Schumpeter, the Banking System, and Innovation: Small versus Big Business

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Abstract

Joseph Schumpeter's writings on entrepreneurship and innovation have had a profound impact on economic theory and economic thought. Schumpeter initially saw the small entrepreneur as the source of innovation and economic growth within an economic system but later saw large corporations as the source of much innovation. Because large corporations, and in modern times many governments and universities as well, play such a large role in funding research and development and new innovations, much of the bank financing of innovation is done by smaller banks for small entrepreneurs and their ideas. Venture capitalists and self-financing are the other two major forms of small entrepreneur/small business financing. Meanwhile, the financial markets (stocks and bond markets) only indirectly play a role in funding the innovation of large corporations via changes in these firms' stock prices. Changes in stock prices reflect an estimate of the large firms' research and development efforts and their prospects for profitable, future innovation. Much corporate research and development is financed internally within the organization as an expense of doing business. Meanwhile, government and university funding through tax dollars and non-profit sources indirectly subsidize corporate innovation because governmental entities and universities take on risks that the private sector will often not tolerate. Yet, large corporations are often the beneficiaries of such governmental and university financing of research and development efforts. In today's times, Schumpeter would be impressed with the success of large firms regarding innovation but probably would be disappointed about the marginalization of the small entrepreneurial firm and the banking system and their diminished roles in innovation. This paper summarizes Schumpeter's views on how the banking system and financial markets could play a role in innovation and explains how a modern day monopoly capital system (Baran and Sweezy 1966) and its financial system have transformed entrepreneurship and innovation away from small business and innovation by the small entrepreneur.

Baran, Paul A, and Paul M Sweezy. 1966. *Monopoly Capital: An Essay on the American Economic and Social Order*. New York: Monthly Review Press.

JEL Codes: B26, B31, B51

1. Introduction

Those who believe that entrepreneurship leads to greater innovation, greater worker productivity, and better standards of living claim that entrepreneurship is necessary for economic growth and development. The roles that entrepreneurship and innovation play in keeping a capitalist economy dynamic and growing has been a dominant and persistent theme in most of the economics literature at least since Adam Smith's *Wealth of Nations* (1776). These were themes especially studied by and written about by the economist Joseph A. Schumpeter (1942, 1983), whom the radical economist Paul M. Sweezy knew as a friend and debated in person and in writings on capitalist entrepreneurism and innovation (Samuelson 1969 and 1972, Foster 1999 and 2011, Dockès, 2015, Potier 2015).

Schumpeter's writings on innovation and entrepreneurship have received a great deal of attention over the decades (Schumpeter 1942 and 1983, Blaug 1997 pp. 445-446). As with mainstream economics, Schumpeter once believed that the role of the **small** entrepreneur was crucial in bringing about innovation, new jobs, and rising standards of living. Additionally, the entrepreneur was also seen as an antidote to large business concentration in that established industries are sometimes usurped by upstart business and new technologies that replace older businesses and technology. According to Schumpeter, the process of "creative destruction" – or the "competing down process" as he calls it in *Business Cycles* – is one in which older industries are replaced by newer ones thanks to the decline of the older industries and their products and the rise of new products due to entrepreneurship (Schumpeter 1983). Newer industries, however, eventually become mature ones, and their products and services eventually saturate markets. If innovations appear in clusters, and then after their appearances there is a subsequent period of an innovation "drought", then an economic downturn is likely to occur. These were the findings of

Edmonson (2009) as well regarding the performance of the US economy, and he notes that large organizations play the primary role in innovation in most modern economies.

As time went by, Schumpeter[1] began to see **large** corporations as a source of innovation and rising standards of living. These organizations had the financial and industrial capacity to develop new products, although he also thought that the decline of small business as a source of innovation would eventually cause the middle classes to lose a lot of confidence in the capitalist system since small business and profitable innovation were vehicles of class mobility (Schumpeter 1942, Foster 2011). The observation that larger businesses are more successful at substantive innovation is borne out by more modern writings, some of which believe that R&D conducted by highly monopolized industries and large firms is a benefit (Kamien and Schwartz 1982, Darby and Zucker 2006) whereas others see it as a cause for alarm and reject John Kenneth Galbraith's view (1956) of beneficial innovation coming from large firms and concentrated markets (Nelson, Peck, and Kalachek 1967).

