REVIEW OF *AUSTRIAN ECONOMICS, MONEY AND FINANCE*, by Thomas Mayer, Routledge, London, 2018

PHILIPP BAGUS

In *Austrian Economics, Money and Finance* Thomas Mayer offers the reader a treatise on the subject of finance from an Austrian perspective. Modern Finance was founded around 1950 and has become one of the most widespread study programs in the world. In virtually any business or economics degree of the world, students learn the basics of the Capital Asset Pricing Model or the Efficient Market Hypothesis.

The influence of Modern Finance in practice cannot be overstated. The personal relationship between banker and borrower, in which the banker knew the character and circumstances of his client is giving way to financial technology. Trust is replaced by algorithms, which are based on the theory of Modern Finance.

As Mayer shows the financial crisis can to a certain extent be blamed on the wrong teachings of modern macroeconomics and modern finance. For instance, the idea to aggregate supposedly uncorrelated loans justified the approval of loans that a traditional banker would not have approved.

Mayer offers an alternative to Modern Finance based on practical knowledge, common sense, experience and, most importantly, in Austrian theory.

The book is divided into two parts. Part one deals with money, while part two deals with finance.

The first part covers the function of money, inflation, interest rates, the money order and ends with a proposal for monetary reform.

Mayer´s discussion of the bank multipliers, which he illustrates with extensive tables, is extremely useful. It updates traditional Austrian presentations of the multiplier that focus on a system where as a starting point new reserves are deposited in the

Procesos de Mercado: Revista Europea de Economía Política
Vol. XVII, n.º 2, Otoño 2020, pp. 477 a 481

fractional reserve banking system, which only then starts to expand credit.

Today´s system starts differently. Banks unilaterally expand credit first and then look for reserves, on the interbank market (the money market) or directly at the central bank. Banks create deposits first and there is no limit for credit expansion as long as central banks are accommodative. The central bank still controls the credit expansion indirectly though, through its option to end accommodation and its influence on short-term interest rates that affect the whole yield curve. As another limit to credit expansion Mayer explains the importance of equity and equity requirements.

Mayer also discusses inflation and asset price inflation. He introduces Austrian business cycle theory, explains time preference and interest rates pointing out that they cannot be negative on a free market. He also shows how interest rates are used for the pricing of assets. He criticizes today's monetary order as an effective Public-Private-Partnership between the fractional reserve banks and the state. The state that regulates banks and provides a backstop through deposit insurance.

The reader appreciates that Mayer does not only present theory but also interesting history. He uses history to illustrate his theories and portray the evolution of our current financial system. He lies out the story of John Law, the purpose of the first central banks to finance the state, and connects his narrative with the theory of Georg Knapp and today´s chartalists. And after referring to other reform plans and a comment on the Swiss Vollgeld initiative, Mayer presents his own reform plan including a 100% reserve system and currency competition.

Part two starts with a chapter on debts and ownership where Mayer addresses the principal-agent problem and points out that investing in bonds requires a less intimate knowledge of the circumstances of the company and offers more protection than an equity investment.

Mayer is at his best when he skillfully presents the theory of modern finance and criticizes it. He explains in easy terms the Option Pricing Theory of Black and Scholes, the Capital Asset Pricing Model and the Efficient Market Hypothesis, which facilitates the use of the work as a textbook.

He then goes on to analyze the failures of the assumptions of Modern Finance. The rationality of investors is contrasted with behavioral finance theory. The idea to maximize utility from an objective expected return and quantifiable risk is also criticized. As Mayer asserts, risk is not the same as the volatility of an asset. The risk or better uncertainty of a particular investment depends on the investment objective and the time horizon of the investor, both being completely subjective. Most importantly, risk is not measurable. The assumption of a normal distribution of prices on which all modern finance is based is also wrong because market prices do not follow any distribution (and certainly no a Gaußian Normal Distribution). Markets are not efficient in the sense that they include all publicly available information, nor are markets continuous and always liquid as the Great Recession has demonstrated. The unlimited possibility to invest at a supposedly risk-free rate and the unrestricted access to loans at risk-free rates are also unrealistic, unfounded and false assumptions.

Most importantly, for Mayer, risk is the probability of missing a subjective investment goal at the end of a subjective investment horizon and not the investment´s volatility during a period. Mayer also mentions the importance of "optionality" which is also a thoroughly subjective concept.

Based on this critique Mayer can go on to show how the theory of Modern Finance contributed to the financial crisis. He also mentions the historical failure of Long Term Capital Management, when a hedge fund based on modern finance and run by Nobel laureates brought the world at the brink of an asset price meltdown. Furthermore, Mayer criticizes the concept of "value-at-risk" that provides a false sense of security and induces investors to take on excessive risks. Mayer points also to the important fact, that Modern Finance does not allow the practitioner any digression. He must follow the theory blindly. Indeed, computer programs can invest following the calculations and optimizations of Modern Finance theory. Human experience is virtually unimportant.

The most innovative chapter is his presentation of an alternative "Austrian Finance." Austrian Finance is based on subjective knowledge. Mayer criticizes behavioral finance because it is based on an objective approach to information. Both modern finance and behavioral finance believe that information is (only) objective. Modern finance believes that based on objective information actors behave rationally, while behavioral finance believes that based on objective information actors behave irrationally. Austrians argue that information is subjective and actors act subjectively rational. In fact, there are always concrete, subjective investment goals. Investing is a creative process.

Another ingredient of Mayer´s Austrian Finance theory is cost minimization, and also minimization of time. Thus, there is always a positive time preference rate and therefore positive natural interest rates. Negative interest rates are caused by government intervention and harm the profitability of banks. Mayer´s comment on negative interest rates shows the actuality of his book where he addresses the most recent problems and developments. For instance the Target2-imbalances in the Eurozone are also mentioned.

Moreover, there is declining marginal utility in Austrian Finance. The first investment is undertaken at the highest expected return. The second purchase is at the second highest expected return. Thereby, the average expected return falls, but the diversification, at the same time, reduces uncertainty stemming from possible (investment) errors.

The purpose of diversification is, therefore, to deal with error. Mayer´s Austrian Finance is completed with the concepts of dynamic disequilibrium and radical uncertainty that cannot be measured nor quantified.

Very useful is table 11.1., in which Mayer compares Austrian Finance with Modern Finance and Behavioural Finance. The didactic table works for teaching purposes. In fact, the whole book is an excellent textbook for any Austrian economists that needs to teach a course on Finance.

In the last chapter, Mayer applies his Austrian Finance to practice by portraying the pros and cons of active and passive investment, hedge fund strategies and investment horizons.

Mayer is perfectly right when he points out that a theory of finance is to investment management only what art science is to art. He emphasizes that it is a grave error to believe that the scientific knowledge of finance theory can replace practical knowledge for investment management. It is, according to Mayer, as if an art scientist believes that he can use art science to improve Da Vinci´s painting of Mona Lisa.

In sum, Mayer´s book is a major contribution to Austrian economics. It systematically and didactically sets out an Austrian theory of finance. Any serious scholar of finance and the Austrian school should read that book. Last but not least, the work is an excellent textbook to teach the subject of finance.