.gov.uk/government/publications/government-construction-strategy-2016-2020>.

Infrastructure and Projects Authority (2016b) 'National Infrastructure Delivery Plan 2016-2021'. London: HM Treasury. Available at: <https://www.gov.uk/government/publications/national-infrastructure-delivery-plan-2016-to-2021>.

Ive, G. (1990) 'Structures and strategies', *Habitat International*, 14(2-3), pp. 45-58. doi: 10.1016/0197-3975(90)90033-W.

Janda, K. B. and Topouzi, M. (2015) 'Telling tales: using stories to remake energy policy', *Building Research & Information*, 43(4), pp. 516-533. doi: 10.1080/09613218.2015.1020217.

Javid, S. (2016) *Business Impact Target : Written statement - HCWS574*. Available at: <http://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2016-03-03/HCWS574/> (Accessed: 20 May 2016).

Kattel, R. *et al.* (2018) 'The economics of change: Policy and appraisal for missions, market shaping and public purpose'. London: UCL Institute for Innovation and Public Purpose. Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/wp2018-06>.

Knill, C. and Tosun, J. (2012) *Public Policy - a new introduction*. London: Palgrave MacMillan.

Latham, M. (1994) 'Constructing the Team'. London: HMSO. Available at: <http://constructingexcellence.org.uk/wp-content/uploads/2014/10/Constructing-the-team-The-Latham-Report.pdf>.

Lindblom, C. E. (1979) 'Still Muddling, Not Yet Through', *Public Administration Review*, 39(6), pp. 517-526. doi: 10.2307/976178.

List, F. (1841) *The National System of Political Economy*. trans 1885. Longmans, Green, and Co. doi: 10.1002/9781118011690.ch16.

Macpherson, N. (2019) 'The UK must learn from its interventionist failures'. London: Financial Times. Available at: <https://www.ft.com/content/71b461cc-2ac3-11e9-9222-7024d72222bc> (Accessed: 11 February 2019).

Marshall, A. (1920) *Principles of Economics*. 8th edn. London: Macmillan.

May, T. (2016) *We can make Britain a country that works for everyone*. Available at: http://www.theresa2016.co.uk/we_can_make_britain_a_country_that_works_for_everyone (Accessed: 18 July 2016).

- Mazzucato, M. (2017) 'Mission-Oriented Innovation Policy: Challenges and Opportunities'. London: University College London (UCL Institute for Innovation and Public Purpose Working Paper). doi: 10.1080/13662716.2016.1146124.
- McLoughlin, C. (2014) *Political Economy Analysis Topic Guide*. 2nd edn. Birmingham: GSDRC, University of Birmingham. Available at: <http://www.gsdrc.org/wp-content/uploads/2015/07/PEA.pdf>.
- MHCLG (2018) 'Building a Safer Future - Independent Review of Building Regulations and Fire Safety: Final Report'. London: MHCLG. Available at: <https://www.gov.uk/government/publications/independent-review-of-building-regulations-and-fire-safety-final-report>.
- MHCLG (2019) 'Building a Safer Future'. London: MHCLG. Available at: <https://www.gov.uk/government/consultations/building-a-safer-future-proposals-for-reform-of-the-building-safety-regulatory-system>.
- Miller, S. M., Nelson, M. W. and Moore, M. T. (1998) 'Caught in the paradigm gap: Qualitative researchers' lived experience and the politics of epistemology', *American Educational Research Journal*, 35(3), pp. 377–416. doi: 10.2307/1163442.
- Moran, M., Rein, M. and Goodin, R. E. (eds) (2009) *The Oxford Handbook of Public Policy*. Oxford: Oxford University Press. doi: 10.1093/oxfordhb/9780199548453.001.0001.
- Müller, B. (2016) 'Policy gaps: future challenges for research', *Building Research & Information*. Taylor & Francis, 44(3), pp. 338–341. doi: 10.1080/09613218.2015.1089061.
- Murray, M. and Langford, D. A. (2003) *Construction Reports 1944-1998*. Oxford: Blackwell Science.
- Norris, E. and Adam, R. (2017) 'All Change and what can be done about it'. London: Institute for Government. Available at: https://www.instituteforgovernment.org.uk/sites/default/files/publications/IfG_All_change_report_FINAL.pdf.
- North, D. (1990) 'Institutions', *The Journal of Economic Perspectives*. Cambridge: American Economic Association, 5(1), pp. 97–112. Available at: <https://www.scribd.com/doc/52858859/Institutions-Institutional-Change-and-Economic-Performance-NORTH-Douglass-C>.
- O'Connell, D. (2019) *Persimmon boss to leave after 'distraction' over pay*, *BBC News*. Available at: <https://www.bbc.co.uk/news/business-46122407> (Accessed: 30 October 2019).
- Office for National Statistics (2019) *Section F : CONSTRUCTION*. Available at: <https://onsdigital.github.io/dp-classification-tools/standard-industrial-classification/data/SICmetadata.html?sic=Fxxxxx> (Accessed: 11 November 2019).
- Oxford English Dictionary* (2019). Available at: <https://www.lexico.com/en> (Accessed: 16 August 2019).
- Park, M. *et al.* (2011) 'Construction policymaking: With an example of Singaporean government's policy to diffuse prefabrication to private sector', *KSCE Journal of Civil Engineering*, 15(5), pp. 771–779. doi: 10.1007/s12205-011-1243-4.
- Parliament (2011) *Fixed-term Parliaments Act 2011*. UK: The Stationery Office. Available at: http://www.legislation.gov.uk/ukpga/2011/14/pdfs/ukpga_20110014_en.pdf.
- Pearce, D. (2003) *The Social and Economic Value of Construction*. London: New Construction Research and Innovation Strategy Panel.
- Pearce, D. (2005) 'The United Kingdom Climate Change Levy: a study in political economy'.