Schumpeter is thought to have had an influence on Sweezy's thinking regarding innovation, business cycles and economic growth (Foster 2014, Baran and Sweezy 2017), although Schumpeter thought that firms, whether large or small, pursued innovation with profits as a goal whereas Sweezy thought that profits or surplus, or the accumulation of profits or surplus, came first, and then firms looked for investment outlets through innovation to absorb the surplus (Schumpeter 1942, Sweezy 1942 and 1953, Foster 2011). In his textbook, Romer (2012) assumes in his models a Schumpeterian view. For Schumpeter, economic crises mostly arose due to innovation cycles wherein sometimes not enough new innovations were forthcoming to yield new

[1] Edmonson (2009) also notes this, but also sees governments and large universities as sources of innovation as well.

products and new industries so as to keep an economy growing. For Sweezy economic crises arose from a lack of surplus absorption wherein the number of new innovative products and businesses were not enough to absorb all the surplus generated in a capitalist economy, and so growth stagnated as a growing portion of surplus failed to be reinvested. In general, for Schumpeter, innovators and innovation chased after profits, whereas for Sweezy, profits pursued or looked for possible innovation as an investment outlet (Schumpeter 1942, Sweezy 1942 and 1953, Foster 2011). Samuelson (1969, 1972) and Foster (1999, 2011) have written about a congenial, public debate held at Harvard University during the 1946-47 school year between Schumpeter and Sweezy on their opposing ideas.

This paper looks at how these two economists, especially Schumpeter, saw the financing of entrepreneurship and innovation over time as the average size of firms has become larger and larger. As firm size has grown, many potential entrepreneurs are finding it more and more difficult to obtain financing for their start-ups or small business or new product ideas because so many are currently suffering from a high level of personal indebtedness. Additionally, most new product innovation is now occurring through the efforts of large corporations, an aspect of modern industry noted by Sweezy and his co-author of the book *Monopoly Capital*, Paul A. Baran. The role that banks have played in financing entrepreneurship and innovation has changed dramatically since Schumpeter's first writings on entrepreneurship, and this paper explores those changes.

2. Schumpeter on Financing Entrepreneurship and Innovation

Schumpeter was basically of the view that banks and the banking system were key institutions to any nation's economic development and advancement and not just as conduits of deposits and loans (Schumpeter 1983 and 1989, Festre and Nasica 2009, Lakomski-Laguerre 2002 and 2016). To Schumpeter, banks served the purpose of coordinating and channeling financial resources at favorable interest rates to either currently successful or potentially successful firms and at the same time denying such resources to those which were in decline or ready to go bankrupt. Banks were the “Ephors” or leaders of a capitalistic system through their financing of entrepreneurial activities which lead to economic growth but also occasional economic crises and periods of “creative destruction” when old products and markets would be replace by new ones. In this sense, the banking system assisted the market in picking the “winners and losers” of a competitive economic system by evaluating the potential and performance of business enterprises, especially the newer ones. However, banks could also succumb to imprudent decision making during financial bubbles (Schumpeter 1989, Leathers and Raines 2013). Banks were also considered active buyers and seller in the markets for financial instruments, and by doing so further helped market efficiency by helping firms with potential greater profitability in the future. Initially many merchant businesses were financed by commercial banks, but this would soon change.

With industrial capitalism, the banking system evolved to a point where investment banking became crucial to raising the capital necessary for large-scale and rapidly expanding enterprises where investment bankers underwrote new stock issuances and financed mergers and acquisitions. Such “banker capitalism” would help to finance cartels and trusts and growing industry concentration as banking became somewhat entrepreneurial itself by financing mergers and acquisitions and offering new types of investment instruments (Festre and Nasica 2009). This period also saw the rise of central banks in many nations. These economic institutions would help to bring some order and rationalization of economic resources to a sometimes chaotic market environment in which new innovation and markets were causing a certain amount of market disequilibrium (Lakomski-Laguerre 2016). Central banks would prevent systemic risk from destroying a banking system and would serve as lenders of last resort. All of these stages in banking and economic development were part of Schumpeter's thoughts on the "evolution" of an economic system as it goes through business cycles (see Chapter 3, "How the Economic System Generates Evolution," in Schumpeter 1989).

