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Effective supply and effective demand

I'm a textbook writer. I tell stories. I'm not ashamed of telling stories. All economists do. The difference between the stories textbook writers tell and the ones economic theorists tell is in how elaborately those stories are specified, and how intricately the details are tied together. The stories textbook writers tell are simple stories—the simpler the better. In textbooks, the details aren't intricately combined and may even be inconsistent as long as they are simple. But in a textbook the story line has to be a good one. You can't hide a missing reasonable story line by losing the reader in the details, as you can in a mathematically laden theoretical paper.

I am also a Post Keynesian fellow traveler, known for taking semi-outrageous positions, and I hate to disappoint. So let me begin this paper with an outrageous statement: "Post Keynesians should give up the term 'effective demand' and replace it with 'effective supply.'"

The reason I believe Post Keynesians should do so has far less to do with history, logic, or economic theory than it does with marketing. The term "effective supply" could help Post Keynesians better market their ideas. Put bluntly, in today's environment you can't market the term "effective demand"—you *can* market the term "effective supply."

Now if I believed telling the Post Keynesian story using effective supply rather than effective demand would make a big difference to the simple Post Keynesian story suitable for textbooks I would not be making this argument. But in my view it doesn't. At the aggregate level, once expectations are built in, supply and demand interact in a way that the two can seldom be distinguished empirically. All we observe is aggregate output and price level, and even these are synthetic concepts.[1]

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[1] Aggregate output is a glob. It consists of an enormous number of heterogeneous goods that have been aggregated together into a composite term. There are well-known problems with that aggregation. The price level is the price of that glob. It too is subject to major aggregation problems. Students are quite willing to let these problems slide by, as long as they aren't going to be on the exam.

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Supply and demand are fictional characters added for pedagogical or ideological purposes.[2]

Let me explain the context for my argument. The textbook game, given current institutions, is the following: Given observable characters, GDP and price level, spin a believable story, using the terms aggregate supply and aggregate demand, that students can relate to and come away thinking they understand something, and that a sufficiently large number of faculty (how large depends on the desired market share) will accept as being a reasonable description of what economists believe. For Post Keynesians who want to reach a larger teaching audience this presents a problem, since 50 percent of the professors have never heard of Post Keynesian economics, 30 percent have heard of it and are unsympathetic, 19 percent have heard of it and are somewhat sympathetic, and 1 percent might be called Post Keynesians. But even for those of us who are fellow travelers, and want to give Post Keynesians a fair hearing, it's a tough assignment to tell the story in a way that will seem to make sense to the majority, but at the same time be PK-compatible.

The reasons it is such a tough assignment are the following: First, the story the textbooks tell about output and price-level adjustment isn't clear, and when it seems to become clear there seems to be some serious confusion in the underlying logic. Second, the institutional limitations of telling the story must involve aggregate demand and aggregate supply specified in price level and GDP space. (Telling a Z story limits sales to the 1 percent of Post Keynesians, and a portion of the 19 percent of sympathizers, and that eliminates you as a potential player in the textbook game.) Third, the story must also have both a long-run and a short-run aspect to it. Fourth, there's the Colander 15 percent rule: The textbook story can only deviate by 15 percent at most from the story the primary competing books tell. (More than that requires professors to change their notes too much.)

The short-run story the textbooks currently tell is centered around aggregate supply and demand, with aggregate demand taking the lead role. In the long-run story aggregate supply—potential income—becomes the lead character, and the role of aggregate demand has fizzled out. In the long-run part Say's Law rules, and in the short-run part Hansen's Law

[2] At times, clearly one or the other will predominate. In the Depression it was obvious that the capacity to produce existed, but no one was buying the goods: Demand was clearly predominant. Alternatively, in World War II, when all people were working beyond what seemed humanly possible, it was fair to say that supply was the constraint. But generally, reasonable arguments can be made that either supply or demand predominate as the economy is producing way below "perfect coordination capacity."

rules. I'm unhappy with this two-part story. But that is the story the textbooks tell. Using Hansen's Law for the short-run story and Say's law for the long-run story has the advantage of being simple, and centrist—two traits that textbooks gravitate toward. Any replacement story would have to be equally simple and centrist.

