

# Commentary: The Dog and the Frisbee

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This is a paper about simplicity, so I guess it's logical that it needed two discussants, rather than one. The paper is at heart indeed really simple. There is an emphasis on Knightian uncertainty and a clear message that more complex markets require more simple regulatory architectures, because more complex rules in a complex environment can get it wrong.

As someone who recently tried to simplify his life by programming his all-in-one remote to control the TV, DVD player and music system, I can tell you that the path from simplicity in theory to simplicity in practice is a difficult one.

One very important question that needs to be addressed in the context of this paper is what the objective function really is? Now Andy doesn't tell us that because essentially it seems to be taken as a given that financial stability is a good thing. But this brings up a fundamental issue. What exactly does financial stability mean, what is the outcome that we are trying to prevent and what is the outcome that we are trying to increase the chances of? Clearly, we would like to prevent catastrophe. Going by the experience of the last financial crisis, that is certainly a key objective of financial stability. But there is a question about whether by financial stability we also mean

providing room for financial markets to grow, to become more developed. Or is the objective really just to control finance to prevent damaging outcomes?

This becomes especially important when one moves beyond the advanced economy perspective to also considering this issue from an emerging markets perspective. There is a question whether finance should be allowed to grow in an unrestrained way in these economies.

Taking the Frisbee analogy, yes, one objective in playing Frisbee is to catch it. But then once you can catch it, you want to look cool catching the Frisbee. If you think about an advanced economy in the position of having reasonably well-developed financial markets, perhaps more complexity is along the way with the potential risks that entails. But for an emerging market, this brings up a more basic set of questions. An important issue these economies face is whether in fact, given the complexity of regulations that might be needed to manage financial markets—or perhaps simple regulations that we don't really know about—they should allow finance to become more pervasive. This brings up a broader and more fundamental question. What level of finance is good, or consistent with promoting growth and stability? Clearly, finance is good, perhaps more finance is better, but there seems to be a threshold at which this proposition is reversed.

Now this opens up another broad set of questions. First, why has finance become more complex? Andy talked about the Arrow-Debreu framework, and in that framework, more instruments that allow you to span the set of contingencies makes a lot more sense. The more complete markets are, the greater economic welfare is going to be. But something seems to have gone wrong in terms of the process of completing markets, where in fact, rather than diversifying risk, we seem to have created incentives for pooling risk.

So the question, which Jose alluded to in his remarks, is whether the complexity and riskiness of financial markets is, to some extent, a function of the complexities of regulations? Or is it a function of regulators who are not quite sure what the objective function is, and in the hope of trying to prevent catastrophe, are doing things to try and prevent disaster? This is a difficult issue. Andy in his paper has

an analogy about doctors. Good doctors are going to be restrained by rigid rules. But from the point of view of financial regulation, the key issue is to make sure that the actions of bad doctors—the bad apples—don't result in very bad outcomes. So it is important how you structure the question about why financial markets have become more complex. How they got to this level of dangerous complexity is an issue we will have to contend with.

The second issue is uncertainty. What is the source of the uncertainty that is relevant here? One may be informational uncertainty. We just don't know enough about the right probability distribution. Perhaps there are even states of the world that we are not able to comprehend with our limited minds. But perhaps there is an additional dimension coming from policy uncertainty; the role of the government. And that adds something to the mix that essentially is a function of policies. So if you throw in government policies, if you throw in the regulatory response, perhaps that's why we are leading up to the sorts of adverse outcomes in financial markets we are seeing right now. I think the notion that simplicity is important is the right one, but it again forces us to think hard about these more fundamental questions.

Now let me take Andy's proposition at face value and think it through because, after all, it is hard to be against simplicity. Simplicity and beauty are wonderful things. The question is how we get them structured the right way. First of all, if you had to think about simple rules, one immediate question we face is—what simple rule? Andy has given us an example of the  $1/N$  rule in terms of leverage ratios and shows how that makes sense. But the question remains—what if the rule based on past performance turns out not to be the right one. Especially because financial markets evolve over time, the right simple rule may not always be the same. Financial markets are becoming more complex and sophisticated, and moreover there are examples of simple transparent rules that have worked and some that have not.

If you think about the lessons that many emerging markets learned from the crises of the past, it was that short-term foreign currency denominated external debt is not such a good thing. That is a useful

lesson. We've learned it, we've absorbed it—or at least the emerging markets have. Perhaps the advanced economies forgot about some of those lessons, although much of their debt was domestic currency denominated. So each time there is a crisis, we learn a new lesson. My concern again is that the simple rule that works relative to past crises may not necessarily be the right one for the future.

A second rule that makes a lot of sense is inflation targeting. Conceptually and in practical terms, it's clean and elegant. Theoretically, it makes good sense. But again what we've learned from the crisis is that a pure focus on inflation targeting without due explicit regard to financial stability considerations can lead to potential problems. The jury is still out on how much central banks should take on in terms of their mandates, but I think the very simple rule that we started out with has become somewhat untenable.

