

MERGER WAVES AND THE AUSTRIAN BUSINESS CYCLE THEORY

JIMMY A. SARAVIA

ABSTRACT: This paper identifies merger waves as parts of Austrian-type business cycles. According to Austrian business cycle theory, when loan rates are reduced below their natural level through bank credit expansion, this falsifies the monetary calculation of capitalist-entrepreneurs, and investments are initiated that calculation showed were not profitable before the interest rate reduction. Since there are not enough resources in the economy to complete the new projects, businesses must increasingly withdraw the resources from other companies. Thus, this paper concludes that the increase in investment activity and the resulting “resource crunch” cause a merger wave that helps prolong the boom phase of the cycle. The merger wave ends when the credit expansion is not sufficient to sustain the economic boom, and the bust phase begins. Conversely, this paper concludes that if the fiduciary media do not enter the economy through the loan market to finance business investment, there is no pronounced and sustained increase in merger activity.

KEYWORDS: Austrian business cycle, merger waves, Austrian, neoclassical, behavioral

JEL CLASSIFICATION: B53, E32, G34

Jimmy Saravia (jsaravia@eafit.edu.co) is Professor, Grupo de Investigación en Banca y Finanzas, School of Economics and Finance, Center for Research in Economics and Finance (CIEF), Universidad EAFIT, Medellín, Colombia. The author would like to thank an anonymous referee and the editor of this journal for valuable comments and suggestions.

1. INTRODUCTION

One of the main puzzles in contemporary mainstream financial economics is: why are there time periods of frantic mergers and acquisitions (M&A) activity known as merger waves? While in this literature much work has been done on the causes of takeovers and restructuring activity at the firm and industry level, relatively little work has been done on the causes of economy wide merger waves. Moreover, the latter is divided in two rival camps: behavioral and neoclassical.

According to the “behavioral hypothesis” of merger waves, during bull markets investors irrationally misprice stocks across the board and rational managers, taking advantage of misperceived merger synergies, use their overvalued stock to acquire the resources of less overvalued or undervalued companies. The main proponents of this theory are Shleifer and Vishny (2003). On the other hand, the “neoclassical hypothesis” maintains that merger waves are rational responses by market participants that occur when economic shocks (economic, regulatory, or technological), which call for reorganization at the industry level, overlap with low transaction costs that take place because of the presence of high “capital liquidity.” The role of capital liquidity is to reduce the costs of reallocating the assets, thus permitting a large volume of transactions to occur in a relatively short period of time. The main proponent of the neoclassical theory is Harford (2005).

There is a growing body of empirical literature that aims to test the hypotheses of the neoclassical and behavioral schools, which has yielded mixed results. For instance, while Harford (2005) finds that during the second half of the 1990s M&A activity was clustered in certain industries which he identifies as being impacted by economic shocks, and that simultaneously there was a positive correlation between high capital liquidity and M&A activity, Gärtner and Halbheer (2009) find that the 1990s M&A wave cannot be attributed to a temporary intensification of M&A activity in a small group of industries. On the other hand, while Rhodes-Kropf et al. (2005) and Dong et al. (2006) find evidence in favor of the behavioral theory using measures of firm overvaluation, Harford (2005) presents several pieces of evidence that contradict behavioral theory. In particular, Harford finds a strong positive correlation between M&A activity financed using cash

and M&A activity financed using stock, and presents evidence that both increase during the M&A wave. Moreover he finds that, at the firm level, being a bidder in a “stock merger” increases the likelihood of being cash buyer of divisions of other companies during the M&A wave.

Now, from the Austrian perspective the causes proposed by these two schools (i.e., overvaluation of stocks or economic shocks followed by high capital liquidity which reduces transaction costs) cannot be accepted as ultimate causes of M&A waves. Although these factors may plausibly have an influence in the direction of the actual market process during an economic boom and the accompanying M&A wave, the causes of their occurrence can be explained in turn at a more basic level in the context of the Austrian business cycle theory (ABCT).

