Post Keynesian Pricing Theory 'Reconfirmed'(?)

A Critical Review of 'Asking about Prices'*

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1. Introduction

Following a series of preliminary discussions (Blinder 1991,1994; Blanchard 1994), the results of one of the most eminent American economist's investigation into pricing behaviour has been published. Alan Blinder's book, written with the help of his associates, Elie Canetti, David Lebow and Jeremy Rudd is entitled 'Asking about Prices: A New Approach to Understanding price Stickiness'.

This title clearly conveys the aims of the book. It investigates the question 'why do nominal prices react so slowly to business cycle developments' (p3) by exploring the microfoundations of pricing. Moreover, the author's eschew the neoclassical economist's usual intellectual tool of testing hypotheses by econometrics because of its 'abject failure' (p3) to make headway on this research question. The reason for this, the authors argue, is that price stickiness is an elusive concept to measure. On the one hand sticky prices are defined relative to Walrasian market-clearing prices; however there is no specified metric upon which to base such comparisons as Walrasian prices are hypothetical. Consequently, choosing between rival theories that are each formulated in comparison to Walrasian prices is impossible (Blinder et al, 1998, p6). On the other hand, several prominent theories of price stickiness, such as menu costs and implicit contracts, for example, rely on unobservable variables.

This review assesses Blinder's project. As two researchers who have investigated pricing using the same 'unorthodox' techniques as Blinder we welcome his efforts and congratulate him on stepping out of the intellectual straitjacket of econometrics. We would like to offer supporting evidence of many of his findings as well as a

methodological critique of the project and argue that much of his material in fact can be seen to support a body of theory already in existence - post Keynesian pricing theory. As such we would like to argue that in connection with a more thorough literature review, and clearer methodological underpinnings, one can more fully appreciate the significance of Blinder's work.

The paper proceeds as follows. Section 2 briefly reviews Blinder's approach. Section 3 presents the main findings of the research and relates it to other research not referred to by Blinder. Section 4 discusses some fundamental methodological issues associated with the testing of theories in economics. Section 5 reinterprets Blinder's findings main empirical findings. In short, we argue that while Blinder's results raise a lot of questions about the theories tested and, indeed, neoclassical economics, the results provide a lot of support for post Keynesian pricing theory.

2. Resume of Asking about Prices

The central objective of Blinder's study was to obtain a statistically generalisable understanding of price stickiness by testing twelve theories of price stickiness through asking executives about their opinions on the validity of the theories. Blinder's research design involved choosing executives working in industries that comprised a random sample of U.S. G.D.P. Blinder felt that earlier studies, such as Hall and Hitch (1939) involved data that were neither random not representative since most of the sample reflected personal contacts. Accordingly, 'the data cannot support formal statistical analysis' (p39). Though broader in scope Blinder also argues that Fog's (1960) analysis was not statistically representative of Danish manufacturing. The same applies

to Kaplan *et al's* (1958) analysis of pricing objectives. The project thus involved 200 structured interviews being conducted with business people in the North Eastern United States.

In keeping with the thrust of Blinder's research design, structured interviews were conducted to maximise statistically representative, that is codifiable, responses (p49). Face-to-face interviews were conducted to maintain the quality of responses. To this end interviewer effects were minimised by training and discussion of appropriate interpretation of responses.

The Northeast was chosen for its near representation of the US economy in terms of the composition of U.S. industry, for example, reflected in the value of G.D.P. accounted for by manufacturing, trade, services, construction and mining and transport, communications and utilities. The area accounts for about 43% of US G.D.P. To avoid problems of bias, the sampling weight of firms in the region were adjusted in line with national weightings in terms of value added. In order to focus on large-scale companies, firms with turnover less than ten million dollars were excluded. The sampling weights of the industries most affected, for example, retailing, were thus adjusted further. After all of the adjustments were made it is shown that the sample accounted for about 7.6 % of GDP. The area was also chosen for its proximity to Princeton. This made the considerable task of data collection easier.

The questionnaire, which formed the basis of the interviews, comprised two sections. Part A obtained factual information about the company and its pricing behaviour. For example, information was collected on the company's size, the period over which

companies persisted with their prices and the contractual basis of pricing. Part B involved twelve sets of questions. Each set was aimed at eliciting the executive's opinion on aspects of a particular theory of price stickiness. The next section outlines the main findings of the research.

3. The Main Findings of the Research

Part A: The Factual Basis of Pricing

The main findings of this part of the study are that nearly 80% of firms change their prices less than 4 times per annum. The main reasons that executives gave for this included; price changes would antagonise customers (21%), competitive pressure (14%), that there were costs associated with changes in prices (14%) and that costs did not change more often (14%). As far as the nature of price adjustments is concerned, 60 % of the firms had periodic as opposed to state dependent rules. Approximately 45 % of these companies reviewed their prices annually while, 17 %, 13 % and 14 % of these firms reviewed their prices every six months, every two to three months and between a week and a month respectively. In the case of price adjustment, 74 % of firms adjusted their prices all at once. In addition 61.8 % of prices were not underwritten by formal contracts, though approximately two-thirds of the sample felt that they had implicit understandings with their customers not to raise prices. Finally, moving away from pricing reviews, the respondents stated that it took approximately 3 months for prices to change in response to cost and demand changes.

