Intermediate Macro Texts and the Economic Crisis of 2008-09

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Abstract

The authors use quantitative and qualitative analyses to examine how well 12 leading intermediate macroeconomic textbooks would have prepared students for understanding the economic crisis and stabilisation policies implemented in 2008-09. Evaluations distinguish between topical coverage of relevant concepts and theoretical underpinnings of interventionist policy.

The authors find heavy emphasis on content associated with macro stability but significantly less content that would have been useful in comprehending informed public warnings about instability and the interventionist policies that were actually implemented. Examples from the texts are offered to support their analyses. While not objecting to thorough treatment of arguments related to macro stability, the authors suggest students would be better served by texts that integrate more serious coverage of crises, potential causes, and policy responses.

JEL classification: A22, E00 and A10

1. Introduction

How well would popular intermediate macro texts have prepared students for comprehending the economic crisis of 2008-09 and the remarkable policy responses by the Federal Reserve, Treasury, and Congress? To address this question, we reviewed 12 widely used texts to assess the emphasis given to concepts, theories, and historical events that would have been helpful in this regard.

The general structure of our review emerges from agreement with Froyen that “recent developments [in intermediate level macroeconomics] remain within the two traditions of business cycle theory research: classical and Keynesian. The classical, or self-adjusting, school believes that markets generally work well when left free of government intervention, and where they do not, government is not likely to help” (1996, p. 113). The Keynesian school follows from the first page of *The General Theory* in which Keynes asserts that full employment is simply “a limiting point of the possible positions of equilibrium” (1936, p.3). In this view, crises and underemployment of resources are possible and potentially reinforcing so government intervention is appropriate, at least in some cases. Our review draws upon these characterisations to evaluate textbook content relating to these two traditions with regard to the possibility of crises and the appropriateness of government policy responses. We will refer to the school that views rational, individual maximising responses to shocks as stabilising and government intervention as ineffectual at best as the “non-interventionist” tradition. The tradition that allows for the possibility of vicious cycles and reinforcing effects that sometimes require stabilisation policy will be referred to as the “interventionist” view.

Our analysis rests on several fundamental premises. First, the 2008-09 crisis is the latest, but probably not the last, in a long history of crises in capitalist economies.[1] Second, competition between interventionist and non-interventionist traditions is longstanding, ongoing, and unlikely to be ultimately resolved. Arguments about the fundamental cause of crises will also remain unresolved, in part because it will always be possible to argue government policy is the cause rather than the cure.[2] Third, governments have frequently adopted interventionist policy prescriptions in economic downturns and crises. No textbook author, regardless of their view of macroeconomics, could have been surprised by calls for discretionary monetary and fiscal policies such as those implemented in response to the most recent crisis. Fourth, intermediate macro texts should prepare students to understand premises one through three by offering serious coverage of the underlying assumptions and theoretical structures of *both* interventionist and non-interventionist views.

It is important to stress that we are not interested in joining debates about the correctness of interventionist or non-interventionist views. We simply believe a strong intermediate text should prepare students to understand and critically evaluate the sort of macroeconomic events and policies seen recently, especially economic analyses and commentary intended for the general public. Evidence from quantitative and qualitative reviews leads us to conclude that while most intermediate texts thoroughly present non-interventionist theories, they should do more to prepare students for comprehending arguments about the possibility of crises and interventionist policy responses.

We begin with a section outlining a sample of economic analyses intended for the general public. We hope this short section conjures broader images of the events, public commentary, and policy responses that students were likely to confront. We then turn to a description of methods used to select texts and to conduct both quantitative and qualitative analyses. Qualitative findings are reported both in terms of the coverage accorded to simple analytical concepts and to more significant development of underlying theory. We conclude with a discussion of the apparent trajectory of textbook development.

2. A Case for Macroeconomic Literacy

Examples of informed commentary and policy responses that an intermediate text should have prepared students to understand and evaluate are ubiquitous. We focus on the period of September 2008 through the summer of 2009, drawing upon examples from the 2008 Nobel laureate in economics, members of the Federal Open Market Committee (FOMC), the business press, and headline-grabbing policies.