With the emergence of large scale industries and enterprises, however, the role of the entrepreneur and small business person in a nation's economy would be diminished according to Schumpeter, although national output would be enhanced with such large producers and industries being able to accomplish more than their smaller counterparts partly thanks to the financing of large banks and powerful financial markets (see Chapter 12 and 13, pages 131-155, Schumpeter 1980). These firms are also successful innovators and become the main innovators within a more mature capitalist economy. Yet the success of capitalism through large scale industry and cartels shows the seeds of its own destruction because the cartelization of markets, the destruction of many jobs and occupations through technological changes, and the near impossibility of smaller businesses being able to successfully compete against larger ones create restlessness and anger within society against capitalism. For many, class mobility is stifled to a certain extent due to the gradual decline in entrepreneurship and small business opportunities. Capitalism's success would also take away its dynamism. Therefore, Schumpeter's forecast for the future of capitalism has an overall pessimistic tone in his book, *Capitalism, Socialism, and Democracy* (1980, originally published in 1942).

3. Monopoly Capital Views

In his debate with Schumpeter, Sweezy contended that the main reason for an economy stagnating and slipping into a recession or depression was a lack of accumulation of surplus value, not a lack of new innovation or entrepreneurism (Foster 2011). According to Sweezy, it was true that entrepreneurship and innovation allowed for the absorption of economic surplus through acting as channels for the investment of surplus, but what really triggered layoffs and downturns was the lack of investment outlets for surplus garnered by the capitalists. **For Sweezy, profits chased after innovation whereas for Schumpeter, entrepreneurs through their innovations were chasing after profits**. Entrepreneurship was never a focal point for Sweezy in his writings, although he believed that business cycles were influenced by cycle of innovation (Baran and Sweezy 1966, Baran and Sweezy 2017). As soon as investment outlets began to dry up, the economy would go into a downturn (Sweezy 1942 and 1953, Foster 2011).

It was not until later that Sweezy more fully explored the implications of how banking and finance would impact a capitalist economy. Although he did not emphasize finance that much in either *Theory of Capitalist Development* (1942) or *Monopoly Capital* (with Paul Baran, 1966), Sweezy and his co-author Paul Baran (1966) noted how much modern innovation was being done by larger corporations who used research and development and innovation as means of absorbing surplus. To Baran and Sweezy, much R&D spending was "wasted" in that it was spent on new product design and packaging.[2] Substantive R&D was often carried out by the US government or research universities, especially if the outcomes of the R&D were uncertain, risky, and costly.

[2] In *Theory of Capitalist Development* (1942), pages 265-269, Sweezy claimed that the primary role of banks and finance, especially investment banking, in a capitalist economy was to help different industries toward greater concentration and monopolization. However, contrary to Hlferding (1981), Sweezy believed that "finance capital" would yield in dominance to "industrial capital" in that manufacturers, shippers and other large industrial firms would eventually be able to self-finance most of their operations and continue their dominance of markets without the assistance of financial capital. Sweezy would later see things slightly differently.

Like Schumpeter, Baran and Sweezy **saw the role of the small entrepreneur and small business person becoming increasingly unimportant in an economy dominated by large corporations and oligopolies.** Figure 1 shows the dominance of large corporations in R&D since 1990. These firms have claimed 75% to 85% of the tax credits for R&D in the US which underscores the contention of most R&D being done by larger, not smaller, organizations. Later, Sweezy began to see what he noted as the dominance by financial capital of the modern capitalist system (Sweezy 1994). That is, with the stagnation of the global economic system during the 1970s, **banking and financing became a new outlet for accumulation and the investment of surplus** because of its high profit levels and because of the need to stimulate consumption beyond its stagnant levels at that time. Deregulation of the banking sector during this time also helped to propel finance and banking as one of the premier industries of the 1980s and subsequent decades.

(Insert Figure 1 around here)

The growing importance of finance in capitalism was later picked up by other members Sweezy's intellectual legacy called the "Monthly Review School".[3] Foster and Magdoff (2009) and Foster and McChesney (2013) noted **how the "financialization" of capitalism, or how finance became ascendant as a major global industry**, gave rise to various financial bubbles that burst, especially the high tech, dot.com bubble of the late 1990s and the housing and sub-prime lending bubbles that burst in 2007. Additionally, financialization and the growing size of the consumer credit industry gave rise to excessive household borrowings in the US and elsewhere in order to allow individuals and families to maintain or reach a certain standard of living as wages

[3] A name used to note those who follow the monopoly capital school of thought as advanced by Baran and Sweezy in their 1966 book, *Monopoly Capital*. *Monthly Review* was the socialist publication started by Paul M. Sweezy in the late 1940s.

for most workers stagnated from the end of the 1970s to the present time. Figure 2 shows household and non-profit institutions serving households debt in the US as a percentage of GDP. Although lower now than what it was before the housing crisis of 2007-2008, it still stands at 80% of GDP as of the writing of this paper.