Following standard Austrian theory step by step, in this paper I identify M&A waves as parts of Austrian-type business cycles. The argument is briefly as follows. When bank credit expansion reduces loan rates below their natural level, capitalist-entrepreneurs will tend to undertake more investments than can be completed with the resources available in the economy. The initiation of these projects launches an unsustainable economic boom, and due to the escalating scarcity of resources aggravated by household overconsumption, businesses must increasingly withdraw the resources from other companies. I conclude that this increase in investment activity, together with the accompanying “resource crunch,” causes the M&A wave. If this logical deduction is correct, then the two standard theories in mainstream financial economics mentioned above are leaving out important causes of the M&A wave, such as the increase in investments and the scarcity of resources during the economic boom. Also note that in this context, the phenomenon of stock overvaluation highlighted by the behavioral school can be explained, as a result of the reduction of interest rates (when interest rates are artificially pushed downwards, asset prices will tend to artificially increase), and also as a result of the increased demand for the resources that the stocks give title to. On the other hand, the high “capital liquidity” pointed out by the neoclassical school is explained in the context of ABCT as a result of bank credit expansion.¹

¹Theoretical variations on the neoclassical and behavioral themes are provided by Jovanovic and Rousseau (2002), Rhodes-Kropf and Viswanathan (2004) and

In considering the Austrian theory of M&A waves presented in the next section, it is important to keep in mind that the entrepreneurial function in the theory is provided by the capitalist-entrepreneurs. That is, by “the speculators, promoters, investors and money lenders” who determine “the structure of the stock and commodity exchanges and of the money market” and the “allocation of capital to firms and industries.” (Mises, 1998, p. 704; Rothbard, 1991, p. 58). Moreover, there is an important difference between entrepreneurship and management. The function of the entrepreneur is “to *appraise*—to anticipate—future prices, and to allocate resources accordingly” (Rothbard, 1991, p. 66, emphasis in the original). In contrast, the managerial function is a “subsidiary service.” Thus, when in this paper it is stated that corporate managements undertake investments, it is important to bear in mind that they do so in execution of the tasks delegated to them by the capitalist-entrepreneurs (Mises, 1998, p. 703).

The rest of this paper is organized as follows: in section 2 I briefly go over the main arguments of ABCT and indicate how M&A waves rise and wane. In section 3, I provide an illustration of the theory by examining the history for the United States in the last 20 years. In particular, I draw attention to the fact that when fiduciary media entered the economy through the loan market to finance business investment, Austrian business cycles accompanied by M&A waves occurred, but that when newly created money did not enter the economy through the loan market to finance business investment, there was no pronounced and sustained spike in merger activity although stock prices and liquidity were at historic highs. I conclude in section 4 by summing up and reinterpreting some of the findings of the behavioral and neoclassical schools in light of the Austrian theory.

2. M&A WAVES AS PART OF ABCT

According to the ABCT, the business cycle is caused by a reduction of the interest rate below its natural level when newly

Gugler et al. (2012). However, since these theories are susceptible to the same critique above—namely that from the Austrian perspective the causes put forward by these theories cannot be accepted as ultimate causes of M&A waves, and that such causes in turn can be explained at a more basic level in the context of the ABCT—in the interests of brevity I do not discuss them here.

produced fiduciary media, created by the financial system, enters the economy through the loan market and falsifies the monetary calculation of capitalist-entrepreneurs and households (Mises, 1998; Hayek, 2008; Rothbard, 2009). This artificial reduction in the rates of interest has two effects which constitute the essential features of the Austrian business cycle: “malinvestment” and “overconsumption” (Salerno, 2012).