Some particularly interesting findings pertain to the nature of product demand and cost behaviour. In the former case it was found that 85 % of sales represented repeat

business.[1] It was clear that the vast majority of firms did not explicitly account for inflation forecasts in their pricing. Finally, the sample responses indicated that approximately 84% of respondents implied that their price elasticity of demands were less that, or equal to, one. Blinder also finds that 'fixed costs appear to be more important in the real world than in economic theory' (p101). One possible qualification to this is that respondents appeared to have difficulty in conceptualising marginal and average cost differences. Moreover it was clear that respondents did not find the fixed *versus* variable cost differences of economic theory easy to comprehend (pp100-101). Having said this, over 88% of respondents indicated that 'marginal' costs either declined or stayed constant with changes in output (sometimes involving discrete jumps).This behaviour of costs, which lies in contrast to the usual neoclassical assumption is well documented elsewhere in Lee (1986, 1994). The long pedigree of such findings can be illustrated by noting, for example, that in 1952 Eiteman and Guthrie published the results of a large-scale survey similar to Blinders. The results of this survey are consistent with Blinder's work. More recently, Reid (1987) and Reid *et al* (1993) specifically note that in the small firms surveyed marginal costs either declined or stayed constant.

Interestingly, therefore, while Blinder argues that his work fills an 'empirical vacuum' (p83) about the patterns of price behaviour. This is not the case. Blinder simply reconfirms the findings of a wealth of literature on costing and pricing. Lee (1986, 1994, 1998) and Downward (1994, forthcoming b) survey over 120 studies relating to

[1] As discussed further below contrary to the surprise felt by the authors, and 'other economists in seminar presentations of these results' (p96), this result is to be expected given the desire of firms not to antagonise customers.

pricing and costs. In addition the argument that 78% of Blinder's sample re-priced their products quarterly or less is consistent with the facts for the UK based on CSO data and the US cited in Lee (1994). Both Lee (1994) and Downward (forthcoming b) also produce very similar arguments as to why firms do not change their prices - an issue discussed further below.

As far as the adjustment of prices to demand and cost shocks is concerned, Blinder suggests that the response time is on average 3 months. This is consistent with, for example, both recent econometric and survey work on pricing for the UK. In the former case a VAR analysis was best specified with a one quarter lag length and, in a survey of UK manufacturing firms the average time taken for firms to respond to demand and cost shocks was 3.3 months and 3.7 months respectively. The standard deviations were 3.7 and 3.9 respectively (see Downward 1995, forthcoming b).[2]

Interestingly Blinder finds that firm size is positively correlated with the number of price changes. This is a finding echoed in other surveys, for example, Downward (forthcoming b). Shipley (1981), moreover, suggests that pricing objectives varied much more systematically with firm size than market conditions. This seems to suggest

[2] Interestingly Martin (1996), another econometric study of pricing in the UK, shares the finding in Downward (1995) that cost shocks had three times the impact on prices than demand shocks. In general cost shocks seem to have more impact on prices than demand shocks. For a variety of insights and contexts see, for example, Sawyer, 1983; Geroski, 1992; Madsen, 1996/7. Such a persistent finding in econometric work relative to the symmetrical impacts of costs and demand changes on prices in questionnaire work leads one to accept that proxies for demand are much more difficult to find than proxies for costs in econometric work. A survey of the econometric literature and a discussion of such issues can be found in Sawyer, 1983, and Downward, forthcoming b. In any case this seems to be an issue worthy of further investigation.

that pricing decisions may be more pragmatic/flexible in larger firms than smaller firms. This is a finding supported in Lee's (1994) survey of the literature.[3]

In short we argue that not only are Blinder's findings are widely supported elsewhere. Crucially, as shown below we argue that the findings have a strong resonance with post Keynesian work. Interestingly this applies to the 'open-ended' data descriptions obtained by the author's as well as the information obtained on 'tests' of mainstream theories.

[3] This is distinct from exploring relationships between relative size, for example, market share and concentration, and price adjustment. As Domberger and Smith (1982) argue, this econometric literature on pricing behaviour is 'bedevilled with ambiguities and contradictions' (p200). A point, of course, shared by Blinder. A more comprehensive survey of the results of older studies can be found in Sawyer (1983). In the case of more recent studies, Dixon (1983) finds no relationship between concentration and price adjustment, Geroski (1992) finds that concentrated industries tend to react to price and cost shocks more slugishly. Based on Means' original data on administered prices, Lee and Downward (1998) find no evidence connecting concentration with the magnitude or frequency of price adjustment.

Part B The Main Theories

The twelve theories of price change that were the main focus of the research along with associated brief description are presented in Table 1 (Blinder 1998, p108).