Paul Krugman repeatedly made arguments that one might expect intermediate students to easily recognise and assess. As early as September 2008, Krugman used his op-ed to remind readers about the vicious cycle of debt deflation and the severe recessions that can result from dramatic changes in liquidity preferences (2008). He also warned that the “current U.S. financial crisis bears a strong resemblance to the crisis that hit Japan at the end of the 1980s and led to a decade-long slump…”. By the following May, Krugman’s op-ed column argued that wage and price deflation, rational for each individual, may worsen rather than ameliorate the slump, especially if businesses and consumers expect deflation to continue in the future (2009). After quoting Keynes on the danger of falling prices, he went on to suggest the risk “America will turn into Japan – that we’ll face years of deflation and stagnation – seems, if anything, to be rising”.

[1] Historical precedents to the recent crisis have been the subject of much recent attention. See, for example, Roubini and Mihm (2010). In their opening chapter entitled “The White Swan,” these authors suggest, “In the history of modern capitalism, crises are the norm, not the exception” (15).

[2] For example, John Taylor made this case for the recent crisis in *Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis* (2009).

Widely distributed comments by members of the FOMC were also strikingly consistent with interventionist views that recessions can persist in the absence of stabilising monetary, and even fiscal, policy. In October 2008, Federal Reserve Chairman Ben Bernanke offered support for a second fiscal stimulus package in testimony before the House Budget Committee (Bernanke, 2008). At the American Economic Association meetings in January 2009, Janet Yellen noted that FOMC policy decisions in December 2008 resulted in the federal funds rate "effectively hitting the "zero bound" for the first time since the Great Depression" (Yellen 2009, p. 2). After arguing that in the current context she did not think that "existing automatic stabilizers – of whatever size – are likely to provide a sufficient boost to aggregate demand" (Ibid., p. 6), she concluded that, "If ever, in my professional career, there was a time for active, discretionary fiscal stimulus, it is now" (Ibid,. p. 11).

Students reading popular business press outlets would also have regularly confronted concerns about economic collapse and arguments in favor of interventionist policy. *Wall Street Journal* readers learned in October 2008 that Paul Ashworth, chief US economist at Capital Economics, was warning, "pretty much everything points toward deflation" and suggesting "The only thing you can hope for is that the prompt action of policy makers can maybe head this off first" (Reddy, 2008). *BusinessWeek* warned that "deflation is a nasty situation" (Cooper, 2008a) and suggested "the Fed is trying to ensure [the economy] will be strong enough to avoid deflation" (Cooper, 2008b). In November 2008, *Forbes* suggested to readers that the US economy was facing "a serious risk of deflation as the slack in goods, labor and commodity markets becomes deeper; the risk that we will end in a deflationary liquidity trap as the Fed is fast approaching the zero-bound constraint for the Fed funds rate; the risk of a severe debt deflation as the real value of nominal liabilities will rise, given price deflation, while the value of financial assets is still plunging" (Roubini, 2008).

Finally, it is difficult to imagine an intermediate macro student remaining unaware of the frequency, variety, and magnitude of policy efforts taken to stabilise the economy in this period. Of the long list of policies implemented, we highlight two examples that intermediate students may have found particularly jarring.[3] First, the FOMC slashed the federal funds target rate to 0-0.25 percent in December 2008 – continuing a period of 17 months in which the rate was lowered 10 times, including seven cuts of a half-point or more. Second, the $787bn discretionary fiscal stimulus package was approved by Congress and signed by the President.

Again, it is important to note that the macro events of the recent crisis are *not* unprecedented and that it is reasonable to expect textbooks to include pertinent historical examples. The Great Depression is the obvious precedent, particularly in magnitude and worldwide scale, but financial crises that quickly spread to the real sector of economies have been disturbingly frequent. Macroeconomists are familiar with numerous examples from the past two decades alone, including Mexico, Argentina, Russia, the broad Asian crisis, and Japan's "lost decade." The Japanese case is particularly notable because in a prosperous, developed country, the collapse in real estate and stock markets led to a *prolonged* recession in which monetary policy was limited by the zero lower bound. Even more recently, then-Fed Chairman Alan Greenspan publicly ruminated over the possibility of monetary policy ineffectiveness in the US economy (Greenspan, 2002).

Macroeconomics as an area of study emerged from the crisis of the Great Depression and subsequent interventionist arguments hold that discretionary monetary and sometimes even fiscal policies are necessary to stabilise the economy. Recalling our starting premises, it seems fair to expect intermediate macro texts to include content that would help students appreciate arguments for and against discretionary stimulus in times of crisis. We are not suggesting texts should *advocate* the interventionist

[3] The New York Federal Reserve Bank offers a useful "Financial Turmoil Timeline" that lists policies regarding the crisis taken from mid-2007 through mid-2010; the timeline can be accessed via http://www.newyorkfed.org/research/global_economy/Crisis_Timeline.pdf

understanding of macroeconomics, but simply that they should expose students to serious coverage of historical examples of crises as well as the interventionist approach to these macro events. It is from this view that our study reviews currently popular texts.