(Insert Figure 2 around here)

At the same time, **the growing indebtedness** over the last several decades of many individuals and households has perhaps **made entrepreneurship more difficult and rare** in the US. According to the US Small Business Administration (2012), most potential and small, existing entrepreneurs try to self-finance, but growing and widespread personal indebtedness has made this very challenging if not impossible for many. Lambert (forthcoming, 2019), using a monopoly capital framework of analysis, shows that such **growing indebtedness** along with other factors in the US economy since the late 1970s, including **greater industry concentration** in almost all industries, **are significant factors in explaining the decline of entrepreneurship** in the US since the late 70s. Figure 3 shows the downward trend in small business entry rates over the last four decades.

(Insert Figure 3 around here)

Since in Schumpeter's mind entrepreneurship and innovation are linked to creating new industries and jobs within a capitalist economy, **then the slowdown and decline in US entrepreneurship would be expected to show a slowdown in job creation by new firms** and an overall slowdown in job growth in the US economy, and this is what Lambert has found in his research. Please see Figures 4 and 5. The US economy, like other advanced economies, has traditionally relied upon new businesses as net, new job generators that keep an economy growing and that help to offset job losses from older and obsolete businesses as they close. However, the US economy appears to be losing this benefit of entrepreneurship as the number of new small business entries decline.

(Insert tables 4 and 5 around here)

From a monopoly capital perspective, such outcomes should not be surprising. Banking and finance have become the domain of big business and are not really that interested in financing smaller firms and entrepreneurs. More money is to be made by lending to large corporations, governments, and in the area of consumer credit. Also**, major corporations do most of the innovation in modern times, and this leaves fewer and fewer new products and ideas being developed and originated by small entrepreneurs**. **It appears that the marginalization of small entrepreneurs that Schumpeter and Sweezy saw continues.**

4. Conclusion

Schumpeter was not very sanguine about the long term prospects of capitalism. He noted the cartelization of many markets, and although this brought some benefits, it would also eventually cause a revolt against capitalism and its successes. **The era of small entrepreneurs and assistance to them by the banking system had already begun to fade toward the end of Schumpeter's career.** Innovation and new product development came to be dominated by large firms. Sweezy agreed with this assessment and noted how the US economy would continue to be dominated by large firms. Later in his career, **he foresaw how finance would become one of the dominant global industries thanks to banking deregulation, the globalization** of markets, the high profit margins on lending, and the need for credit and finance to overcome the stagnation wrought by under-consumption/overproduction of the 1970s. **Finance and lending overcame the**

stagnation by allowing more borrowing than ever before, which in turn expanded markets and increased consumption beyond certain limits. The last factor, however, **created an unmanageable debt burden** for most households, and this perhaps has led **indirectly to a decline in entrepreneurship in the US**. Additionally, since it is large corporations that do most of the innovation in the US economy now, mostly due to their huge financial resources and ability to finance most of their R&D internally, the banking and finance sectors perhaps play less and less of a role in R&D in the US as well.