Table 1 The Twelve theories

Theory Name	Brief Description
Nominal Contracts	Prices are fixed by Contract
Implicit Contracts	Firms tacitly agree to stabilise prices, perhaps out of 'fairness' to customers
Judging Quality by Price	Firms fear that customers will mistake price cuts for reductions in quality
Pricing Points	Certain prices (like $9.99) have special psychological significance
Procyclical Elasticity	Demand curves become less elastic as they shift in
Cost-based pricing	Price rises are delayed until costs rise, and these delays cumulate through a multi-stage production process
Constant MC	MC is flat and mark-ups are constant
Costly price adjustment	Firms incur costs of changing prices
Hierarchy	Hierarchical delays slow down decisions
Coordination failure	Firms hold back on price changes, waiting for other firms to go first
Inventories	Firms vary inventory stocks instead of prices
Nonprice Competition	Firms vary nonprice elements such as delivery lags, service or quality

Information on each of the theories was gathered by presenting the respondents with a concise description of it and then asking them if it was relevant to them on a scale of one to four. The former indicated total unimportance of the theory. Four indicated very important. If an answer indicated some relevance of the theory secondary questions were asked.

For example, the authors identified Coordination failure, Cost-based pricing, nonprice competition and implicit contracts as the only theories strongly supported in their survey. The theories were ranked according to the mean scores they received from their respondents.[4] Information on each of these theories was gathered by asking respondents how much they agreed with reference to the following questions:

(i) Coordination failure

'The next idea is that firms would often like to raise their prices, but are afraid to get out of line with what they expect competitors to charge. They do not want to be the first ones to raise prices. But, when competing goods rise in price, firms raise their own prices promptly.' (Blinder, 1998, p332)

(ii) Cost-based Pricing

'A different idea holds that prices depend mainly on the costs of labor and of materials and supplies that companies buy from other companies. Firms are thought to delay price increases until their costs rise, which may take a while. But then they raise selling prices promptly' (Blinder, 1998, p327)

[4] Somewhat cryptically the authors add the rider that 'three-rank differences are significant at the 5 percent level. Thus the rankings..., while not as sharp as we might like, are certainly not meaningless' (p109). The statistical signficance of the survey work is less robust than hoped for.

(iii) Nonprice Competition

'According to the last idea we want to investigate, firms don't cut prices much when demand falls because price is just one of several elements that matter to buyers. More frequently, they shorten delivery lags, make greater selling efforts, improve service, or improve product quality' (Blinder, 1998, p334)

(iv) Implicit Contracts

'Another idea has been suggested for cases in which price increases are not prohibited by explicit contracts. the idea is that firms have implicit understandings with their customers - who expect the firms not to take advantage of the situation by raising prices when the market is tight' (Blinder, 1998, p322)

In the specific chapters introducing these theories in detail Blinder argues that coordination failure is based on an old idea that has its origins in the work of Clower (1965) and Leijonhufvud (1968). This work suggests that there may be multiple equilibria associated with different levels of effective product and labor demand. The idea was recently revived by Cooper and John (1988) who located the multiple equilibria in the 'strategic complementarity' of one agents desired action depending on another agent's actions. Ball and Romer (1991) applied this notion to the pricing decisions of firms under imperfect competition. The authors do also make some implicit reference to this being a related idea to the kinked demand curve (p32).

Cost-based pricing is essentially associated with lags in production and input-output effects on aggregate prices (see Gordon, 1981; Blanchard 1983). Nonprice Competition is associated with market clearing along other dimensions than price for

example delivery lags as emphasised by Maccini (1973) or Carlton (1984). Interestingly the authors argue that 'there does not appear to be much empirical work on this question' (p284). As noted above this is not the case. Implicit contract theory is essentially associated with Okun (1981) as far as pricing is concerned. The thesis suggests that firms seek to increase customer loyalty and goodwill by stabilising prices. It is fair to increase prices if costs increase.

4. A Critical Assessment of Blinder: Some Methodological Issues Associated with Questionnaire Research

Having presented the main findings of Blinder's research, and in order to begin a critical assessment of them, a discussion of some of the main methodological issues associated with questionnaire research is essential. It is clear that the previous discussion on the author's research design indicates that Blinder was essentially concerned with pragmatic and statistical issues than methodological issues. In particular, he argued that while the questionnaire method raises concerns, it has merit relative to the imprecise findings of econometrics. In keeping with his desire to 'test' alternative theories, Blinder goes to great length in chapter 3 to describe the sampling procedure adopted by the project. The object is to produce a study that can be replicated in 'true' scientific form. Blinder's largely implicit methodology is thus the positivist methodology that dominates mainstream economic discourse.