3. Methodology

3.1 Textbook Selection

Publishers are unwilling to release sales figures so truly definitive top-seller lists do not exist (Hoaas and Madigan 1999, p. 526). Attempting to compile a sample of influential texts, we reviewed syllabi from intermediate macro courses at leading American undergraduate economics programmes and then browsed bestselling macro textbook lists of online textbook vendors. We selected those that appeared most frequently, yielding a set of 12 books that we consider representative of the texts used across the country at the intermediate level. The texts used in this study are listed in Table 1.

Table 1: Textbooks included in this study

Title	Authors	Edition	Pages	Year
Macroeconomics	Andrew B. Abel, Ben S. Bernanke and Dean Croushore	6	609	2008
Macroeconomics: A Modern Approach	Robert J. Barro	n/a	466	2008
Macroeconomics	J. Bradford DeLong and Martha L. Olney	2	515	2006
Macroeconomics	Rudiger Dornbusch, Stanley Fischer and Richard Startz	10	580	2008
Macroeconomics: Theories and Policies	Richard T. Froyen	9	424	2008
Macroeconomics	Robert J. Gordon	11	603	2008
Macroeconomics	Robert E. Hall and David H. Papell	6	521	2005
Macroeconomics	Charles I. Jones	1	423	2008
Macroeconomics	N. Gregory Mankiw	6	554	2007
Macroeconomics: Theories, Policies and International Applications	Roger LeRoy Miller and David D. VanHoose	3	513	2004
Advanced Macroeconomics	David Romer	3	618	2006
Macroeconomics	Stephen D. Williamson	3	650	2008

3.2 Quantitative Analysis

Our quantitative review focused attention on percentage of text devoted to certain concepts, extent to which topics were discussed, and placement of content. We began our review by developing a rubric for standardised analysis (Bethune, 1992; Kalmi, 2007; Lopus, Paringer and Leet 2008). This rubric was split into two groups of eight topics each. The first group of topics was designed to reflect "interventionist" views that crises can (and do) occur and persist absent government action. Informed public commentary that students were likely to confront – highlighted briefly in the preceding "Case for Macroeconomic Literacy" section – guided the framing of these terms. The second group of topics was designed to reflect "non-interventionist" views that the economy is stable, that the business cycle is an equilibrium phenomenon, or that the economy automatically and quickly adjusts to full employment.

Table 2: Topics included in quantitative analysis

"Interventionist" Topics	"Non-interventionist" Topics
liquidity traps	"optimal" policy rules
zero lower bound on nominal interest rates	inflation targeting
debt deflation	quantity theory of money
deflation	wage-price spirals and hyperinflation
liquidity preferences	rational expectations
the Great Depression	real business cycles
Japan's "lost decade" in the 1990s	long-run fixed levels of potential output (vertical LRAS)
financial crises in general	natural rate of unemployment/ NAIRU

Distilling the competing approaches to crises and policy responses into eight terms each inevitably yields imperfect lists. Findings of a review structured in this way are necessarily a function of the topics, ideas, and concepts selected before assessing the texts, so our quantitative results will reflect our initial choices. Naturally, arguments could be made for framing the topics and concepts in different ways. For example, consider two alternative approaches to the interventionist view of crises. First, one could select terms more specifically related to the recent crisis and responses, using such concepts as subprime lending and quantitative easing. Alternatively, one could use broader terms associated with the interventionist view that are not as directly related to the possibility of crises, such as the Keynesian multiplier or fiscal policy in general. The first alternative would likely find significantly less content while the second would likely find more. Similarly, alternative approaches to the non-interventionist tradition may have found more or less content. As mentioned above, our choices for interventionist topics were simply made to assess content related to concepts and precedents widely cited in policy debates and the business press, while our non-interventionist choices reflect notions of macro stability and government interventions as ineffectual at best.