Paris: OECD, pp. 1–70. Available at:
[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en&cote=com/env/epoc/ctpa/cfa\(2004\)66/final](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en&cote=com/env/epoc/ctpa/cfa(2004)66/final).

Peersman, G. and Smets, F. (2002) 'The industry effects of monetary policy in the Euro area'. Frankfurt am Main: European Central Bank. Available at:
<https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp165.pdf?615e8f2c92db7cb856cc31eee5c7007c>.

Penrose, E. (1959) *The Theory of the growth of the firm*. First. New York: John Wiley.

Pettigrew, A. M. (1997) 'What is Processual Analysis?', *Scandinavian Journal of Management*, 13(4), pp. 337–348. Available at:
<https://www.sciencedirect.com/science/article/pii/S0956522197000201>.

Plimmer, G. (2018) 'Business model under strain', *Financial Times*, 16 December. Available at: <https://www.ft.com/content/a15ed306-ffaf-11e8-aebf-99e208d3e521>.

Pocock, M. J. O. *et al.* (2016) 'The Visualisation of Ecological Networks, and Their Use as a Tool for Engagement, Advocacy and Management', in Woodward, G. and Bohan, D. A. (eds) *Advances in Ecological Research*. Oxford: Elsevier, pp. 41–85. doi: 10.1016/bs.aecr.2015.10.006.

Poole, A. (2011) 'Political Economy Assessments at Sector and Project Levels'. Washington DC: World Bank.

Princen, S. (Co-ordinator) (2016) *European Union Policy Agendas Project*. Available at: <http://policyagendas.eu/> (Accessed: 2 August 2016).

Prindle, D. F. (2012) 'Importing Concepts from Biology into Political Science: The Case of Punctuated Equilibrium', *Policy Studies Journal*, 40(1), pp. 21–43.

Pryce, V. (2012) 'Britain Needs a Fourth Generation Industrial Policy'. Centre Forum. Available at: <http://www.centreforum.org/assets/pubs/4gip.pdf>.

Rahmani, F. and Leifels, K. (2018) 'Abductive Grounded Theory: a worked example of a study in construction management', *Construction Management and Economics*, pp. 1–19. doi: 10.1080/01446193.2018.1449954.

Rhodes, C. (2016) 'Industrial Strategy'. London: House of Commons Library. doi: 10.1080/03071842609421957.

Rhodes, C. (2018) 'Construction industry: statistics and policy'. London: House of Commons Library. Available at:
researchbriefings.files.parliament.uk/documents/SN01432/SN01432.pdf.

Rhodes, C. (2019) 'Industrial strategy'. London: House of Commons Library. doi: 10.1080/03071842609421957.

Rigby, J. *et al.* (2014) 'Limits to the Implementation of Benchmarking Through KPIs in UK Construction Policy: Insights from game theory', *Public Management Review*, 16(6), pp. 782–806. doi: 10.1080/14719037.2012.757351.

Rodrik, D. (2004) 'Industrial Policy for the Twenty-First Century'. Cambridge, MA: Harvard University (John F. Kennedy School of Government). Available at:
<https://research.hks.harvard.edu/publications/getFile.aspx?Id=146>.

Rodrik, D. (2008) 'Normalizing Industrial Policy'. Washington: Commission on Growth and Development. doi: 10.1007/s13398-014-0173-7.2.