The second issue when one thinks about simple rules is the issue of adaptation and evolution. Financial market participants are out there to make a buck. Andy talks about the number of people who are there in major financial firms to comply with regulations. It's not just complying with regulations but, to put it bluntly, many of those people are there to think about how to get around those regulations and make money. So once you put a simple rule on the table—or a complex rule—financial markets are going to spend a lot of time trying to find ways around that rule. And the simpler the rule, one might make the argument that it's going to be harder to get around, but again there are very smart people with lots invested in trying to get around these rules. So, if one sets in place a simple rule that doesn't adapt and evolve with evolving financial markets, one could again be beset with problems as financial market participants find ways to get around the spirit of the simple rule. This is not to argue with the notion of having a simple rule, but it is almost certainly going to require some element of complexity, at least in terms of the dynamic evolution of the simple rule.

Andy does talk about experiments that he conducts and reports in the paper to deal with this issue. Very interesting counterfactuals where he asks—what if he had a simpler rule in place, rather than the more complex rules we've had over the last couple of decades? Would

we have seen better outcomes? And the answer in that sort of context turns out to be yes. But that doesn't take account of the fact that if he did have the simple rules in place, markets may have evolved, adapted and perhaps gotten themselves into trouble in some other fashion. We also have to remember that we do live in a very complicated second-best world, and Andy makes the point that quantity criteria in terms of regulation sometimes makes sense. It's true that simple quantity criteria are transparent, in some ways are harder to get around, but again in a second-best world, these things can cause problems.

Let me give you one very specific example from an economy that I know somewhat well, which is China. China introduced interest rate liberalization in 2004, and it made very good sense. They gave banks the ability to lend well above the baseline rate, so essentially there was no cap on interest rates anymore. The spread on interest rates was still maintained, and initially as the People's Bank of China had hoped, things worked exactly as you'd have anticipated. The People's Bank of China, in its quarterly monetary policy reports, shows what it calls the actual lending rate, which is a weighted average of the rate at which loans are actually made. So you allow banks to lend to the private sector, they price in risk, the actual lending rates started diverging from the baseline rate—a pretty big gap of about 150 basis points opened up. Great. Credit going to the private sector—just what one wanted. Now in 2007, the People's Bank of China was a little concerned that after it had recapitalized the banks and fixed their balance sheets, lending may have gotten out of control, with a very high rate of credit expansion. So it said two simple things to the banks: don't lend too much, and second, we don't want to see too many new nonperforming loans appearing on your books. Two simple, well-intentioned quantity indicators. What happened? That gap between the actual lending rate and the baseline rate disappeared about three or four quarters thereafter. Why? Because the large stock of outstanding loans that the banks had was to large state enterprises. The good state enterprises didn't need the Chinese banks' money. So, when there was a quantity constraint imposed on the amount of credit the Chinese banks could give out, they knew that if they stopped lending to enterprises they had given credit to in the past, those would show up soon as nonperforming loans on their books.

So in fact, not only did you have little credit growth for the private sector, whatever credit there was going out started getting channeled to the state enterprises, especially the weaker ones.

This example is not to say that using the notion of a second-best world to get away from all policy reforms is a good idea. It's too often used as an excuse for saying this or that reform may not work. But I think especially when one starts thinking about the simplicity of rules, one has to be very cognizant of the fact that, in a second-best world, this transition process to simpler or different rules can be complicated. Admittedly, the transition to more complex rules can also be equally fraught and dangerous, but I think we shouldn't overstate the case for moving toward simplicity starting from where we are.

Let me wrap up with one final point that Andy makes in the context of regulation. He makes a very important argument that you need to have intelligent and pragmatic supervisors, not just have pages and pages of regulations that have to be followed to the letter, but give supervisors leeway to exercise some degree of discretion and judgment. This forces us to think hard about the incentives facing regulators, which goes back to the initial question about what it is that regulators are trying to do. Are they trying to prevent catastrophe and make sure that nothing goes wrong in the sense of a disaster, or are they at the same time trying to create enough room for financial markets to expand and prosper?

The border collie analogy is of some relevance here. Border collies initially are not very good at catching Frisbees. Practice makes them perfect. But once your border collie becomes very good at catching a Frisbee, it doesn't look for a better deal—another household that's going to offer it more food. Unfortunately, bank supervisors cannot be counted on to be quite as faithful to the institutions they work for. Once you get bank supervisors who are very experienced, who can exercise judgment and discretion, well there are many banks and financial institutions that are going to lure them away. This has happened a lot, so I think we need to have frameworks in place that are robust to some degree of inexperience as well.

Overall, I think Andy makes an important and compelling case for simplicity. And at heart, his message is hard to argue with. Still, going from simplicity in theory to simplicity in practice is going to be difficult and make for a fraught transition, with many risks along the way.

Now that he will get a chance to implement his ideas in practice as the Bank of England prepares to take on its expanded set of responsibilities including bank regulation, I wish Andy the very best of luck.