Recognising the necessarily arguable nature of this type of review, we offer the quantitative component of our analysis as simply a standardised, numerical heuristic of the texts' relative treatments. It is also important to understand that these lists do not adequately capture the work we did, as our analysis went well beyond simply looking for these words and phrases to investigate all closely linked concepts. For example, all pages that indicated a connection between policy and rules, whether they were explicit arguments for a certain monetary approach, discretion vs. rule debates, the Taylor rule, etc., were examined to determine if content on those pages should be included in the counts for "optimal" policy rules. Indeed, there is no unassailable way of quantifying this information, and we intend the lists of terms to be viewed as one component or illustration of our review rather than as the essence of our analysis.

The next step in designing our rubric was to acknowledge that many instructors do not cover every chapter in a text and that the coverage devoted to later chapters may be less comprehensive. Therefore, to evaluate the relative placement of topics, we split each text into four equal sections by page number. Then, reviewing each text page by page, we recorded whether and where each topic was discussed or simply mentioned. In a technique derived in part from work by Bethune (1992) and Kalmi (2007), page counts for each topic in quarter-page units were recorded for all four quarters of each text. A brief but explicit mention of a topic was recorded as a quarter page. While this method does not provide insight into the quality of coverage, it does allow for comparisons of focus across topics, texts, and relative location (Bethune, 1992). To prevent a potential double-counting bias among related ideas, a total for any of the topics in each group was recorded as well. For example, if a half-page discussion of liquidity traps also explicitly mentions the zero lower bound, we counted it as a half-page for liquidity traps and a quarter-page for the zero lower bound, but also as just a half-page for interventionist topics in that section of the text.

Then, drawing on a technique used by Lopus, Paringer, and Leet (2008), we noted whether each quarter of the text omitted, simply mentioned or discussed each individual topic. This methodology was designed to evaluate if, where and to what extent each of the texts incorporated the chosen concepts. To illustrate our methodology, consider DeLong and Olney's quarter-page, yet thorough, discussion of deflation that quotes Keynes at length. This section explains "we have not had experience with deflation – falling prices in general – since the Great Depression of the 1930s" (2006, p. 226). Our analysis incorporates this passage as a quarter-page on interventionist topics as well as both a discussion of deflation and a mention of the Great Depression in the second quartile of this text.

In our quantitative analysis, we chose to include all content related to our topics, regardless of how it was presented. There were many instances where terms appeared but were treated in dismissive ways. All judgments about tone and treatment were reserved for our qualitative analysis and did not influence our counting methods.

3.3 Qualitative Analysis

Following Reardon (2007), we perused each chapter of the 12 texts to evaluate the broad approach each takes in treating the topics identified. This process consisted of scanning each page, reading relevant passages, and noting presentation of the concepts and the context in which they appear. This process also allowed us to monitor the accuracy of our quantitative findings and to check for use of less common vocabulary when referring to our selected concepts.

4. Results and Findings

4.1 Quantitative Analysis

Our quantitative findings indicate a consistent emphasis on selected non-interventionist topics and concepts across the set of texts, both in terms of the proportion of space allocated and the placement and treatment of topics. The space allocated to our selected groups of topics favours non-interventionist topics by a ratio of over three-and-a-half to one overall; this emphasis is particularly pronounced in the first half of the texts where this ratio is nearly four-and-a-half to one.[4] Table 3

[4] Our presentation of proportions and percentages in this section does not imply that we have optimal figures in mind. Rather, these observations illustrate the dominance of non-interventionist approaches found in our review.

illustrates the average percentage of the texts allocated to each group of topics by halves of textbook and overall.

Table 3: Mean percentage by topic group and location in texts

Section	Interventionist	Non-interventionist	Ratio
1st half	1.14%	5.14%	4.49
2nd half	2.27%	7.28%	3.21
Entire book	1.73%	6.21%	3.58

The texts allocated 6.21 percent of their space to our selected non-interventionist topics, while selected interventionist content constituted 1.73 percent of the books. In other words, 1 of every 16 pages examined covers the non-interventionist topics while 1 in every 58 covers the interventionist content. Those that included the most coverage of the interventionist ideas as a percentage were Mankiw at 3.38 percent and Froyen at 2.95 percent. At the other end of the spectrum, three texts devoted less than 1 percent to the interventionist ideas: Jones at 0.83 percent, Williamson at 0.38 percent, and Barro at 0.32 percent. In contrast, seven texts allocate 5.5 percent or more of their space to the non-interventionist ideas, led by Froyen at 14.39 percent and Romer at 10.60 percent.

