THE TWO CONTRIBUTIONS OF GARRISON'S *TIME AND MONEY*

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Prior to 1940, the Austrian School was known primarily for its contributions to monetary theory and business cycle research—later to be renamed macroeconomics—based on the work of Mises and especially Hayek. By 1950, the Keynesian revolution had completely displaced all other approaches to macroeconomics, and with both Mises and Hayek turning their work in other directions, the Austrian School became identified primarily with its claims that central economic planning precluded rational economic calculation. While some work has been done in Austrian macroeconomics since World War II, the bulk of the school's work has been in microeconomics. The macroeconomics that has been done has not made any significant advances on the Austrian trade cycle theory that the school was best known for in the 1930s. Garrison's *Time and Money* remedies that by picking up where Hayek left off, developing a macroeconomic model based on Austrian capital theory that provides significant insights into macroeconomic phenomena.

My title here is slightly misleading: how does one count contributions? In one sense, Garrison's *Time and Money* makes many more than two contributions, but in another way, maybe the whole book should just count as one contribution. The two contributions referred to in the title here are the book's contributions to macroeconomics and to Austrian economics, which are sufficiently distinct that they can be counted separately.

CAPITAL-BASED MACROECONOMICS

From a macroeconomic standpoint, the major, and fundamentally important, contribution of *Time and Money* is to show the necessity of taking into account the heterogeneous nature of capital in macroeconomic analysis.

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Garrison begins where Hayek (1928, 1935) left off, basing his model on Hayek's idea of a structure of production that extends from earlier stages to later stages, with different types of capital being specific to different stages. Hayek and Garrison then show how changes in the market for loanable funds leads to capital restructuring, and how changes emanating from some sources can lead to unsustainable capital structures that will inevitably require a later correction. Such changes lead to macroeconomic fluctuations. The downswings in these fluctuations are now called recessions; prior to Keynes (1936), the entire movement of upswings and downswings was studied together as the business cycle, or trade cycle.

Among the many differences between Keynes's analysis of macroeconomic fluctuations and Hayek's was that Keynes lumped all investment together whereas for Hayek, the capital structure and the investment that created it was heterogeneous, and the heterogeneity of capital was an important underlying factor in the cause of economic downturns. With the Keynesian revolution, macroeconomics consistently modeled capital as a homogeneous K, and Hayek's trade cycle theory was relegated to being viewed as an episode in the history of economics. From a historical standpoint, Garrison's *Time and Money* rehabilitates Hayek's theory of the trade cycle; but more importantly, from a theoretical standpoint, Garrison shows why one cannot fully understand the nature of macroeconomic fluctuations without taking into account the heterogeneous nature of capital.

Garrison's foundation is purely Hayekian in the way that he depicts the capital structure, but he then places Hayek's model of heterogeneous capital within a macroeconomic framework that will be familiar to any contemporary economist. The result is a significant advance beyond the Austrian business-cycle models of the 1930s. It is an advance partly because Garrison presents his analysis in a consistent and contemporary framework, making it easily understandable to the current generation of macroeconomists, and partly because he illustrates so clearly how the fact that capital is heterogeneous affects macroeconomic phenomena. Garrison then goes on to exercise the model to show how various changes in macroeconomic conditions affect the macroeconomy, and insightfully compares his model with the Keynesian and monetarist ideas that dominated macroeconomics from the 1940s until very recently.

Garrison's model is simple, and part of its virtue lies in that fact. Because it is easy to follow, and because it is built along the lines of the most basic contemporary macro models, it convincingly shows the importance of heterogeneous capital to the understanding of macroeconomic phenomena. In one sense, it differs significantly from the increasingly mathematical contemporary macroeconomics, but in another sense, it is right at home because its basic elements—except for the all-important Hayekian capital structure—are consistent with the most elementary of contemporary macroeconomic frameworks. By looking at Garrison's construction, one can see immediately that the incorporation of heterogeneous capital into the model is essential, and one can see immediately what it adds, and why. In this sense, the simple framework is an asset. It shows as plainly as possible the most important thing that Garrison has to offer contemporary macroeconomics: the significance of capital heterogeneity to the understanding of macroeconomic phenomena.

The Austrian School

Garrison's contributions to Austrian economics can be subdivided into what he has added to Austrian macroeconomics and what he has contributed to the Austrian School more generally. In the 1930s, Hayek and Keynes were the world's two most prominent authorities on macroeconomic issues. However, as noted earlier, Austrian business cycle theory had been relegated to a component of the history of economic ideas by the Keynesian revolution. Few macroeconomists today know much if anything about Hayek's business cycle theory, thinking it to be discredited and irrelevant to macroeconomic theorizing. In some ways, Hayek's work is irrelevant, even though his ideas are not. His business cycle work was written before the Keynesian revolution, before macroeconomics was recognized by that name, and before many of the current conventions of thinking about macroeconomic ideas were developed. Thus, Hayek's ideas do not sound current, and do not fit comfortably within the bounds of current macroeconomic thinking. The same could be said of Keynes's *General Theory*, but Keynes has had the advantage that generations of economists after him have continued to refine and modernize his ideas. Now, finally, someone has done the same thing for Hayek's ideas.

Garrison's book is more than just a modernization of Hayek, though. He has taken Hayek's foundation and built upon it a macroeconomic model in a framework that fits comfortably within the bounds of what current macroeconomists will be familiar with. Thus, contemporary macroeconomists can assess the theory within the context of their own ideas, and it is easy to see what parts of Garrison's theory are consistent with mainstream macroeconomic thinking and what parts are new. And the theory is Garrison's, not Hayek's, although Garrison clearly builds on the foundation of Hayek's trade cycle theory, because Garrison extends the framework of Hayek's model so substantially. By doing so, Garrison takes the increasingly irrelevant ideas of Hayek and makes them relevant again.