On the one hand, the artificial reduction of interest rates leads capitalist-entrepreneurs to believe that society has become thriftier and that the level of savings has increased, when in fact the interest rate is too low in comparison with society’s time preference. This in turn prompts them to overestimate the amount of resources available to invest and to begin more projects than can be finished with the available means of production. Moreover, the proportion of longer-term projects will increase relative to short-term projects as their present value will increase more due to the interest rate reduction, and as a consequence the structure of production is lengthened. This unsustainable lengthening of the structure of production constitutes the malinvestment feature of the inflationary boom. On the other hand, the fall in interest rates also falsifies households’ appraisals of their income and wealth. This comes about through what is called the “wealth effect.” As the inflationary boom proceeds and factors of production become more scarce, salaries are bid up and asset prices (such as stocks and real state) also go higher (Bagus, 2008). Thus households feel wealthier and more optimistic about their future income streams. This causes them to over-consume, save less and even go into debt as they mistakenly believe they can afford it. This constitutes the overconsumption aspect of the Austrian business cycle (Salerno, 2012).

Overconsumption aggravates even more the erroneous assessment regarding the availability of investable resources made by the capitalist-entrepreneurs, and the scarcity of all kinds of resources eventually becomes evident as prices for those resources start to soar. As businesses increase their demands from the several resource and labor markets, these ultimately become depleted and the resources, if available, of relatively lower quality and expensive. Therefore, firms must increasingly withdraw resources from other companies.

As pointed out by Klein (1999) company managements supplement their normal forms of investment (i.e., capital expenditures and

R&D) by acquiring the resources of existing firms through merger. Under normal conditions, one important reason why the latter occurs is that the acquisition of an already established firm or company division may be the best and quickest means to undertake an investment opportunity when the “capacities of the existing managerial personnel of the firm” are not sufficient to embark on the investment through the purchase of new plant and machinery, that is, through internal growth (Penrose, 1995, pp. 45–49 and 127–131). Thus, as investment activity increases in the earlier stages of the boom, it is logical to deduce that M&A activity will increase as well, and this initiates the merger wave. However, as mentioned above the economy’s resources are not sufficient to complete all the projects. Thus the question that capitalist-entrepreneurs and their managements ultimately face is: what can be done to finalize the investments or at least to continue them one more period of time? Clearly, if resources are scarce and costly, it should become easier for capitalist-entrepreneurs and firm managements to see the operating economies that can result from eliminating duplicate facilities, and consolidating the marketing, purchasing and accounting operations. On the other hand, during the boom, synergy and economy of scale stories are easier to make and back with numbers. For example, a company that increases its productive capacity may find its sales force inadequate and that synergies can be achieved by merging with another firm with a strong sales force. Thus, in order to complete the projects, one solution can be either to purchase another company or sell one’s own firm to a business that has the resources to complement your investments. In addition, this would also have the advantage of reducing the number of firms competing for the same pool of resources.

I conclude that, facing a “resource crunch,” businesses must increasingly find it advantageous to merge with other companies. Therefore, during the inflationary boom, one should expect to see both an exceptionally high demand of resources in the different markets (manifested, for example, in a very low unemployment rate and high resource prices) and an unusually high level of M&A activity. Interestingly, the increased M&A activity also explains why past economic booms have seemed to last longer than one would expect if companies could only draw their factors of production from the different resource and labor markets.

Without the possibility of extracting the necessary resources from other companies, many projects would need to halt in a relatively short period of time after their start due to a shortage of inputs. Under this scenario, many investments would quickly fail, the banks would become concerned about the quality of their loans and tighten credit standards earlier, and consequently the bust would occur much sooner. In contrast, by taking their resources from other companies through merger, capitalist-entrepreneurs and their managements can carry out their projects and postpone the bust for a while.

In this context, the economic, regulatory and technological shocks proposed by the neoclassical literature (Harford, 2005) have a role in determining in which industries the M&A wave is more pronounced. In particular, as Callahan and Garrison (2003, p. 74) have pointed out, "every bubble needs a story, which early investors can tell to later ones to justify rising asset prices," and it is clear that technological innovation, such as the internet in the 1990s and episodes of deregulation, can serve this purpose. This is not to deny that an economic, regulatory or technological shock can prompt a legitimate reallocation of assets in an industry. Austrian theory demonstrates that, in the absence of bank credit expansion, capitalist-entrepreneurs relying on sound monetary calculation would proficiently undertake the reallocation of assets over time with some occasional errors, but nothing in the way of a manic episode with a clustering of entrepreneurial error ending in an economy-wide crisis. The important point is that, in a monetary regime in which bank credit expansion is allowed, the M&A wave should be more pronounced in those industries where there is a good story to justify the high asset prices. And a convincing economic, regulatory or technological shock can provide such a narrative.