Not a single text devotes more space to selected interventionist topics than non-interventionist content. This may not be surprising given the recent dominance of the non-interventionist view. Considering our fundamental premises, however, the gap between the relative attention given to each is disconcerting. When we sort the percentage of textbook space allocated to each group of topics for all 12 books, the highest 11 percentages are all from the non-interventionist group.

Table 4 summarises findings on the number of texts that omitted, simply mentioned or discussed each of our 16 topics. Non-interventionist topics are included in more texts and presented at length with much more frequency. Only one of the eight non-interventionist topics was omitted from more than two textbooks while all eight were discussed in at least half of the books. In fact, whenever non-interventionist topics were included, they were almost always discussed at some length rather than simply mentioned. In contrast, of the interventionist topics, only the Great Depression and deflation were included in 10 or more texts. Interventionist topics were much more likely to be found as passing or brief mentions rather than as a focal point of any sort of discussion or analysis.

Finally, we excluded mere mentions to assess the number of texts that discuss each topic and the placement of these discussions. Table 5 confirms the prominent focus allocated to the non-interventionist concepts as a whole. Seven of the eight non-interventionist terms are discussed in some detail in at least nine of the texts, while the only interventionist topic that receives equivalent attention by this measure is the Great Depression. The emphasis on non-interventionist topics is similar across the set of books and over different sections. Discussions of interventionist topics tend to come later in the books.

Our quantitative findings all support the conclusion that the non-interventionist ideas receive superior attention in the texts. Percentage of text, the extent to which topics are covered and placement of content all reflect dominant attention given to the non-interventionist concepts. Our qualitative analysis largely echoes these observations.

Table 4: Treatment of topics in texts reviewed

	Topic	Omitted	Only mentioned	Discussed	Total including topic
Interventionist topics	Great Depression	0	1	11	12
	Japan/ "lost decade"	0	5	7	12
	deflation	2	6	4	10
	liquidity trap	3	2	7	9
	financial crisis (broad)	5	3	4	7
	liquidity preferences	6	2	4	6
	zero lower bound	6	2	4	6
	debt deflation	9	1	2	3
Non- interventionist topics	inflation targeting	0	1	11	12
	rational expectations	0	1	11	12
	real business cycles	0	1	11	12
	"optimal" policy rules	1	0	11	11
	NR of unemployment/ NAIRU	1	0	11	11
	wage-price spirals and hyperinflation	1	2	9	11
	QTM	2	0	10	10
	vertical LRAS	5	1	6	7

Table 5: Texts discussing topic by location

	Topic	1st half	2nd half	Entire book
Interventionist topics	Great Depression	7	10	11
	Japan/ "lost decade"	3	6	7
	deflation	1	2	3
	liquidity trap	3	4	7
	financial crisis (broad)	0	4	4
	liquidity preferences	2	2	4
	zero lower bound	1	3	4
	debt deflation	1	1	2
	Mean	**2.25**	**4.00**	**5.25**
Non- interventionist topics	inflation targeting	0	11	11
	rational expectations	3	10	11
	real business cycles	3	9	11
	"optimal" policy rules	1	10	11
	NR of unemployment/ NAIRU	8	7	11
	wage-price spirals and	5	4	9
	QTM	9	4	10
	vertical LRAS	5	4	6
	Mean	**4.25**	**7.38**	**10.00**

4.2 Qualitative Analysis

Given the events of Autumn 2008 and the ensuing public discussions and policy implementations, appealing macroeconomic texts would offer two related but somewhat distinct elements. The less ambitious element would be to identify and clearly explain concepts that have traditionally been linked to crises. As noted in the “Case for Macroeconomic Literacy” section above, several of these concepts – such as the liquidity trap, Japan’s “lost decade” and deflation – were commonly referenced among informed commentary regarding the recent crisis and policy actions. A second, more ambitious element would be to offer serious *theoretical* support for the possibility of persistent recession and the resulting need for discretionary monetary and fiscal policy. We address both of these distinct but closely related elements here. Reading relevant passages and noting the presentation of concepts helped us assess the depth, clarity and sophistication of selected interventionist arguments that are particularly relevant to understanding recent events. We will address the topical coverage before moving to theoretical treatments.