Indeed, Blinder's (misquoted) reference to George Stigler, that 'data is the plural of anecdote' (p45) is particularly informative in this respect.[5] It suggests that relevant

[5] We are grateful to Ian Jackson for pointing out the misquote.

insights in economics have to be produced through reference to reliable and objective statistics on which to base tests.[6] One problem with this 'rhetoric' is that, in fact it is coupled with inconsistency in practice. Stigler himself was not free of this. In his 1944 AEA presidential address, for example, Stigler refers to the vast potential associated with quantification and testing in economics. On the other hand Stigler (1951) makes the claim that 'received theory deserves more respect and quantitative materials less respect than are commonly accorded them' (pp127-128). A similar shifting of argument is evident in Blinder's work. While there is a rhetoric of testing, in practice much of the weight of Blinder's argument relies on descriptive statistics discussing rank order comparisons between a number of acceptable theories. There is some evidence that groups of the theories have significant differences in rank order (p109). However, the questionnaire work does not produce the demarcation that Blinder craves. This is despite the statisticians turn of phrase invoked, for example, that 'statisticians can never "accept" a null hypothesis; they can only reject or fail to reject one...it always seemed likely that the strongest results our popularity poll among the twelve theories would be negative ones' (p303).

Now explaining why arguments shift in economics is the subject of much debate. For example, McCloskey (1983, 1986, 1991) has been a persistent commentator that mainstream economists have rarely engaged in their official 'positivist' methodology. From this perspective she argues that economics is about persuasion. Persuasion need not rely on keeping to the rules of formal statistical argument or indeed actual appeal to empirical work. The economics literature, as well as Blinder, is thus, for example,

[6] Stigler, of course, was not a friend of the type of post Keynesian theorising referred to later in this

characterised by dissatisfaction with the state of applied econometrics generally. This is because of claims of data mining [see, for example, Darnell and Evans (1992), Charemza and Deadman (1992)].

One can argue, therefore, that there is an increasing belief that, or at least tacit acceptance of, there is more to inference in economics than appeal to objective economic data (usually expressed in econometric form). This appears to be precisely the concern that Blinder shares. Of course, sharing this belief does not imply that economists share the remedies to the problems associated with it. As Pagan (1987) argues, applied econometricians may appeal to either of three competing econometric strategies that are not necessarily compatible. Post Keynesian economists appeal to the philosophical doctrine of realism as a means of explaining the problems associated with applied econometrics (see, for example, Lawson 1985, 1995, 1997; Downward, 1998). An alternative strategy thus might be to abandon econometric work altogether. This is an approach that could be based in Lawson's (1995) arguments. It would be shared by McCloskey and now appears to be shared by Blinder. The differences between Blinder and McCloskey and Lawson, is that the latter reject econometrics as manifestations of positivism. Blinder rejects the econometric *form* of positivism. As such while the former approaches can conceptualise the difficulties of theory demarcation, Blinder cannot and, indeed, does not.

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paper. See Freedman (1998).

All of this suggests that while Blinder seeks the approval of specific theorists, as a check on the validity of his representation of their theories, as well as seeks statistical conformity in the recording of responses by interviewers, these procedures do not really address the fundamental methodological issues at stake. For example, when one examines which particular facet of the theories is being examined, in essence the descriptive relevance of particular assumptions associated with deductive models of price stickiness are assessed. This raises questions, however, about the descriptive relevance of major behavioural assumptions underlying such behaviour also. Blinder's comments on this matter are confined to the statement that,

> "Virtually every theory of price stickiness outlines a thought process that allegedly leads decision makers (generally modelled as profit maximisers) to conclude that it is against their best interest to change the price. But if people actually think that way one of these theories says, then they should be aware that they do - or so it seemed. Hence an idea: Why not ask them?" (Blinder *et al*, 1998, p7).

Thus Blinder does not directly address the issue of the optimising behaviour in his questionnaire. On the contrary all efforts are directed at investigating the implications of particular theories. All of this treats the methodological problems associated with the tension between the subject and object of analysis, and the tension between deductive theorising and historical evolution in a much too cavalier fashion. Blinder effectively has to maintain that, on the one hand the descriptive relevance of optimising behaviour does not matter but, on the other hand, that the descriptive relevance of other aspects of behaviour, for example, the presence of implicit contracts does matter.[7] Likewise, Blinder has to argue that translating deductive theory into practical content is unproblematic. In his respect Blinder appears to adopt Machlup's (1946)

[7] This is not surprising in that Blinder effectively works within the mainstream paradigm but only really shows concern for the econometric form of it.

argument that marginalism simply captures the decision makers subjective hunch and opinion. If this is the case, however, some discussion of the problems associated with these arguments are necessary. This is particularly because, as Downward (1994) argues, much of the early questionnaire research on pricing was precisely concerned with such issues.

These are important issues as they suggest that theory demarcation is difficult in social science. They suggest that questionnaire-studies cannot do the job Blinder requires of them. The remainder of this section offers further discussion, in general terms, of the reasons why this is the case.

The first point to note is that comparing econometric and questionnaire studies is a misleading research dichotomy. Questionnaire's are simply instruments for collecting data. Much applied econometric work turns on the analysis of survey data. As such the conventional distinction between quantitative and qualitative research is not very meaningful. It seems much more sensible to think about research methods in terms of posing the prior question, 'what are we looking for in seeking to generate data?' Posing such a question immediately raises crucial methodological questions. It requires a consideration of both ontology, which addresses the object of theorising, as well as epistemology, which addresses how reliable knowledge about the objects of study may be formulated. Notably, Blinder discusses the latter (c.f. p11).