The M&A wave ends with the Austrian-type business cycle, when the credit expansion is not sufficient to sustain the economic boom, which usually occurs when central banks finally detect in their aggregate measurements that price inflation is increasing sharply. At this point the authorities have two options, to continue stimulating the economy and risking a "crack-up boom" (Mises, 1998), or tighten monetary policy and let interest rates rise again. If the latter option is chosen, the overextended financial system becomes increasingly concerned as the errors committed in the

boom become evident, credit standards are tightened and the crisis begins. As a result, consumption and investment plummet, unemployment rises and M&A activity falls.

Finally, it is important to point out that if the newly created fiduciary media do not enter the economy through the loan market to finance business investment and distort the structure of production, there is no Austrian-type boom-bust cycle. If so, there should be no pronounced and sustained spike in merger activity and the accompanying clustering of entrepreneurial error.

3. HISTORICAL ILLUSTRATION

This section provides an illustration of the Austrian M&A wave theory by examining the history of the United States in the last twenty years. During this period Austrian economists successfully identified in advance two Austrian-type business cycles developing in the U.S. economy (Thornton, 2013). Moreover, after each of the busts, Austrian economists such as Callahan and Garrison (2003) and Salerno (2012) provided detailed accounts about the two episodes as well as commentaries about the prospects for the future. Hence, in what follows I take it as a historical fact that there occurred two Austrian-type business cycles in the period under question, and therefore, my focus will be in indicating how M&A waves were a part of these boom-bust cycles.

First Business Cycle (from 1995 to 2002).

According to Callahan and Garrison (2003), the first business cycle in the relevant period occurred between 1995 and 2002. In their paper, the immediate cause of the cycle is identified as the loose monetary policy of the Fed prior to the 1996 presidential elections. Moreover, a series of crises forced the Fed to continue with its expansive monetary stance through early 2000, even though the economy was showing signs of overheating. The low interest rates and fiduciary media created by the financial system falsified the capitalist-entrepreneurs monetary calculation, which in turn started to malinvest, notably in dot-com and telecommunication companies, but also in other sectors of the economy. Figure 1

shows the high levels of net private investment during the boom.² As can be seen, net investment peaked in 2000.

Figure 1. Net Private Domestic Investment: Net Fixed Investment (A560RC1A027NBEA). Source: FRED.



The monetary stimulus also resulted in overall high stock prices, which peaked in March of 2000 (Figure 2) and through the “wealth effect” induced households to over-consume, produced a collapse in savings and an increase in household indebtedness. In particular, households reduced their personal savings rate from around 9 percent in the early 1990s to 4 percent in 1999–2000.³ Additionally, the increase in indebtedness is reflected in the increment in debt service payments as a percent of personal disposable income, which increased from 11 percent to close to 13 percent in the 1990s.⁴

² The figure presents net investment rather than gross investment given that the former is a measurement of expenditure in excess of that required to maintain the existing capital structure.

³ Personal savings rate, Federal Reserve Economic Data (FRED), Federal Reserve Bank of St. Louis, Series ID: PSAVERT.

⁴ Debt service payments as a percent of personal disposable income, Federal Reserve Economic Data (FRED), Federal Reserve Bank of St. Louis, Series ID: TDSP.

Figure 2. Wilshire 5000 Price Index. Source: FRED.