4.2.1 Concepts

Most texts presented topics that have been associated with severe macroeconomic downturns such as the Great Depression and Japan’s “lost decade” but the quality of these treatments varies significantly. DeLong and Olney is probably the strongest text in terms of devoting significant attention to concepts associated with financial and economic crises. Early in their text they provide a useful discussion of the 1929 stock market crash, the important role of expectations and reinforcing effects, and the Great Depression (pp. 59-60). The authors provide useful illustrations, such as, “If you thought the economic future might be bad, you had a powerful incentive to avoid debt. And in the short run the easiest way to avoid debt is to refrain from purchasing large consumer durables on credit” (p. 59). In the middle of their text, they mention deflation and note we are fortunate there has been no deflation since the Great Depression (p. 226). Later, there is a strong treatment of financial crises and flight to safe, liquid assets (p. 409).

Mankiw’s text also fared better than most in terms of identifying and discussing concepts important to understanding recent macroeconomic issues. In fact, Mankiw is the only author to include all eight interventionist topics from the quantitative analysis. On page 321, Mankiw devotes attention to the destabilising effects of deflation, telling students, “Many economists blame this deflation for the severity of the Great Depression. They argue that the deflation may have turned what in 1931 was a typical economic downturn into an unprecedented period of high unemployment and depressed income.” In explaining this, he mentions the dangers of debt deflation and links this to a decrease in investment spending: “When firms come to expect deflation, they become reluctant to borrow money to buy investment goods because they believe they will have to repay these loans later in more valuable dollars” (p. 323). These discussions are quickly paired with a “case study” section on the “Japanese Slump of the 1990s” (pp. 324-5). This thorough, full-page discussion concludes that “although economists differed about whether fiscal or monetary policy was more likely to be effective, there was wide agreement that the solution to Japan’s slump, like the solution to the Great Depression, rested in more aggressive expansion of aggregate demand”. Mankiw proceeds to discuss the liquidity trap and explains that nominal interest rates are limited by the zero lower bound.

Three other texts also provide adequate coverage of related topics. The Abel, Bernanke and Croushore (2008, pp. 424-7) and Dornbusch, Fischer and Startz (2008, pp. 254-5) texts discuss the possibility of a liquidity trap in similar ways, but both treatments might be judged overly sanguine. A useful illustration is Dornbusch, Fischer and Startz’s passage that suggests a zero lower bound situation is “unlikely” in the US (2008, p. 255). Gordon’s text also links Japan’s difficulties to deflation (2008, pp. 118-9) and mentions the possibility of a liquidity trap and monetary policy ineffectiveness. At best, his approach probably sends a mixed message to students about the dangers of falling price levels. In a section on Keynesian arguments about the failure of self-correction (pp. 216-8), he writes, “Unfortunately, the stimulative effects of price deflation are not always favorable, even when the Pigou Effect or real balance effect is in operation" (p. 218). Students may have difficulty reconciling Gordon's characterisation of deflation as "not always favourable" with the gravity of the business articles that warned "deflation can choke a weak economy and spiral out of control" (Reddy, 2008).

The remaining texts all offer what we judge to be inadequate treatments of concepts relating to the recent crisis. Romer includes nearly every selected interventionist topic, but they are not featured as important concepts for students to think about and the tone in which they are presented is often rather dismissive. Hall and Papell (2005) do mention the zero lower bound (p. 398) and discuss Japan's problems with deflation (pp. 511-7), but these topics are marginalised – to the last 10 pages of the text in the case of Japan. They also stress that one of five central ideas gleaned from "recent developments in macroeconomics" (p. 464) is that the "economy is basically stable" (p. 466). Barro (2008) and Jones (2008) include the fewest number of relevant concepts and our qualitative review confirms this lack of attention. Neither provides explanations of monetary policy ineffectiveness, and Barro discusses the Laffer curve (pp. 335-6) with significantly more seriousness than the Keynesian multiplier (pp.400-1). Finally, students using Williamson's text might be particularly confused by the alarm expressed over a falling price level when deflation is covered only in a feature-box titled "Should the Fed Reduce the Inflation Rate to Zero or Less?" (2008, p. 575). This box begins by telling students, "Our monetary intertemporal model tells us that the optimal rate of inflation is negative, which implies that the Fed should engineer a rate of growth in the money supply that would give permanent deflation".

In summary, DeLong and Olney (2006) and Mankiw (2009) offer the strongest coverage of relevant concepts, while Abel, Bernanke and Croushore (2008), Dornbusch, Fischer and Startz (2008) and Gordon (2008) offer adequate presentations. We identified this topical coverage of concepts as a less ambitious element because a more beneficial textbook treatment would not only familiarise students with relevant concepts, but also offer an opportunity to understand the theoretical underpinnings of arguments for and against the dramatic policy actions that were taken.