Rosenow, J. and Eyre, N. (2016) 'A post mortem of the Green Deal: Austerity, energy

efficiency, and failure in British energy policy', *Energy Research and Social Science*. Elsevier Ltd, 21, pp. 141–144. doi: 10.1016/j.erss.2016.07.005.

Rowland, M. (2017) *Suicide statistics 'a wake-up call' for construction*. Available at: <https://www.constructionnews.co.uk/data/data-news/suicide-statistics-a-wake-up-call-for-construction-28-03-2017/> (Accessed: 28 November 2019).

Sabatier, P. A. and Weible, C. (2014) *Theories of the Policy Process*. 3rd edn. Edited by P. A. Sabatier and C. Weible. Boulder, Colorado: Westview. Available at: <https://westviewpress.com/books/theories-of-the-policy-process/>.

Schön, D. A. (1983) *The Reflective Practitioner - how professionals think in action*. Basic Books Inc. Available at: <https://ebookcentral.proquest.com/lib/lboro/detail.action?docID=1113868#>.

Schroeder, W. (2016) 'Germany's Industry 4.0 strategy: Rhine capitalism in the age of digitalisation'. London: Friedrich Ebert Stiftung. Available at: https://www.uni-kassel.de/fb05/fileadmin/datas/fb05/FG_Politikwissenschaften/PSBRD/FES-London_Schroeder_Germanys_Industrie_4.0_Strategy.pdf.

Schumpeter, J. A. (1943) *Capitalism, Socialism and Democracy*. London: Henderson and Spalding.

Schweber, L. (2015) 'Putting theory to work: the use of theory in construction research', *Construction Management and Economics*, 33(10), pp. 1–21. doi: 10.1080/01446193.2015.1133918.

Scottish Enterprise (2013) 'Building for the Future - Scotland's Construction Industry Strategy 2013-2016'. Glasgow: Construction Scotland. doi: 10.7554/eLife.00856.

Simon, H. (1972) 'Theories of Bounded Rationality', in McGuire, C. B. and Radnor, R. (eds) *Decision and Organization*. North Holland Publishing Company, pp. 161–176.

Smiley, J.-P. *et al.* (2013) 'Analysing the Discourses Surrounding Change and Reform in the Construction Sector: the Need for a Marriage Between Critical Theory and a Socio-Historical Cultural Perspective', in *Proceedings 29th Annual ARCOM Conference, Reading, UK*. Association of Researchers in Construction Management (ARCOM), pp. 445–454. Available at: <http://www.arcom.ac.uk>.

Smiley, J.-P., Fernie, S. and Dainty, A. (2014) 'Understanding construction reform discourses', *Construction Management and Economics*, 32(7–8), pp. 804–815. doi: 10.1080/01446193.2014.909049.

Smith Institute (2019) 'Parliamentary Launch and Roundtable: "A New Strategic Approach to the UK Construction Industry" (Smith Institute Seminar)'. London: Smith Institute.

Smith, P. (2014) 'BIM implementation - Global strategies', *Procedia Engineering*, 85, pp. 482–492. doi: 10.1016/j.proeng.2014.10.575.

The Shorter Oxford English Dictionary. 3rd edn (1983). London: Guild Publishing.

Thelen, K. (2004) *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan*. Cambridge: Cambridge University Press. Available at: <http://journals.sagepub.com/doi/pdf/10.1177/009430610503400524>.

Thelen, K. (2012) 'Varieties of Capitalism: Trajectories of Liberalization and the New Politics of Social Solidarity', *Annual Review of Political Science*, 15(1), pp. 137–159. doi: 10.1146/annurev-polisci-070110-122959.

Tompson, W. and Price, R. (2009) 'The Political Economy of Reform - Lessons from Pensions, Product Markets and Labour Markets in Ten OECD Countries'. Paris: OECD.

Available at: <http://www.oecd.org/dataoecd/51/5/46190166.pdf>.

Turner, B. S. and Whitelaw, J. (2001) *Prescott gives construction six months to improve safety*, *New Civil Engineer*. Available at: <https://www.newcivilengineer.com/prescott-gives-construction-six-months-to-improve-safety/810407.article> (Accessed: 27 March 2019).

Wajzer, C., Munro, R. and John, A. (2016) 'Creating and sustaining an effective strategic dialogue with business'. London: Institute for Government. Available at: <http://www.instituteforgovernment.org.uk/publications/creating-and-sustaining-effective-strategic-dialogue-business>.

Weingast, B. R. and Wittman, D. (eds) (2008) *The Oxford Handbook of Political Economy*. Oxford: Oxford University Press.