Crucially, the capital consumption and malinvestment resulted in a shortage of resources and workers in the different industries. Callahan and Garrison (2003, p. 87) draw attention to the scarcity of resources in the dot-com sector:

There were too few resources available for all of the plans formulated and funded during the boom to succeed... There were shortages of programmers, network engineers, technical managers, office space, housing for workers, and other factors of production.

Finally, Callahan and Garrison indicate that the business cycle ended when Fed tightened monetary policy in 2000 and punctured the bubble. As a result, an economic recession ensued and the 1990s boom came to an end.

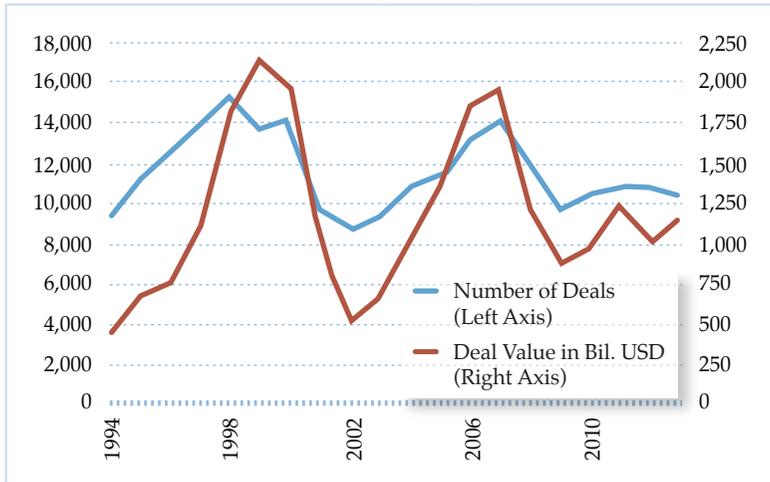
I conclude from the foregoing that as investment activity increased in the earlier stages of the boom (Figure 1), merger activity also increased as company managements supplemented their normal forms of investment (i.e. capital expenditures and R&D) by acquiring the resources of existing firms through merger. This initiated the M&A wave. Moreover, I deduce that the “resource crunch” described by Callahan and Garrison (2003) intensified the M&A wave of the late 1990s and that the increased M&A activity

allowed the boom to persist for a while for the reasons stated in section 2. Finally, the M&A wave ended when the bust set in and the errors committed during the boom became manifest to most economic actors. As a result, some of the investments lost most of their value and others had to be liquidated. The extent of the M&A wave of the late 1990s can be illustrated with the help of Table 1 and Figure 3. As can be seen, the value of announced M&A transactions tripled from \$676 billion in 1995 to \$2,140 billion in 1999 and then fell considerably to \$521 billion in 2002 once the bust set in. The wave is also reflected in the number of announced M&A transactions which increased from 11,206 in 1995 to 15,454 in 1998, and then fell to 8,670 in 2002.

Table 1. Announced Mergers & Acquisitions: USA, 1994–2013.
Source: Institute of Mergers, Acquisitions and Alliances.

Year	Number of Deals	Deal Value (in Bil. USD)
1994	9,432	422
1995	11,206	676
1996	12,620	752
1997	13,874	1,119
1998	15,454	1,817
1999	13,814	2,140
2000	14,161	1,971
2001	9,719	1,011
2002	8,670	521
2003	9,377	670
2004	10,781	1,003
2005	11,506	1,341
2006	13,184	1,855
2007	14,230	1,975
2008	11,966	1,217
2009	9,648	879
2010	10,402	982
2011	10,728	1,257
2012	10,732	987
2013	10,327	1,144

Figure 3. Announced Mergers & Acquisitions: USA, 1994–2013.
 Source: Institute of Mergers, Acquisitions and Alliances.



Second Business Cycle (from 2002 to 2009).