4.2.2 Theory

Our review found considerable variation in the treatment of the theoretical motivations behind interventionist responses to crises. We judge several to be generally effective in developing interventionist analysis in a serious way, but five were found to be particularly weak. Froyen offers the most robust treatment of interventionist theory. As mentioned before, this derives from his commitment to incorporating both recent developments and ongoing fundamental disagreements between macroeconomists. His success in presenting interventionist analysis is even more notable in light of the fact that he unambiguously devotes the largest share of his text to our selected non-interventionist topics.

Froyen's approach to investment is distinctive. He quotes revealing sections from Keynes to highlight his arguments related to the volatility of investment: "Knowing that our own individual judgment is worthless, we endeavor to fall back on the judgment of the rest of the world, which is perhaps better informed. That is, we endeavor to conform with the behavior of the majority or the average" (pp. 79-80; citing Keynes 1937, p. 214). Froyen nicely summarises some of the key insights in writing that "expectations of the future profitability of investment projects rested on a precarious base of knowledge, and Keynes felt that such expectations could shift frequently, at times drastically, in response to new information and events" (2008, p. 80). In this way, Froyen offers a foundation for reinforcing effects in consumption, investment and income that can create significant demand volatility.

Froyen does more than mention historical examples of a liquidity trap, augmenting them with theoretical foundations. He traces through Keynes's three motives for holding money (2008, p. 103) and devotes two pages to speculative demand for money. This analysis culminates in the possibility of a liquidity trap. Froyen's text provides a helpful framework for understanding recent events and policy because he does not simply present interventionist arguments and then abandon or largely ignore them later. Rather, throughout his text, Froyen treats the interventionist approach as one of two general, ongoing traditions of macro theory.

We found Miller and VanHoose to offer the second-best theoretical development of interventionist concepts. Like most others, they include the basic mathematics of the multiplier, but also provide an intuitive understanding of the reinforcing relationship between consumption and income. They connect this to potentially sharp changes in investment spending (Miller and VanHoose, 2004, pp. 158-9). These ideas are quickly reinforced with discussions of the 2001 recession in the United States. The text also explicitly develops the portfolio motive for holding money (Ibid., pp. 199-200).

Three other texts offer generally effective treatment of theoretical concepts. Dornbusch, Fischer and Startz offer a significant treatment of multiplier concepts (pp. 202-5, 244) after a thorough early discussion of business cycles. Their text devotes roughly one full page to a sound Keynesian explanation of the causes of the Great Depression, emphasising that the “Keynesian model not only offered an explanation of what had happened but also suggested policy measures that could have been taken to prevent the Depression and that could be used to prevent future depressions” (pp. 467-8). Gordon quickly treats some of the fundamental Keynesian arguments related to the failure of self-correction and need for interventionist policy in chapter 7 of his text (2008, pp. 216-8). However, this treatment is limited to flat LM and steep IS curves with little of the underlying explanation that is developed in Froyen. Finally, Mankiw (2007) also offers a generally effective treatment of Keynesian theoretical frameworks, but it is somewhat tempered because Keynesian analysis is not introduced in a thoroughgoing way until the section on “Macroeconomic Policy Debates” in part four of a five-part text. All these authors do devote attention to Keynes and the IS-LM model, though failure of self-correction is typically presented in terms of a “sticky-prices model”. It is difficult to understand how students will comprehend recessions as a result of sticky prices when the dangers of deflation and interest rate policy ineffectiveness are emphasised in informed public discourse.

Hall and Papell (2005) and Jones (2008) rarely discuss Keynesian analysis in any meaningful way, and texts that strongly commit to real business cycles (Barro, 1996 and Romer, 2006) or a strong emphasis on microfoundations (Williamson, 2008) are, as expected, weak in presenting any theoretical context for recent policy actions. The models featured in these five texts inevitably lead to the conclusion that policy rules are preferable to any discretionary policies and that fiscal policy is always ineffective, if not harmful.