Whaites, A. (2017) 'The Beginner's Guide to Political Economy Analysis (PEA)'. London: National School of Government International. Available at: <https://www.gov.uk/government/news/nsgi-publishes-political-economy-analysis-beginners-guide>.

Winch, G. (2000) 'Construction business systems in the European Union', *Building Research and Information*, 28(2), pp. 88–97. Available at: http://scholar.google.co.uk/scholar?start=10&q=Winch+G&hl=en&as_sdt=0,5#9.

Wolstenholme, A. (2009) 'Never waste a good crisis: a review of progress since Rethinking Construction and thoughts for our future'. London: Constructing Excellence. Available at: www.constructingexcellence.org.uk.

Zhang, R. *et al.* (2019) 'Long-standing themes and new developments in offsite construction: the case of UK housing', *Proceedings of the Institution of Civil Engineers - Civil Engineering*, 172, pp. 1–34. doi: <https://doi.org/10.1680/jcien.19.00011>.

Glossary of terms used

This glossary, of mainly Political Economy terms used in the main text, is based on Booth *et al.* (2009:26), with additional material from North (1990), Collinson (Ed.) (2003), Harris (2013:6), Whaites (2017) and others. Additional terms are described in the researcher's own words.

Actors

An alternative word is 'stakeholders'. These may be literally active and hence engaged with policy processes. Others may be stakeholders with an interest in, and concern for, policy for construction but they may – for whatever reason – have decided not to engage directly with policymaking even though they may be strongly affected by its outcomes.

Agency

'...the ability of individuals, organisations and groups of collective actors to consciously deliberate and act strategically to realise their intentions...' (Hudson and Leftwich, 2014:6).

Development

The broad field of international aid and economic development, within which Political Economy Analysis has evolved as a working method.

Incentives

'Incentives are the driving forces of individual and organised group behaviour. They depend on a combination of: (i) the individual's personal motivations (material gain, risk reduction, social advancement, spiritual goals etc.), and (ii) the opportunities and constraints arising from the individual's principal economic and political relationships' Booth *et al.* (2009:26).

Institutions

'The rules, norms and conventions governing human interaction. Institutions may be formal in the sense of constitutional rules, codified laws and bureaucratic rule books, or informal in the sense of social and cultural norms.....' Booth *et al.* (2009:26).

See also North (1990): *'Institutions are the humanly devised constraints that structure political, economic and social interaction.'*

Whaites (2017:12) refers to a wider definition which includes the 'rules of the game' as well as the organisations:

'....the DFID Governance cadre has adopted this working definition:

Institutions include organisations, norms and rules: they provide the systems, rules and processes (formal and informal) that enable or hinder human activity. Institutions are usually driven by power, shaped and given direction by incentives and norms. The impact of these drivers determines the degree to which institutions reflect inclusion, accountability and effectiveness.'

In the present research the narrower PE/PEA meaning is adopted, as it is important to an understanding of the theory of PEA, unless the context makes it clear that formal organisations are referred to.

Interest groups

'Where individuals or organisations have similar aims and face similar incentives they may be recognisable as a distinct interest group' Booth et al. (2009:26).

Interests

indicating a sense of where personal motivations, financial or otherwise, might lead an individual.

Political Economy Analysis

'Political economy analysis is concerned with the interaction of political and economic processes in a society: the distribution of power and wealth between different groups and individuals, and the processes that create, sustain and transform these relationships over time' (Booth et al. 2009:26 who use verbatim the definition offered by Collinson (Ed.) 2003:3).

Politics

'The processes of conflict, negotiation and cooperation between interest groups in the use, production and distribution of resources.' Booth et al. (2009:26).

Rent and rent-seeking

'This refers to income generated by privileged access to a resource or politically created monopoly rather than productive activity in a competitive market. Some political systems revolve around the creation and allocation of such incomes – hence 'rent-seeking'' Booth et al. (2009:26).

Structure(s)

Booth et al. (2009:9) quote the DFID 'Drivers of Change' version of PEA: *'Structures [are] defined as the long-term contextual factors. Generally, these are not readily influenced, either because of the time scale needed, or because they are determined outside the country. Examples include economic and social structures, geo-strategic position, natural resource endowment, demographic shifts, climate change and technological progress.'*

Use of the word 'structure' can create difficulties in communication. In particular the sense of the word as used by Giddens (1984) is quite different from the meaning usual

within political economy. This contradiction is discussed in more detail in the main text, along with a proposed resolution (section 7.1).