The second Austrian-type business cycle in the period under study occurred between 2002 and 2009, and is described in detail by Salerno (2012). The Fed reacted immediately to the recession of the early 2000s by aggressively lowering interest rates and taking measures to expand the money supply. Notably, the Fed kept the federal funds rate under 2 percent for three years from December 2001 to November 2004. More importantly, there was a sharp reduction in 30-year conventional mortgage rates and adjustable mortgage rates, which combined with loose credit standards, resulted in a housing bubble that peaked in 2006. The monetary stimulus also caused a steep ascent in stock prices which continued to go up until 2007 (Figure 2). These developments created a “wealth effect” that led households to overconsume and go into debt, as stated by Salerno (2012, p. 30):

Misled by their inflation-bloated balance sheets, households were induced to “cash out” some of their home equity and increase expenditures on consumer goods and services. In the expression of the day, people began “using their homes as ATM machines.” Households financed their

increased spending on boats, luxury autos, upscale restaurant meals, pricy vacations etc., through fixed-dollar debt.

The wealth illusion also produced a reduction in saving. The personal saving rate as a percent of disposable income fell from slightly over 5 percent in early 2002 to 2 percent in 2005.⁵

On the other hand, the extent of the malinvestments during the 2002–2009 boom-bust cycle is illustrated in Figure 1. As can be seen, after falling to \$538 billion in 2002, net private domestic investment resumed its growth and reached a peak at \$849 billion in 2006. As in the previous cycle, the boom came to an end as the Fed raised interest rates. On this occasion, the errors committed during the boom became dramatically manifest in the housing market. This had dire implications for the financial system as most of the housing investors were highly levered with bank credit and their mass defaults brought the prospect of the failure of many banks. This in turn triggered bank runs and financial instability, which prompted the federal government and the Federal Reserve to take unprecedented measures to prevent a financial collapse.

Importantly, in this second boom-bust cycle it is possible to discern the same pattern in M&A activity. As investment activity started to pick up again in 2003 (Figure 1), M&A activity also started to increase as company managements supplemented their investments in R&D and capital expenditures with mergers and acquisitions (Table 1 and Figure 3). Moreover, as the overconsumption described by Salerno (2012) and net private investment intensified, another “resource crunch” situation developed, which intensified the M&A wave. The mergers allowed the boom to continue for a while (see section 2). The M&A wave ended as the Fed tightened monetary policy, triggering the bust. As shown in Table 1 and Figure 3, the value of announced M&A transactions almost quadrupled from \$521 billion in 2002 to \$1,975 billion in 2007 and then more than halved to \$879 billion in 2009. The M&A wave is also reflected in the number of announced M&A transactions, which increased from 8,670 in 2002 to 14,230 in 2007 and then fell to 9,648 in 2009.

⁵ See footnote 4 for the sources of data on the personal savings rate.

Economic Stagnation (from 2009 to ...).

Following the financial crisis, the Fed reacted aggressively with a series of Quantitative Easing (QE) programs that have boosted the monetary base at an unprecedented rate. In addition, the Fed reduced the federal funds rate to close to zero percent in December 2008—where they have been kept and are expected to be maintained for the foreseeable future—and has taken steps to bring down long term interest rates as well (the so-called “Operation Twist”). Although these measures have succeeded in re-inflating stock market price indices which have recently reached historic highs (Figure 2), on this occasion the stimulus has failed to restore the growth of bank credit expansion to the double-digit annual growth rates observed during the last two business cycles,⁶ and net private domestic investment has remained depressed with the 2012 figure 60 percent below the 2006 high of \$849 billion (Figure 1). Thus, in the period after the financial crisis, the newly created money has not entered the economy through the loan market to finance business investment. Instead the money has been flowing to the financial markets to inflate the prices of financial assets and to finance trillion-dollar federal government deficits. Now, if the newly created money is not entering the economy through the loan market to finance business investment to distort the structure of production, there can be no boom-bust cycle of the Austrian type. Instead, Austrian theory indicates that there will be price inflation and wealth redistribution from the productive classes of society to those best placed to take advantage of the consequences of the inflation. Importantly, as pointed out in section 2 above, if there is no Austrian business cycle developing, there ought not to be a pronounced and sustained spike in M&A activity followed by a crisis that reveals a cluster of investment errors on the part of capitalist-entrepreneurs. Hence, contrary to the predictions of the neoclassical and behavioral theories of M&A waves, in a period such as the one at hand in which capitalist-entrepreneurs have temporarily lost their confidence in the reliability of economic calculation (Salerno, 2012), regime uncertainty is high (Higgs, 1997; *id.*, 2012) and consequently investment activity is low, there should be no M&A wave even though (a) stock