In order to offer some clarification of these matters the following discussion draws on the realist and interpretavist literatures. Lawson (1997) argues that mainstream economics has an implicit closed-system ontology. Its economic world can be

characterised by event regularities. The neoclassical epistemology thus comprises the search for covering laws - expressed as deductions - that captures these regularities. These can then be tested with reference to measurable probability distributions. As a stylisation this type of economic research comprises sets of deduced predictions of outcomes of rational behaviour that are compared to 'quantitative' patterns in the data. It follows that there is the presumption that the subject of the analysis - a covering law - and the object of analysis - the economic system - become conflated. For the realist such an approach is untenable. The world is, in general, an open-system demonstrated by the fact that experiments are needed to produce closure. This is of importance in that while never expressing themselves as closed-systems it is clear that the pricing theories in Blinder are manifestations of this. They are deductive entities in which an argument is presented that captures *the* salient reason why prices are sticky for rational agents. Given that Blinder wants to assess a *variety* of these forms, and yet eschew the econometric method, this suggests that it is not surprising that the precise nature of the theory's assessment is not spelled other than with references to statistical inference. There is a fundamental methodological inconsistency involved in the project.

In arguing that the economic system is open, realists suggest that the objects of study can be transformed. As such there are no covering laws to be found in economic systems. The objects, processes or actors in social systems may always change or be subject to qualitative variation. In this respect realists eschew the search for event regularities and argue that knowledge is always liable to be partial and potentially misleading. The theorist should seek to explore the multiplicity of causal mechanisms that may underlie economic phenomena though recognise that all understanding is

partial. In this respect realists would argue that deductive forms of theory will have no relevance to understanding real phenomena.

In addition the interpretavist literature argues that in order to explain what thinking human actors are doing it is necessary to understand or reconstruct the social experiences of them. This is what Weber (1949) refers to as *Verstehen*. From this perspective knowledge is socially constructed. As such, data will be context dependent and, in the absence of careful justification as to why the objects of study are liable to be qualitatively invariant, may produce highly spurious insights if combined mechanically for example in statistical testing (see, for example, Cicourel 1964). As a stylisation this sort of research involves qualitatively analysing observations to derive theoretical statements with a view to establishing meaning and purpose (Fryer, 1991). All of this suggests that Blinder's attempt at 'testing' the neoclassical theories is misplaced. In turn his failure to see this also implies that he is unable to recognise that the data he has collected might support a different body of theory - Post Keynesian Pricing Theory. One central reason for this is that post Keynesian pricing theory has a much more inductive origin than neoclassical theory. In this respect it has a realist/interpretavist underpinning. This will be discussed in the next section.

5. An Assessment of The Winners:

Theories That Practitioners Believe Reconfirms Post Keynesian Pricing Theory

In this section it is argued that the data that Blinder collected is, in fact, consistent with an explanation of price stability offered in post Keynesian pricing theory. A useful

starting point to this discussion are some of the anomalies identified by Blinder in his results.

The first point in this regard is that Blinder argued that his respondents took no account of inflation in their pricing decisions. This is problematic for neoclassical accounts of pricing that are predicated on the notion of rational decision makers being aware of relative price differentials. This is a particularly problematic result for Blinder because the theories assessed in part B of the questionnaire are predicated on the assumption of profit maximisation (Blinder *et al* p7).

On a related point Blinder also noted that his respondents faced inelastic demand schedules. Elementary microeconomic theory, involving linear demand functions, suggests that profit maximising prices must be set in the elastic portion of the demand curve. In the absence of qualification this must raise doubt about the value of Blinder's discussion of the theories. As noted above there is a general lacuna in Blinder's work in not addressing the objectives of the enterprises he surveys. He argues that this was '... a topic we basically ignored...' (p40). This gap in Blinder's work casts considerable doubt on his conclusions.

Similar problems for the neoclassical approaches to price determination are evident in the author's discussion of cost behaviour. Blinder *et al* find that 'fixed costs appear to be more important in the real world than in economic theory' (p101). One possible qualification to this is that respondents appeared to have difficulty in conceptualising marginal and average cost differences. Moreover it was clear that respondents did not find the fixed *versus* variable cost differences of economic theory easy to comprehend

(pp100-101). Having said this, none of this provides comfort for neoclassicals who presuppose rising marginal costs. Over 88% of respondents indicated that 'marginal' costs either declined or stayed constant with changes in output (sometimes involving discrete jumps). This undermines the assumption of rising marginal costs and associated diminishing factor productivities of mainstream theory.

Indeed, as far as the 'theories that practitioners believe in' are concerned, the information gathered by Blinder formulation is not inconsistent with Hall and Hitch's (1939) seminal investigation into pricing. This is despite Blinder noting in his thin review of antecedents to his research, that Hall and Hitch's work lacked statistical credibility (p39).