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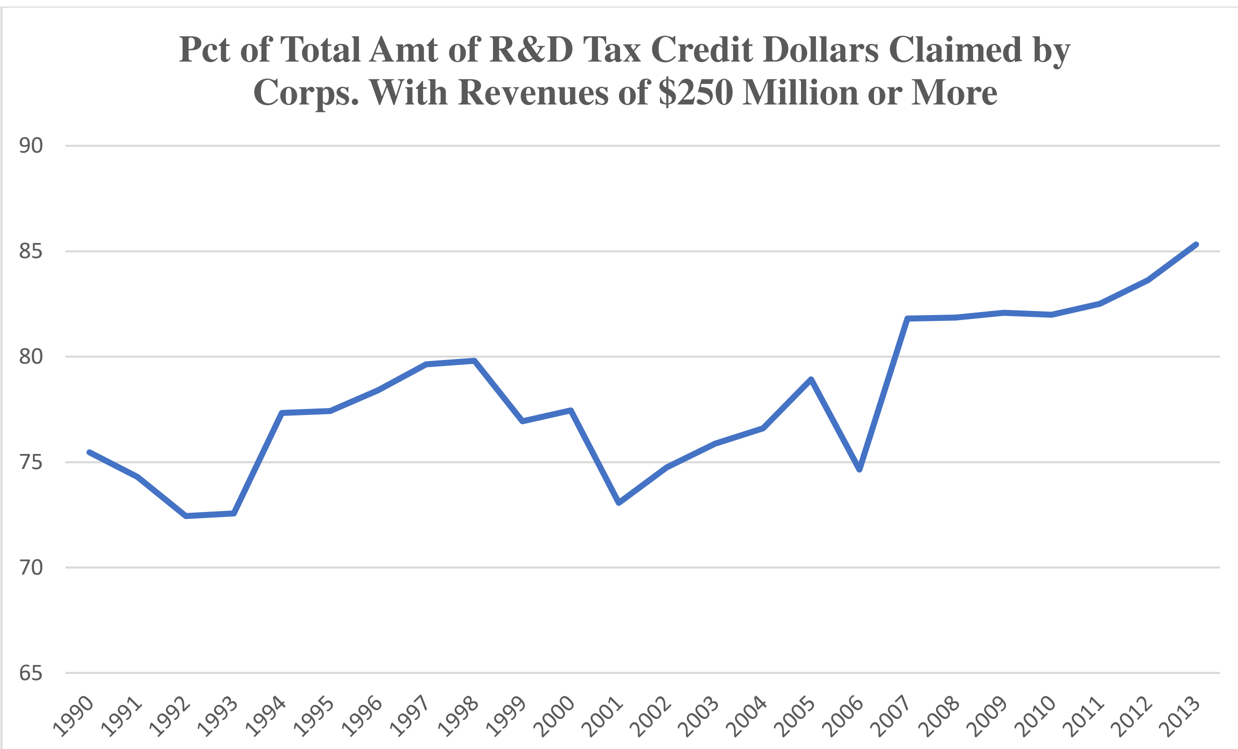
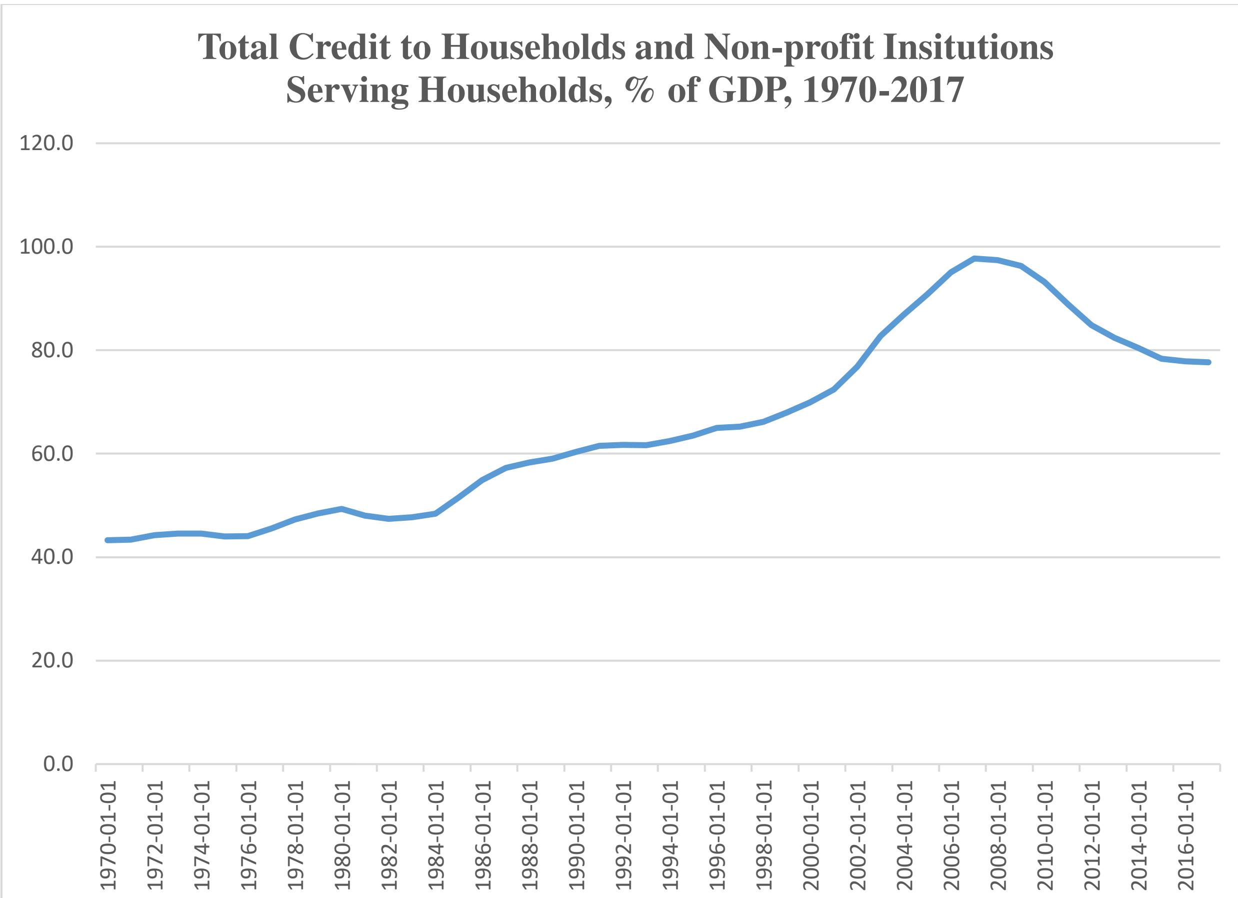
Figure 1