⁶ Total Loans and Leases, percentage changes from a year ago, Federal Reserve Economic Data (FRED), Federal Reserve Bank of St. Louis, Series ID: TOTLL.

prices are being inflated to record highs through monetary policy (conflicting with the behavioral theory), and (b) strong economic shocks and dislocations overlap with unprecedented levels of liquidity in the stock markets (opposite to the neoclassical theory).

The conclusion of no M&A wave without an Austrian-type business cycle is consistent with the history of M&A activity in the period after the financial crisis. As shown in Table 1 and Figure 3, after falling to \$879 and \$982 billion in 2009 and 2010 respectively, there was a “dead cat bounce” in the value of announced M&A activity to \$1,257 billion in 2011 before falling back down again to \$987 billion in 2012. This see-saw pattern has continued with another increase to \$1,144 billion in 2013. These figures are between 35 to 55 percent lower than the high reached in the previous cycle of \$1,975 billion in 2007, so there are no signs of a merger mania when examining the value of M&A activity after the financial crisis. Additionally, a pronounced spike in the number of announced M&A transactions has also not occurred. After falling to 9,648 deals in 2009, the number of transactions gradually increased to 10,728 in 2011, and lately it has gone down to 10,327 in 2013—this latter number still 27 percent below the 14,230 figure reached in 2007.

4. CONCLUSION

The phenomenon of the business cycle, their accompanying M&A waves and the economic impoverishment they bring are not a feature of the free market as many economists have uncritically assumed. Instead, as the Austrian school maintains, these phenomena are the result of the way in which the monetary and banking systems have been historically organized. To prevent business cycles and M&A waves, the solution would involve a reform in which the reduction of interest rates below their natural level through bank credit expansion is ruled out.

Once an Austrian-type boom-bust cycle is under way, the behavioral school is correct, I believe, in that *some* of the M&A activity will occur as managers, taking advantage of misperceived merger synergies, use their overvalued stock to acquire the resources of less overvalued or undervalued companies. However, the cause of the radical mispricing of the stocks are not some mysterious “animal spirits.” Rather, it is the result of the falsification of the

households' and capitalist-entrepreneurs' monetary calculations. This suggests that in addition to studying human behavior under conditions of uncertainty, behavioral economists should also study human behavior under *false* information about their wealth, income and investment prospects.

On the other hand, the neoclassical school has a point in indicating that economic, technological and regulatory shocks and excessive liquidity have a role in M&A waves. However, in the context of the ABCT the role of the shocks is to provide a story to justify the bubble as Callahan and Garrison (2003) have pointed out. In this sense, the bubble will tend to be more pronounced in those sectors where a more credible case for the boom can be made. Moreover, the excess liquidity is not something that just happens cyclically and endogenously in the free market. Instead, it is the result of the monetary intervention and the bank credit expansion that existing institutional arrangements allow. In another vein, the neoclassical school is too sanguine in supposing that M&A waves are an optimal response to certain disturbances and that capitalist-entrepreneurs are basically omniscient and never make mistakes. In fact, capitalist-entrepreneurs do make mistakes and under free market capitalism with sound money, entrepreneurs would still make some mistakes evenly over time. What needs explanation is why entrepreneurial mistakes tend to cluster and are identified at some points in time we call recessions. I submit that ABCT is our best explanation of why these clusters of entrepreneurial mistakes occur.