As Hall and Hitch argue,

> "The most striking feature ...was the number of firms which apparently do not aim, in their pricing policy, at what appeared to us to be the maximisation of profits...this can be explained ... to some extent by ... their policy -' taking goodwill into account'...that in pricing they try to apply a rule of thumb which we shall call full-cost,....that a price based on full average cost was the 'right' price, the one which 'ought' to be charged...some traditional or convenient price, which had been proved acceptable to consumers" (Hall and Hitch, 1939, pp18-19).

With the exception of nonprice adjustments, coupled with their seminal discussion of the kinked demand curve which Blinder argues shares the characteristics of the coordination failure approach (p32), this paragraph is consistent with the articulation of the main theories identified by Blinder and noted earlier. Of related importance is the prevalence with which the unprompted comments of the respondents recorded their desire not to 'antagonise' customers and that they needed to conform to 'competitive pressures' (p85). It was also clear that respondents suffered 'money

illusion'(p300). Significantly, in these respective cases Blinder argues that '[t]his imprecise thought does not fit neatly into any economist' standard theoretical boxes' (p313), that 'much the same could be said of the catch-all "competitive pressures"'(p85) and that this is an 'answer - but one that economists shun' (p132).

Significantly Blinder seems to reluctantly accept that these responses both question the economic theories and in particular the ubiquitous maintained assumption that the behaviour of executives should conform to the traditional notion of rationality in economics. Crucially he concludes his research by suggesting that finding out more about such matters is of paramount importance. He argues that,

> "For now we have made a landing on a heretofore unexplored planet - finding some things familiar and intelligible, and others puzzling and strange...We invite others to come along" (Blinder *et al* 1998, p314).

Downward (forthcoming a) and Lee (1998) argue that many have already in fact visited the planet to which Blinder alludes. They argue that along with Hall and Hitch, P.W.S. Andrews, G.C. Means and M Kalecki provide the pricing foundations of post Keynesian economics. Crucially their work comprises more inductively based theories that explore the actual determinants, or causal processes, of pricing. These do not constitute (effectively) full-information equilibrium or optimising accounts of pricing and as such lack a determinate and deductive emphasis. For this reason they are consistent with a post Keynesian commitment to an open-system ontology. These theories share the common perspective that prices are set, in advance of trade and in the uncertain pursuit of some objective, though typically long-run profits are of consequence, by following a procedure of adding a mark up to average direct costs in an organisational context to cover both overheads and profit. Prices are also set with

some uncertain attention being paid to pressure from competing groups of products, that is pressure from the environment which can, but need not automatically, cause them to change. In particular, prices are more likely to change from cost changes than demand changes.[8] In other words prices are set by following standard rules and procedures - indicated by cost-plus pricing mechanisms or broader decision making constraints - but these prices can be adjusted as a new environment historically emerges for the firm. Nonetheless, boundedly rational agents set prices to deliberately promote stability in pursuit of their long term objectives in an environment in which it is accepted that competing groups of products will share the same price structure. In this respect the pricing conventions and rules adopted make no assumption about the likely values or even usefulness of notions such as the price elasticity of demand in understanding pricing behaviour. In turn these pricing conventions allow prices to respond to cost changes more easily than demand changes. Moreover, post Keynesian pricing theory accepts that average total costs will decline and that both fixed and variable costs will affect pricing decisions. As calculations of average fixed costs, for example, to determine overhead recovery rates, will involve planning over pricing periods then individual transactions may not affect prices other than in a pre-planned way through, for example, discounts.

Finally, it is worth noting that in offering some generalised empirical description of the pricing process, the theories of Kalecki, Hall and Hitch, Andrews and Means are based in the actual operations of the firm. As such they share the objective of plausibly

[8] This means that Hall and Hitch's (1939) work is not associated with simply adding a fixed and unchanging mark up to average costs as implied in Blinder *et al* (1998) and indeed many other studies. This is a naiive interpretation.

attempting to represent the real world through their assumptions and claims. They are abstractions of the processes involved in price setting but not idealisations of them. Such post Keynesian work also has much empirical support and documents the importance of non-price adjustments to shocks as well. (Downward 1994, forthcoming b; Shipley, 1983; Lee, 1986, 1994).

Significantly, Okun identifies some commonality of his work with Hall and Hitch, Means, and Kalecki too (see, for example, Okun, 1981, ch 4) as well as stresses the long-run nature of pricing decisions. Blinder remains anonymous on this point. Nonetheless, a shared concern of both Blinder *et al* and Okun is that,

> "It is much easier to document empirically the widespread nature of cost-oriented pricing practices and their acceptance as inherently fair than it is to provide an analytical foundation for those practices and attitudes" (Okun, 1981, p154).

Post Keynesians would thus argue that providing a consistent understanding of Blinder's results requires a further rejection of mainstream economic methodology and concepts than Blinder has already made and that Okun appeared to want.