Appendices

Appendix A: Policy analysis tools from political science

This paper seeks to make the case that CIP in the UK, as illustrated in particular by experience with the Construction Reform agenda, shows evidence of a persistent and serious mismatch between expectations of policymakers and outcomes, that this requires explanation and that wider fields of vision may assist the researcher. Political Science potentially is one lens (or, more accurately, many lenses) which has been developed for use in such situations. A field of academic research exists concerning policy and the policy process at a generic level (for example see Hill 1997, Moran *et al.* 2006, Cairney 2012, Sabatier & Weible 2014). Within political science, policy analysis has become recognised as a field of study in its own right (Cochran & Malone 2005: 29). This extensive armoury of techniques, is available for analysts of CIP.

These analytical techniques are variously referred to by political scientists as theories, frameworks and models, often interchangeably. Fundamental disputes regarding methodology and value are a feature of the discipline (DiSalvo 2013:138) – for example, between users of quantitative and users of qualitative methods, and between those seeking ‘*“laws” or “axioms” of political life*’ and those who hold that the ‘*analytical tools are far too blunt to ever develop such laws*’ (*ibid.*: 138). One view, expressed by Klein and Marmor in Moran *et al.* (2006:892, 893) is that ‘*...policy analysis (is) an art and craft, not a science*’. Choice of technique has methodological implications for the researcher. The purpose of this Appendix (A) is to summarise the main approaches, the extent of their use, and to consider their relevance to analysis of CIP processes.

Having declared these caveats regarding the nature and variety of methodology within policy analysis, the available ways of examining and viewing policy can be considered. Many models, theories and concepts (and, as will be seen, even metaphors) have been proposed for use in policy analysis and have been summarised by Cairney (2012) and by Fischer, Miller and Sidney (2007). Each model has its critics and protagonists from within academic political science, and often there are competing variants which use the same term (with the attendant risk of incommensurability). Some of the more significant models and theories are:

- **The policy cycle** – this is usually the starting point for a classical view of how policy decisions are made (it is discussed in more detail in the main text, section 2.2). It is more useful as an initial way of identifying certain features such as agenda setting, policy formulation, legitimation, implementation, evaluation and policy ‘*maintenance, succession or termination*’ (Cairney 2012:34) or as a guide for thought rather than as a theory as such (Jenkins in Hill 1997:31).
- **Comprehensive rationality** – Comprehensive rationality in policy making represents the idea that perfect information is available and that decisions can be made in a perfectly rational manner leading to optimum outcomes. In some ways this sits alongside the ‘policy cycle’ as an ideal, or as a starting point, rather than as a working model of the policy process.
- **Bounded rationality** – this concept recognises that, in practice, conditions for comprehensive rationality are not achievable and hence that instead rationality

is 'bounded' by uncertainty, incomplete information and complexity (Simon 1972). Simon examines strategies which can be deployed in such circumstances in order to arrive at a solution – which is not necessarily perfect but is 'good enough' – what Simon calls 'satisficing' (*ibid.*:170), the next concept.

- **Satisficing** – Simon was concerned with turning the concept of decision making under conditions of bounded rationality into reality by recommending procedures, including but not limited to computational tools, to assist the decision maker. Since Simon, the term 'satisficing' has been used frequently to describe typical features of policymaking (see, for example, Goodin, Rein and Moran in Moran *et al.* 2006:19, and Rhodes' discussion of policy networks [*ibid.*:233]).
- **Path dependency and incrementalism** – If the policy cycle represents an idealised view of the policy process, then path dependency and the associated idea of incrementalism in policymaking represents, for their advocates, a view rooted in a more pragmatic view of how the policy process works in practice. Gregory, in Hill (1997:175) and Cairney (2012:98) credit Lindblom (1979) for having first developed the concepts. For Lindblom incrementalism was how policymaking '*ought to be*' conducted – it was not just a description (*ibid.*: 517). While the merits of incrementalism have been disputed, the idea of policy inertia being the normal state of affairs seems to fit well with, and to be complementary to, the period of stasis in between short periods of rapid change as characterised under Punctuated Equilibrium Theory (see below).
- **Muddling Through** – this was a development by Lindblom of his ideas of path dependency and incrementalism to express what he saw as the way policy was determined in practice – see, for example Lindblom (*op. cit.*). It has been said that one of Lindblom's themes was his awareness of policy making as not just a technical or managerial problem of determining the correct solution or decision, but his position that the politics of power ('pluralism') needed to be taken into account – and indeed used in order to arrive at better, more viable solutions (see Gregory in Hill 1997).
- **Policy Networks** – The ways in which this term is used in political science have been explored by Smith in Hill (1997), by Rhodes in Moran *et al.* (2006) and Cairney (*op. cit.*:11,179). The most relevant features here are associated with networks of actors who in some way take part in or influence the policymaking process. Rhodes (in Moran *et al.* (2006):436) remarked that a criticism of policy networks theory is that it does not by itself explain policy change. This challenge leads into the next concept, Advocacy Coalition Framework to which Policy Networks is related.
- **Advocacy Coalition Framework (ACF)** – ACF builds on some of the ideas of Policy Networks and has been used to explain aspects of both stability and change over the long term. Sabatier was a key figure in its development (Sabatier & Weible 2014, Cairney 2012: 200). It addresses the whole of the process (i.e. implementation as well as policy formation) and challenges the idea of the policy cycle and its focus on discrete stages in the cycle. ACF also challenges assumptions about actors in the policy process being driven by 'instrumental rationality or material interest' (Cairney 2012:215) and instead