In the 1930s, Hayek's trade cycle theory was the state of the art not only in Austrian economics, but in economics more generally. At a time when world events had thrust macroeconomic issues to the forefront of economics, Hayek's ideas were at the forefront of macroeconomics. However, there had been no substantial developments in Austrian macroeconomics since the 1930s, until Garrison's book. With this book, an increasingly aging Austrian macroeconomics has been rehabilitated and placed on a par with other contemporary schools of macroeconomic thought. Garrison's book is the definitive statement of Austrian macroeconomics at the beginning of the twenty-first century.

Because of its subject matter, *Time and Money* is a contribution to macroeconomics, but it also contributes to the Austrian School more generally. It is a major work which helps to advance the school. Yet it also makes a contribution because of its style and methodology. More than other schools of thought, Austrians tend to look back at their heritage in a serious way. This is understandable because Austrian economics is at odds with the mainstream in several ways. Thus, Austrian economists look back at earlier Austrians to try to analyze what is distinctly Austrian, and use that as a benchmark to evaluate how current "Austrian" work is, and in what ways it deviates from the tenets of Austrianism. From here, it is a small step to criticize contemporary work because of shortcomings that could be remedied by taking a more Austrian approach. To a certain extent, this analysis of the school's ideas in relation to the mainstream of economics is beneficial, but ultimately the school can advance only if its adherents show through their own work the merits of Austrian ideas. Garrison's book does that.

Garrison is not afraid to take parts of mainstream economics when they fit within his ideas, and his fundamental method of analysis is to build a model that will be easily recognized by mainstream economists, and to show how its distinctly Hayekian elements are crucial to understanding the model's operation, and by extension, the operation of the economy. As noted above, Garrison's key contribution in this regard is to show the importance of heterogeneous capital. From a methodological standpoint, Garrison does not defend his ideas because they are Austrian, or purport to show that this is an Austrian theory as opposed to that of some other school. Rather, he develops his model to show how the capital structure is crucial to understanding how the macroeconomy works, and how one cannot fully understand macroeconomic phenomena without understanding how they are related to underlying changes in the capital structure. Methodologically, Garrison develops his theory as an economic analysis—not an Austrian analysis—of the macroeconomy. He is concerned about showing what is true, not what is Austrian.

But Garrison's theory is an Austrian theory, as he recognizes, and to put it into context, he demonstrates within the framework of his model the similarities and differences between his ideas and those of the Keynesians and monetarists, whose ideas dominated the last half of the twentieth century. This comparison helps to show where the Austrian approach can add substantially to the understanding of the macroeconomy, but methodologically.

Garrison does this not by criticizing other approaches, but rather by showing the differences among approaches in an analytical way. Leaving the macroeconomics aside, the Austrian School could use Garrison's approach as a good example of how to work within the school to advance its ideas.

Twenty-first-Century Austrian Macroeconomics

Garrison's book is the most substantial contribution to Austrian macroeconomics in sixty years, and coming at the beginning of the twenty-first century, it is natural to look ahead to the future of Austrian macroeconomics. Garrison's book lays a foundation for further development of macroeconomics by the Austrian School, but while Garrison gives an extensive comparison of his vision of macroeconomics with other existing visions, he does not speculate on promising future developments. His work could be built on in several ways. First, he presents a very simple and aggregated model of the economy, and his model could be made richer and more complex. Garrison's simple model provides a good understanding of the fundamental forces underlying macroeconomic phenomena, but understanding these fundamental forces, it seems natural to consider a more detailed economy with various sectors, various goods (both consumer and capital) with different levels of durability, natural versus manufactured resources, and the role of services in an economy. These are some examples of possible theoretical issues that could be developed by extending Garrison's overall framework.

Second, the model has a number of empirical implications, and Austrian macroeconomics would benefit both from empirical work that related the abstract notion of stages of production to real-world capital goods, and from empirical work that differentiates the Austrian view of macroeconomics from other approaches. And though some Austrians might take issue with this idea, the model also suggests the possibility of macroeconomic forecasting. If booms are inevitably followed by busts, this is a prediction that, with the appropriate data, could enable Austrians to have a better handle on future turns in the business cycle than other schools of thought. Nothing would build the credibility of Austrian macroeconomics faster than a few insightful predictions.

Third, the international implications of Garrison's model could be developed. In a sense, one might look at the model as applying to one world economy. After all, resources come from all over the world, and for most goods, different stages of production will occur in different countries. However, there are both natural and artificial barriers to trade in the form of different currencies, tariffs and other trade restrictions, and transactions costs in the form of language and cultural differences, not to mention differences in legal institutions. There has always been a close connection between macroeconomics and international economics, and Garrison's framework would be a good one for looking at international economic issues.

Fourth, Garrison's ideas are substantial enough that they should be introduced to a wider audience of economists by follow-up articles in mainstream economics journals. Introducing Austrian macroeconomics into mainstream journals will be an uphill battle, to be sure, because macroeconomics tends to be one of the areas within economics that is most insistent on a particular methodological approach. Nonetheless, the ideas are powerful enough that, presented the right way, they are publishable in mainstream journals. Doing so would help promote both the Austrian approach to macroeconomics and the Austrian School more generally.

These are some specific ideas, but the general point is that if Austrian macroeconomics is to advance, *Time and Money* must be viewed as the first step in the development of twenty-first century Austrian macroeconomics, not the final word on the twentieth-century Austrian business cycle. Ultimately, how important this book is will be determined by the work that follows it. If the Austrian School builds on it to develop Austrian macroeconomics, it could become a turning point not just in Austrian macroeconomics, but in macroeconomics in general.

References

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