I've struggled with these limitations through four editions, and have tried to make some changes to the story the textbooks tell. I first fought the battle on technical grounds, pointing out that the story had the characters mislabeled. What the standard short-run story called an aggregate demand curve was actually a goods market equilibrium curve, and it was unclear what the aggregate supply curve was. In a variety of papers I, and others (see, for example, Colander, 1995) tried to straighten out the story, but I learned that most professors did not want the story straightened out. They felt that to tell the correct story would put it beyond the students. Simplicity, not logical correctness, was their key demand of the story.

As I progressed through editions, I discovered that winning on technical grounds was irrelevant to sales. Simplicity mattered far more. As I learned that I changed the presentation. Throughout my first three editions I moved more and more of the analytics to appendices. I went through various names for the aggregate demand curve to make it clear that it was not a demand curve.

The result of my fight is that I made a slight difference in the standard textbook story. Now all books clearly point out that aggregate supply and aggregate demand are different concepts than their micro counterparts, and those that still present a Keynesian aggregate expenditure/aggregate production model tie the two together following the method I developed in the first edition. But I lost the war of terminology.

In the fourth edition I have surrendered on terminology. I now use the standard AS/AD terminology, and wave my hands in much the same way that other books do when I tell the aggregate adjustment story. Although I gave up the name fight mine is still the only book to explicitly discuss the multiplier as one of the factors affecting the shape of the AD curve, and as one of the factors that affects the size of the shifts in AD. That makes the story a bit more complicated than many professors want, and hence will cost me in sales, but it preserves an important part of the Keynesian policy message.

How much emphasis to give the long run

The fight today in textbooks is not about the AD curve. That's settled. The fight is about how much emphasis to give the short-run story compared to

the long-run story, and hence to supply as opposed to demand. The modern books are giving much more emphasis to the long run and supply, and much less emphasis to the short run and demand.

In modern books the long-run story is now told first. For instance, Mankiw's first edition principles book had almost no short-run or demand discussion. Discussions of long-run supply predominated.[3] "Modern" books are following suit, and the conventional wisdom is that demand-based/short-run books are on their way out as retirements replace their users with younger professors who have been weaned on the long-run supply-based story.

Deciding how to position oneself in such a market environment is difficult. The story I would like to tell might be called the never-ending story. It is a story in which both supply and demand play roles in both the long and short runs. It is a story in which the short run evolves into the long run, which becomes yet another short run. I am prevented from telling this story by two problems. The first is that it is too complicated. The existence of a unique long run is an easy story line, but an evolving equilibrium sounds too complicated, and will not sell. Hence I've got to put such discussions in Added Dimension boxes—the ones most students don't read.[4] The second reason I can't tell that story is that it isn't the one most economists use. Post Keynesians and high theorists may be comfortable with it, but the majority of professors aren't. The story they are comfortable with is one in which the long-run growth rate is given by God, or some other long-run anchor that demand cannot affect.

Even if I could tell the never-ending story, I would still have a problem, since by having the action always in the short run I would be giving too much emphasis to demand, and would not be meeting the centrist criterion. Which brings me back to why I think Post Keynesians should replace their emphasis on effective demand with an emphasis on effective supply. Doing so would make it much more likely that the Post Keynesian story could become integrated into the texts. Moreover, it would be as consistent, if not more, with the Post Keynesian story that a textbook could tell than the current textbook short-run stories are.

[3] That violated the centrist commandment, and he has slightly increased the coverage of the short run and demand in the second edition, but it still remains a long-run supply-focused book. (See my "Teaching Keynes in the 21st Century.")

[4] In my latest intermediate macro book (written jointly with Ed Gamber), I try to counter that long-run focus with a "yellow ribbon" strategy. Yes, there is a long run. In fact there are many long runs. Which long run we arrive at depends on what happens in the short run. So the long run can only be understood through the study of the short run.

The difficulty with the "effective demand" terminology goes back to its first use in the *General Theory.* As Pasinetti (1997, p. 94) points out, Keynes's Chapter 3 (Keynes, 1936) discussion of the principle of effective demand was actually a discussion of a point of intersection of an aggregate supply, or Z, function and his D function which he defined as "the proceeds which entrepreneurs expect to receive from the employment of N men." Since "effective demand" is the point of intersection, Keynes could have as easily called it the principle of effective supply. It is an equilibrium from which there is no tendency to deviate, so there is no significant pressure to adjust to the long run. It is a short-run supply-based equilibrium that depends on expected demand. It is a concept that is inconsistent with Walrasian general equilibrium, and that does not fit into a perfectly competitive model along Walrasian lines. It is a monetary equilibrium (it must be—it is specified as proceeds) that requires a monetary system and a price level.