proposes *beliefs* to be the key to understanding how advocacy networks behave in influencing policy. ACF also challenges the idea that policy is essentially created by a narrow elite and instead requires a much wider field of influences to be taken into account, including the concept of structural influences such as social, economic and historical factors (*ibid.*:218; for the concept of 'Structure' in policy analysis see *ibid.*:111).

- **The garbage can model (and Multiple Streams Analysis [MSA])** – In contrast to ACF theory, the garbage can model is deliberately more restricted in its scope, but arguably offers significant insight into the agenda setting phase of the policy cycle. While the name might betray a rather cynical perspective on policymaking, the intention behind it is to explain the sometimes apparently almost random nature of circumstances under which a specific policy solution comes to be adopted and progressed. Cohen *et al.* (1972) is credited with originating the concept and it was later developed into the Multiple Streams Analysis framework (Zahariadis in Sabatier & Weible 2014: 25). The key elements of the garbage can model are as follows: first, at any one time a large number of policy 'solutions' exist, in concept form, but which have not been implemented; second, at the same time a large number of policy problems also exist which have not been addressed or dealt with; thirdly, these unmatched policy solutions and problems are not actioned (and they remain in the garbage can) until the right kind of policy champion or policy entrepreneur appears who is available and willing to make the connection between problem and solution and hence take up the cause with those influential among policymakers (Knill & Tosun 2012: 8-9).
- **Multi-level Governance (MLG)** – this concept recognises the need to consider not just policy influences at the level of the nation state but also from other directions including, say, that of the EU or the devolved and regional administrations in the UK. MLG is of importance for any consideration of IP and CIP in the UK.
- **Punctuated Equilibrium Theory (PET)** – While Punctuated Equilibrium originated as a theory in evolutionary biology (Eldredge and Gould, 1972) it was initially imported into policy analysis as a metaphor in an attempt to understand the occurrence of long periods of policy stagnation followed by rapid change and over time it became a sophisticated analytical tool (Prindle 2012). A key figure in the development of PET and its extensive deployment in policy analysis has been Baumgartner, see for example Baumgartner *et al.* (2006). PET can be, and has been, deployed qualitatively and quantitatively. For all its value as description, Prindle concluded that PET falls short of being a causal theory (2012: 38).
- **Rational Choice Theory (RCT)** – this term describes a family of techniques imported from economics (Cairney 2012:132). RCT enables models to be assembled and used to predict behaviour and to compare predicted with actual behaviour. There are many variants to the approach and hence RCT is said by Cairney (*ibid.*:133) not automatically to fall within any single ontological or epistemological world view. RCT tends to assume that people have perfect information and behave rationally to maximise the utility, in their view, of their preferences. As with other methods discussed in this appendix, RCT is to be

used to assist in the explanation and understanding of trends rather than to predict outcomes.

- **Game theory** – this approach, which is one of the techniques falling within the RCT family (Cairney 2012:137), seeks to uncover the calculus of participants in a bargaining process. Game Theory has been widely deployed in other disciplines, especially in economics but has also been used in policy analysis (Rigby *et al.*, 2014). However game theory addresses one part of the notional policy cycle, namely policy design, rather than either initial agenda-setting or implementation so its terms of reference are very limiting.
-

Appendix B: Interview Guide (final version, 4 September 2018)

Political Economy Analysis: Construction Industrial Policy

Questions as a guide for structured interviews and focus groups (researcher preparation)

Notes:

1. Discuss 'Information for participants' sent before the interview (key aspects are also referred to in this preamble).
2. **The scope of enquiry is the construction industry in the UK and the role of industrial policy for the sector.**
3. The table below sets out the themes to be explored in discussion with interviewees.
4. The actual wording to be used in interviews is likely to be slightly different from that used below, depending for example on the exact role of the person/organisation being interviewed.
5. It is anticipated that some of the basic factual information will be collected via desk research to allow interviews to concentrate on individual perspectives of interviewees.
6. Anonymity of answers is guaranteed: identity of participants will not be revealed in any subsequent reporting.
7. Interviewees are invited to answer in their personal capacity rather than on behalf of an organisation.
8. It will be stressed that the co-operation of interviewees throughout is voluntary, and they are of course able to decline to answer any individual question.
9. The broad areas of enquiry are shown in the left hand column. The right hand column interprets these, where necessary, in order to indicate starting points for questions to be put to interviewees. Questions are to be used as a guide to discussion rather than as a rigid list
10. Questions and answers should not be solely backwards looking. *Italics* indicate an optional question
11. Of particular interest are aspects which may be undergoing change, or are at risk of change (e.g. shift from home ownership towards more rental) or which have the potential for change as a result of internal or external factors.
12. As far as possible similar questions will be used for all participants.
13. It may be helpful for participants to think about change processes with which they may have been, or are, engaged (e.g. BIM, OSM, low energy buildings).
14. If the participant is willing to proceed: the consent form is to be signed immediately before the interview commences.

	Heading or theme –	Questions for interview
1 H	<p>Participant Information</p> <ul style="list-style-type: none"> - <i>Participant's experience and role</i> <p>Information relevant to subsequent analysis (consistent with confidentiality)</p>	<p>Please briefly describe who you are:</p> <p>Profession or trade, industry sector or activity, time in the industry</p> <p>Roles and responsibilities within your business or sector.</p>
2 H	<p>Setting the context:</p> <ul style="list-style-type: none"> - <i>Setting the context – the industry and current challenges</i> 	<p>In your view, what are the top 3 or 4 current challenges in the sector (e.g. where there is pressure or need for change) ?</p> <p>What activities, in your view, should be seen as part of the construction sector ?</p> <p>How useful it, in terms of policy, to see construction as a single sector? (i.e. for the UK). All the time or just in relation to specific topics ?</p> <p>To what extent do you see it as appropriate for Government to influence industry (and market) activity – both in general and within the construction sector ?</p> <p>Conversely should business attempt to influence or interact with Government ?</p> <p><i>To what extent are you aware of any overarching national, regional or local Industrial Policy (or Strategy) for Construction ? Or of national Industrial Policy in general ?</i></p> <p><i>Is there a way in which you (or your organisation) can have an input into strategy, either directly or, say, via a trade association ?</i></p>
3 H	<p>Decision-Making:</p> <ul style="list-style-type: none"> - <i>Decision-making in construction</i> 	<p>How do specific policy areas and topics get prioritised for action ?</p> <p>To what extent can these topics be seen as specific to the sector or are they shared with other industry sectors ?</p> <p>How are decisions made within the sector ?</p> <p><i>Who is party to these decision-making processes ?</i></p>
4 HM	<p>Historical legacies:</p> <ul style="list-style-type: none"> - <i>Past events and their influence today</i> 	<p>What do you see as being the key events in the past (such as attempts at reform, or economic cycles) which influence current circumstances ?</p> <p>How do these events and prevent or enable change ?</p>
5 H	<p>Implementation Issues:</p> <ul style="list-style-type: none"> - <i>Implementation of decisions and policy</i> 	<p>Once made, are decisions implemented ?</p> <p>To what extent do outcomes match the expectation of policymakers and of other stakeholders ?</p> <p>What holds up, delays or enables progress ?</p> <p>What are the reasons for policy success or failure ?</p>
6 H	<p>Institutions, regulation:</p> <ul style="list-style-type: none"> - <i>Formal and informal institutions, culture</i> 	<p>In terms of the day to day conduct of the business of construction, what has the biggest impact, what do people pay most attention to:</p> <ul style="list-style-type: none"> • Informal rules of custom and practice, culture ? • Regulation • Standards