It can be shown, thus, that Blinder's results are not in fact new and have been historically interpreted as consistent with post Keynesian pricing theory. Blinder's approach thus fails to demarcate between the twelve neoclassical theories to which he directly concerns himself but also post Keynesian pricing theory.

Of course, one may take the position that Blinder did not explicitly address post Keynesian ideas or that none of this discussion suggests that Blinder's research necessarily validates post Keynesian pricing theory anymore than the listed theories.

This is, of course, correct in one sense. The theories reviewed by Blinder are essentially deductive entities constructed from a closed-system perspective. It is simply not surprising then, that a number of them each of them has *degrees of evidence* associated with them. However, in recognising this it is clear that 'testing' the theories in a positivist sense has not, and cannot, take place. In the historical and open-system context of actual pricing decisions, decision-makers have the potential to adjust their thinking and reference to implicit or explicit models at any time. In this respect we would argue that a key methodological point is the consistency of subsequent inferences that are offered. An open-system approach requires that theorising proceed with a more inductive approach as, for example, pursued by Hall and Hitch. In this case empirical stylisations are produced and tentatively held. We would argue that post Keynesian theory is credible in this regard. The twelve theories investigated by Blinder are not. It is worth noting that we are encouraged by the fact that Blinder appears to accept that such an approach to research is required in the future. Chapter 18 of the book thus offers a summary 'model' of his findings.

Conclusion

This paper argues that Blinder undertakes a questionnaire study to investigate the reasons why prices are sticky. In order to do this he assesses the relevance of various neoclassical theories to the thinking of business executives. We argue that in spite of his intentions Blinder's interpretation of his results is methodologically flawed and that the inductive findings of the research support post Keynesian pricing theory. Having

said this, the purpose of this paper is not to be one of those economists who "...sneer at 'anecdotal evidence'" (p55). We know only to well that,

> "...anyone who does this type of research in economics is swimming upstream in a profession which looks upon learning by asking as an activity suitable for the lower classes" (Blinder *et al*, 1998, p55).

Our purposes is to offer a constructive critical welcome to Blinder's efforts as part of a wider community of economists than dominate mainstream discourse. We argue that many of his findings are both important and buttressed by a wider literature than he cites. In this respect Blinder's 'heretofore unexplored planet' (p314) is in fact akin to the world Charlton Heston encountered while riding his horse along the edge of the surf in Planet of the Apes. Just as Heston found the hand of the statue of liberty sticking out through the sand, so Blinder finds Hall and Hitch's hands, as a manifestation of post Keynesian pricing theory, sticking up out of the sand. The only difference is that Charlton Heston recognised the Statue of Liberty.

Bibliography

Ball, L and Romer, D., 1991, Sticky Prices as Coordination failure, American Economic Review, 81, pp5389.552.

Blanchard, O.J., 1983, Price Asynchronisation and Price Level Inertia, in Inflation, Debt and Indexation, edited by Dornbusch, R. and Simonsen, M., M.I.T. Press.

Blanchard, O.J., 1994, Comment on Sticky Prices: Academic Theories meet the Real World, in Mankiw (ed).

Blinder, A.S., 1991, Why are Prices Sticky?: Preliminary Results from an Interview Study, American Economic Review, Papers and Proceedings, May, pp89-96.

Blinder, A.S., 1994, On Sticky Prices: Academic Theories meet the Real World, in Mankiw, N.G. (ed).

Blinder, A.S. et al, 1998, Asking about Prices: A New Approach to Understanding Price Stickiness, Russell Sage foundation:New York.

Carlton, D.W., 1984, The Importance of Delivery lags as a Determinant of Demand, Mimeo, University of Chicago Graduate School of Business.

Charemza, W.W. and Deadman, D.F., 1992, New Directions in Econometric Practice, Edward Elgar:Aldershot.

Cicourel, A., 1964, Method and Measurement in Sociology, Free Press:Chicago.

Clower, R.W., 1965, The Keynesian Counter revolution: A Theoretical Appraisal, in The Theory of Interest rates, edited by Hahn, F.H. and Brechling, F, Macmillan:London

Cooper, R. and John, A., 1988, Coordinating Coordination Failures in Keynesian Models, Quarterly Journal of Economics, 103, pp441-463.

Darnell, A.C. and Evans, J.L., 1990, The Limits of Econometrics, Edward Elgar:Aldershot.

Dixon, R., 1983, Industry Structure and the Speed of Price adjustment, The Journal of Industrial Economics, Vol XXXII, No 1, pp25-37.
Domberger, S.and Smith, G.W., 1982, Pricing Behaviour - a Survey, in Artis *et al* (eds), Demand Management, Supply Constraints and Inflation, Manchester University Press.

Dow, S.C. and Hillard, J. (eds), 1998, Post Keynesian Econometrics and the Theory of the Firm, Edward Elgar.

Downward, P.M., 1994, A Reappraisal of Case Study Evidence on Business Pricing:Neoclassical and Post Keynesian Perspectives, British Review of Economic Issues, Vol 16, No 39, pp23-43.