5. Conclusions and Looking Forward

5.1 Summary of Findings

This review began by questioning how well textbooks would have prepared students for understanding arguments about the possibility of crises and need for policy intervention. Once again, we recognise quantitative findings will reflect choices made by reviewers and alternate choices may yield differing results. However, we are confident that any review seeking to address our opening question by comparing content regarding crises and policy responses associated with the two traditions of macro thought would reach similar conclusions.[5]

Our quantitative results reveal relatively little crisis-related interventionist content, both overall and particularly in comparison to the space allocated to non-interventionist ideas. We find the serious and

[5] We believe even a casual look at any of the twelve texts reviewed here will lend confidence to this assertion and our findings in general. Quantitative findings or relative rankings of texts may differ with alternative approaches, but the overall picture seems likely to be very similar.

thorough treatments of the non-interventionist content to overwhelm attention given to relevant interventionist material in terms of percentage allocated by each book, the extent to which topics were discussed, and the placement of content.

Our qualitative analysis approached the texts with two questions in mind. First, how well did texts expose students to key concepts associated with recent events? Second, how well did texts develop the theoretical framework necessary to understand debates about the policies that were implemented? DeLong and Olney (2006) and Mankiw (2007) devoted the most significant attention to concepts related to crises. Abel, Bernanke and Croushore (2008), Dornbusch, Fischer and Startz(2008) and Gordon (2008) also provide adequate coverage. Froyen (2008) is the strongest text in terms of developing the theories that motivate recent policies of the Fed, Treasury, and Congress. Miller and VanHoose (2004) run a relatively close second with Dornbusch, Fischer and Startz (2008), Mankiw (2007) and Gordon (2008) also providing generally adequate treatments of the Keynesian foundations for interventionist approaches.

Given our opening premises, we conclude that the overwhelming emphasis many intermediate texts give to non-interventionist approaches would not have prepared students well to either understand important historical precedents or fully comprehend the crisis, policy responses, and contemporary commentaries.

5.2 Looking Forward

In light of our findings of generally inadequate helpful coverage in our selected intermediate texts, the 2008-09 crisis would seem to call for revisions that, at a minimum, elucidate the foundations of recent policies. However, comments by prominent economists encourage little optimism. Robert Shiller writes to the *New York Times*: "I fear that there will not be much change in the basic paradigms… The rational expectations models will be tweaked to account for the current crisis. The basic curriculum will not change… I hope I am wrong" (Cohen, 2009). The same *Times* article notes that John Taylor plans to include content about the crisis, but has indicated he believes the "explanations of fundamental principles won't change".

Writing on changes to economic pedagogy necessitated by the crisis, Mankiw's May 2009 *New York Times* piece seems to validate Shiller's fears. Three of the four "subtle ways" Mankiw suggests the teaching of economics will change amount to tinkering with current treatments on "the role of financial institutions", "the effects of leverage" and "the challenge of forecasting". We consider his fourth area for potential change, "limits of monetary policy," to be more substantive. Mankiw (2009) writes:

> Only rarely in the past did students ask what would happen if the central bank cut interest rates all the way to zero and it still wasn't enough to get the economy going again. That is no surprise; after all, interest rates near zero weren't something that they, or even their parents, had ever experienced. But now, with the Federal Reserve's target interest rate at zero to 0.25 percent, that question is much more pressing.

We found this to be surprising in three ways. First, there *are* recent historical examples. Japan is the obvious case, but in the US, the FOMC lowered the federal funds rate to 1.00 percent in June 2003 and kept it there for a year. Greenspan publicly discussed a zero lower bound, even if 1.00 percent is not "near zero" (Greenspan, 2002). All of the texts reviewed here were published well after Japan's "lost decade" and popular discussions concerning the possibility of monetary policy ineffectiveness and potential deflation stemming from the 2001-02 recession in the US Second, we believe it is the role of the textbook to provide students with theories, tools and information to help them understand both past and potential future macroeconomic realities and policy options, regardless of whether students ask about such possibilities. Finally, hyperinflation is not likely to be "something they, or even their parents, had ever experienced" or view as pressing, yet Mankiw devotes roughly five of the first 108 pages of his text to hyperinflation, its causes, costs and policy implications. Nevertheless, we do appreciate that Mankiw seems to be calling for at least one significant change in textbook treatments.

More widespread and thorough treatment of the limits of monetary policy would be a step in the right direction, but given our starting premises, we believe intermediate students would be better served by more fundamental changes. As macroeconomic crises and subsequent discretionary stimulus seem likely to recur in the future, we support changes that better prepare students for understanding both historical precedents and relevant theory. Vigorous coverage of non-interventionist arguments is useful and appropriate, but more serious treatment of long-standing interventionist ideas and approaches would have helped students understand and critically assess recent public debates and implemented policies.

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