		<ul style="list-style-type: none"> • Codes of practice • Enforcement
7 HM	Roles and responsibilities: <ul style="list-style-type: none"> - <i>Roles, Responsibilities and Stakeholders</i> 	<p>Who are the key stakeholders in the sector?</p> <p>What are the formal/informal roles and mandates of different parties?</p> <p>What is the balance between central and local authorities or agencies in involvement with the industry ?</p>
8 M	Ownership Structure and Financing: <ul style="list-style-type: none"> - <i>Ownership Structure and Financing</i> 	<p><i>What is the balance between public and private ownership and investment ?</i></p> <p><i>How is the sector financed (e.g. public/private partnerships, user fees, taxes, private investment) ?</i></p>
9 HM	Power Relations: <ul style="list-style-type: none"> - <i>Power Relations and influence</i> 	<p>To what extent is power vested in the hands of specific individuals and/or groups ?</p> <p>How do different interest groups outside government (e.g. the private sector, NGOs, consumer groups, the media) seek to influence policy ?</p> <p>Are there any interest groups which exert too little influence, in your view ?</p>
10 HM	Governance: <ul style="list-style-type: none"> - <i>Governance, legal and ethical aspects</i> 	<p>How well run is the sector in terms of compliance with legal and ethical expectations ?</p> <p>Is there significant abuse of power or influence in the sector?</p> <p>Where is this most prevalent (e.g. at point of delivery; procurement; allocation of jobs, planning) ?</p> <p>Who benefits most from this?</p> <p><i>How is patronage, if present, being used and to what ends ?</i></p>
11 HM	Delivery of benefits of construction activity: <ul style="list-style-type: none"> - <i>Who benefits ? Are any groups excluded ?</i> 	<p>Who are the primary beneficiaries of activity in the sector ?</p> <p>Are particular social, regional or ethnic groups included/excluded ?</p> <p><i>Are subsidies provided, and which groups benefit most from these ?</i></p>
12 HM	Ideologies and Values: <ul style="list-style-type: none"> - <i>Ideologies and values – do they drive or prevent change?</i> 	<p>What are the most important beliefs and values inside and outside the sector which influence the sector?</p> <p>To what extent do these slow down or limit change?</p>
13 HM	Potential for Reform: <ul style="list-style-type: none"> - <i>Potential for reform – winners, losers, champions and resistance</i> 	<p>Who are likely to be the “winners” and “losers” from particular reforms?</p> <p>Are there any key reform champions within construction? Who is likely to resist reforms and why?</p> <p>Are there “second best” reforms which might work?</p>
14 H	Summary and AOB	<p>On final reflection, is there anything you would like to add or stress as being particularly important?</p>

	- <i>Summary and AOB</i>	Would you like to offer any feedback on the interview process and how it could be improved ?
15	End recording Other potential participants ? Close	

Note: In column 1 the relative priority of questions, High Medium or Low, is indicated by H M L respectively.

Appendix C: List of all nodes used for coding

List of all nodes used for coding

	Node	Child Node	Child child node
1	Actors		
2		<i>actors (active)</i>	
3		<i>stakeholders (including passive actors)</i>	
4			beneficiaries
5			other stakeholders
6	Challenge		
7		<i>assured performance</i>	
8		<i>carbon</i>	
9		<i>casualisation of workers</i>	
10		<i>competitors</i>	
11		<i>Demand</i>	
12		<i>Diversity (lack of)</i>	
13		<i>Economy</i>	
14		<i>energy market</i>	
15		<i>Fragmentation</i>	
16		<i>health and safety</i>	
17		<i>housebuilding</i>	
18		<i>Image of the industry</i>	
19		<i>industry business model</i>	
20		<i>innovation</i>	
21		<i>Lead-Communicate</i>	
22		<i>mental health</i>	
23		<i>political-legal</i>	
24		<i>productivity</i>	
25		<i>professionalise</i>	
26		<i>Resource efficiency</i>	
27		<i>Skills</i>	
28		<i>technology</i>	
29	Change		
30		<i>barriers to change</i>	
31			fragmentation
32			Other barriers
33			political
34		<i>forces for change</i>	
35		<i>potential for change</i>	
36			champions
37			losers
38			routes for change
39			winners
40	Governance (general)		
41		<i>corruption and rent seeking</i>	
42		<i>governance (other)</i>	
43	Historical legacies		
44	Ideologies and values		
45	Implementation		
46		<i>barriers and enablers</i>	
47		<i>effectiveness</i>	
48	Industrial Policy		
49		<i>CIP awareness</i>	
50		<i>CIP or IP</i>	
51		<i>Industrial Policy (substance)</i>	
52	Influence and engagement		
53		<i>Const Ind influence on Gov</i>	
54		<i>Gov influence on Const Industry</i>	
55		<i>other influence routes</i>	
56		<i>sector specific or generic policy</i>	
57	Institutions		
58		<i>formal institutions</i>	
59		<i>informal institutions</i>	
60			cheating and gaming
61			culture
62			emergence
63			examples
64			polycymaking
65			social networks
66	Motivations		
67	Policy processes		
68		<i>agenda setting</i>	
69		<i>General processes</i>	
70		<i>implementation</i>	
71		<i>policy design</i>	
72		<i>policy evaluation</i>	
73	Potential Quotes		
74	Structure		
75	What is construction		
76		<i>one sector or many</i>	
77		<i>Scope</i>	

Summary:	
Nodes	15
Child nodes	47
Child child nodes	15
Total	77

Ends.