There is a long history that led the profession to its current state, where long-run supply dominates and Keynesian ideas are forgotten. I won't go through much of that history other than to say that in my view the loss of the Keynesian story line for textbooks goes back to an early compromise between classicals and Keynesians: Classicals got the long run and Keynesians got the short run. I, as do most Post Keynesians, think that that compromise led to the unacceptable long-run story. It only makes sense for Keynesians to accept the short run as their domain if there is no unique long run. The aggregate economy is not always self-equilibrating in a time period relevant for policy considerations. This, to me, is the most important element of the Keynesian message.

Initially in the texts there was no relevant long run—we were all dead in the long run, and short-run demand-based models dominated the texts. But given the focus on effective demand, this meant that supply was forgotten.[5] Once that happened, the door was open for supply to enter in some other way, and the way it did was through the long run. Once Keynesians accepted that supply entered the model through the long run, Keynesian ideas were doomed.

The effective supply story

It will not be easy getting Keynesian ideas back into the texts unless the economy falls into a major recession. The most likely way of reintroducing

[5] That was not what Post Keynesians wanted, with Sidney Weintraub fighting against it, but it was what happened.

a Keynesian story to the texts is to bring back supply in the short run.[6] That is why I favor a story that highlights effective supply rather than effective demand. (I have sometimes called this an "unreal business cycle" story.) The "effective supply" story operates within an imperfectly competitive goods market, as does any effective demand story where supply depends on expected demand.[7] It also fits in well with structuring the macro problem as an aggregate coordination problem within a game theory context, as exemplified by the work of John Bryant (1996) and Richard Cooper (1999).

Here is a brief outline of the institutional structure underlying the story. It is one in which corporations make both pricing and output decisions. There is no perfect competition, so there is no formal way of specifying a supply curve. Instead there is a megacorp story in which firms are highly influenced by demand conditions. Hansen's Law does not necessarily hold in the short run: Demand does not create its own supply without going through supply.

Usually, businesses picture themselves as demand-constrained. Since most have constant or decreasing costs as output increases, when firms expect demand to increase, they increase the short-run quantity they supply, which, in the aggregate, rationalizes the increase in demand. Expectations of demand become self-fulfilling. These expectations must be fulfilled. If they are not, they will quickly change, but the role of demand works initially through expectations, and to incorporate demand into the story one talks explicitly about short-run supply decisions and the real world institutional structure within which they operate.

Telling the macro story in such an institutional framework would require a separation of short-run output supplied—the constrained amount of output supplied based on adjusted expected demand—and planned short-run output based upon initial expected output. In this supply-based story, firms have two short-run roles: They decide on investment, which contributes to demand and determines long-run capacity, and they decide on short-run production and prices, which influences the business cycle. This formulation makes suppliers, firms, and market structure central to the macro argument.

The revised story gives central importance to suppliers' expectations. Given the wrong expectations, increases in demand could lead to price rises, not output rises, regardless of where the economy is relative to

[6] Palley (1997) develops a technical model of Keynesian aggregate supply. A textbook model would have to be much simpler, emphasizing the idea that firms decide on short-run production, and that decision has consequences for the short-run equilibrium.

[7] See Robin Marris (1997) for a development of this argument.

potential. It also opens up the possibility of an incomes policy working. That incomes policy is designed to affect the price/output split —a split that is determined primarily by market structure and expectations.

Having given supply a short-run role, it becomes much easier to give demand a long-run role. In the never-ending story there is no potential income, no God-given natural rate of unemployment or growth constant. Instead, that potential income is continually being discovered. Moreover, it can be affected by demand: Increases in demand cause firms to try out new production techniques, increasing learning by doing, technological growth, and long-run potential output. Just as in the short run one cannot separate out supply and demand influences, in the long run one also cannot separate them out. The process works through supply, but demand plays a central role in those supply decisions.

Concluding comment

I suspect that my arguments may provoke many criticisms about how I am not staying within a Keynesian mode, and am violating Post Keynesian orthodoxy. That doesn't bother me. I don't think past discussions and history should straitjacket thinking and terminology. Whether it is a Post Keynesian story or a Classical story doesn't matter to me. I just want a reasonable story that can be told to principles students within the current institutional structure of textbooks.

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