Ultimately, from the perspective of the Austrian school, the behavioral and neoclassical schools do not identify the underlying causes of M&A waves. Although the factors proposed may plausibly have an influence in the direction of the actual market process during an economic boom and the accompanying M&A wave, the causes of their occurrence can be explained a more basic level in the context of ABCT. Financial economists would do well to incorporate the insights of the Austrian school in their work; many of the puzzles of modern finance could be solved in this way.

REFERENCES

- Bagus, Philipp. 2008. "Monetary Policy as Bad Medicine: The Volatile Relationship between Business Cycles and Asset Prices," *Review of Austrian Economics* 21, no. 4: 283–300.

- Callahan, Gene, and Roger W. Garrison. 2003. "Does Austrian Business Cycle Theory Help Explain the Dot-Com Boom and Bust?" *Quarterly Journal of Austrian Economics* 6, no. 2: 67–98.
- Dong, Ming, David Hirshleifer, Scott Richardson, and Siew Hong Teoh. 2006. "Does Investor Misvaluation Drive the Takeover Market?" *Journal of Finance* 61, no. 2: 725–762.
- Gärtner, Dennis, and Daniel Halbheer. 2009. "Are There Waves in Merger Activity After All?" *International Journal of Industrial Organization* 27, no. 6: 708–718.
- Gugler, Klaus, Dennis C. Mueller, and Michael Weichselbaumer. 2012. "The Determinants of Merger Waves: An International Perspective," *International Journal of Industrial Organization* 30, no. 1: 1–15.
- Harford, Jarrad. 2005. "What Drives Merger Waves?" *Journal of Financial Economics* 77, no. 3: 529–560.
- Hayek, Friedrich A. 2008. *Prices and Production and Other Works*. Auburn, Ala.: Ludwig von Mises Institute.
- Higgs, Robert. 2012. "Regime Uncertainty: Some Clarifications." *Mises Daily*. Monday, November 19, 2012. <http://mises.org/daily/6275/Regime-Uncertainty-Some-Clarifications>.
- . 1997. "Regime Uncertainty: Why the Great Depression Lasted so Long and Why Prosperity Resumed After the War" *Independent Review* 1, no. 4: 561–590.
- Jovanovic, Boyan, and Peter L. Rousseau. 2002. "The Q-Theory of Mergers," *American Economic Review* 92, no. 2: 198–204.
- Klein, Peter G. 1999. "Entrepreneurship and Corporate Governance," *Quarterly Journal of Austrian Economics* 2, no. 2: 19–42.
- Mises, Ludwig von. 1998. *Human Action, Scholar's Edition*. Auburn, Ala.: Ludwig von Mises Institute.
- Penrose, Edith. 1995. *The Theory of the Growth of the Firm*. Oxford: Oxford University Press.
- Rhodes-Kropf, Matthew, and S. Viswanathan. 2004. "Market Valuation and Merger Waves," *Journal of Finance* 59, no. 6: 2685–2718.
- Rhodes-Kropf, Matthew, David T. Robinson, and S. Viswanathan. 2005. "Valuation Waves and Merger Activity: The Empirical Evidence," *Journal of Financial Economics* 77, no. 3: 561–603.

- Rothbard, Murray N. 1991. "The End of Socialism and the Calculation Debate Revisited," *Review of Austrian Economics* 5, no. 2: 51–76.
- . 2009. *Man, Economy, and State with Power and Market*, Scholar's Edition. Auburn, Ala.: Ludwig von Mises Institute.
- Salerno, Joseph T. 2012. "A Reformulation of Austrian Business Cycle Theory in Light of the Financial Crisis," *Quarterly Journal of Austrian Economics* 15, no. 1: 3–44.
- Shleifer, Andrei and Robert W. Vishny. 2003. "Stock Market Driven Acquisitions," *Journal of Financial Economics* 70, no. 3: 295–311.
- Thornton, Mark. 2013. "Only Austrian Theory can Explain and Expose Booms and Bubbles." *Mises Daily*. Friday, September 13, 2013. Available at <http://mises.org/daily/6533/Only-Austrian-Theory-Can-Explain-and-Expose-Booms-and-Bubbles>.