Downward, P.M., 1998, Realism, Econometrics and Post Keynesian Economics, in Dow and Hillard (eds).

Downward, P.M., forthcoming a, A Realist Appraisal of Post Keynesian Pricing Theory, Cambridge Journal of Economics

Downward, P.M., forthcoming b, Post Keynesian Pricing Theory: A Realist Approach, Edward Elgar:Aldershot

Eiteman, W.J. and Guthrie, G.E., 1952, The Shape of the Average Cost Curve, American Economic Review, 42, pp832-838.

Fog, B., 1960, Industrial Pricing Policies: An Analysis of the Pricing Policies of Danish Manufacturers, North Holland:Amsterdam.

Freedman, C., 1998, No end to Means, Journal of Post Keynesian Economics, Vol 20, No 4, pp621-648

Fryer, D., 1991, Qualitative methods in Occupational Psychology: reflections on why they are so useful but so little used, The Occupational Psychologist, 14, pp3-6.

Geroski, P.A., 1991, Price Dynamics in U.K. Manufacturing: A Microeconomic View, Economica, Vol 59, pp403-419.

Gordon, R., 1981, Output Fluctuations and Gradual Price Adjustment, Journal of Economic Literature, 19, pp493-530.

Hall, R.L. and Hitch, C.J., 1939, Price Theory and Business Behaviour, Oxford Economic Papers, pp12-45.

Kalecki, M., 1954. Theory of Economic Dynamics, Allen and Unwin:London.

Kaplan, A.D.H, Dirlam, J.B. and Lanzillotti, R.F, 1958, Pricing in Big Business: A Case Approach, The Brookings Institute:Washington D.C.

Lawson, T.,1985, Keynes, Prediction and Econometrics, in Lawson, T and Pesaran, H. (eds).

Lawson, T.,1994, The Nature of Post Keynesianism and its links to other traditions, Journal of Post Keynesian Economics, Vol 16, No 4, Summer, pp503-538.

Lawson, T.,1995, The 'Lucas Critique': A Generalisation, Cambridge Journal of Economics, Vol 19, No 2, pp257-276.

Lawson, T.,1997, Economics and Reality, Routledge:London.

Lawson, T. and Pesaran, H. (eds) 1985, Keynes' Economics:Methodological Issues, Croom Helm:London.

Lee, F.S., 1986, Post Keynesian View of Average Direct Costs: A Critical Evaluation of the Theory and Empirical Evidence, Journal of Post Keynesian Economics, Vol 8, pp400-424.

Lee, F.S. 1994, From post Keynesian to Historical Price Theory, part 1: Facts, Theory and Empirically Grounded Pricing Model, Review of Political Economy, Vol 6, No 3, pp303-336.

Lee, F.S. 1998, The Foundations of Post Keynesian Price Theory, Cambridge University Press:Cambridge.

Lee, F.S., and Downward, P.M.,1998, Realism, Econometrics and Retesting Gardiner Means' Theory of Administered Prices' Paper presented at the Royal Economic Society Conference, University of Warwick, March.

Leijonhufvud, A., 1968, On Keynesian Economics and the Economics of Keynes, Oxford Univerity Press.

McCloskey, D.N., 1983, The Rhetoric of Economics, Journal of Economic Literature, Vol 21, pp481-517.

McCloskey, D.N., 1986, The Rhetoric of Economics, Wheatsheaf Books:Brighton.

McCloskey, D.N., 1991, Rhetoric and Persuasion in Economics, Cambridge University Press.

Maccini, L.J., 1973, On Optimal Delivery lags, Journal of Economic Theory, 5, pp107-125.

Martin, C., 1996, Price formation in an open-economy: Theory and evidence for the United Kingdom, 1951-1991, Economic Journal, 107, pp1391-1404.

Madsen, J.B., 1996/7, Pricing-to-Market and the efficiency of Macroeconomic Policies, Journal of Post Keynesian Economics, Vol 19, No 2, pp225-242.

Mankiw, N.G. (ed), 1994, Monetary Policy, University of Chicago Press:Chicago.

Okun, A. 1981, Prices and Quantities: A Macroeconomic Analysis, Blackwell:Oxford.

Pagan, A., 1987, Three Econometric Methodologies: A critical appraisal, Journal of Economic Surveys, Vol 1,

Reid, G. C., 1987, Applying Field Research to the Business Enterprise, International Journal of Social Economics, 14, pp3-25.

Reid, G.C. Jacobson, L.R. and Anderson, M.E., 1983, Profiles in Small Business: A Competitive Strategy Approach, Routledge:London.

Sawyer, M.C.,1983, Business Pricing and Inflation, Macmillan:London.

Shipley, D.D., 1983, Determinants of Adjustment in Price and Non-price Marketing Intensities, Mid-South Business Journal, Vol 3, pp3-9.

Stigler, G., 1951, Economic Theory, Statistics and Economic Practice, American Economic Review, Papers and Proceedings, Vol 41, No 2, pp126-128.

Weber, M., 1949, The Methodology of the Social Sciences, Free Press:New York.

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