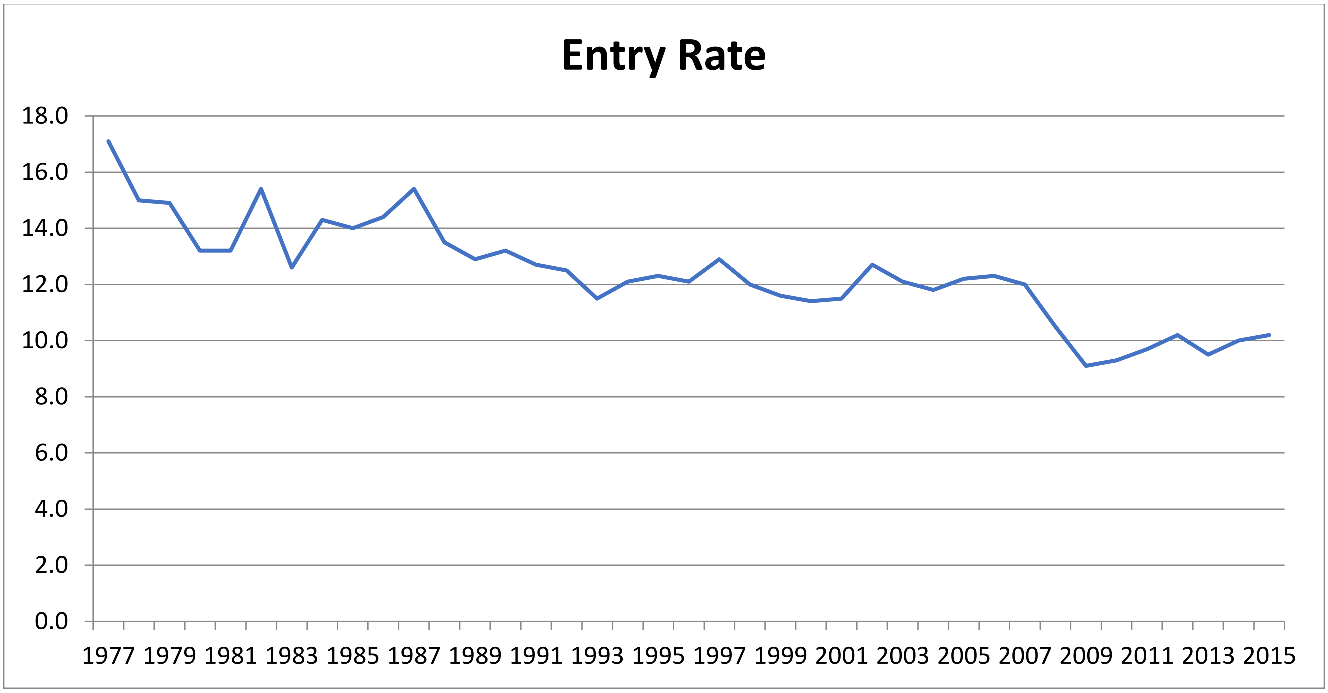
Source: US Internal Revenue Service, no date.

Figure 2



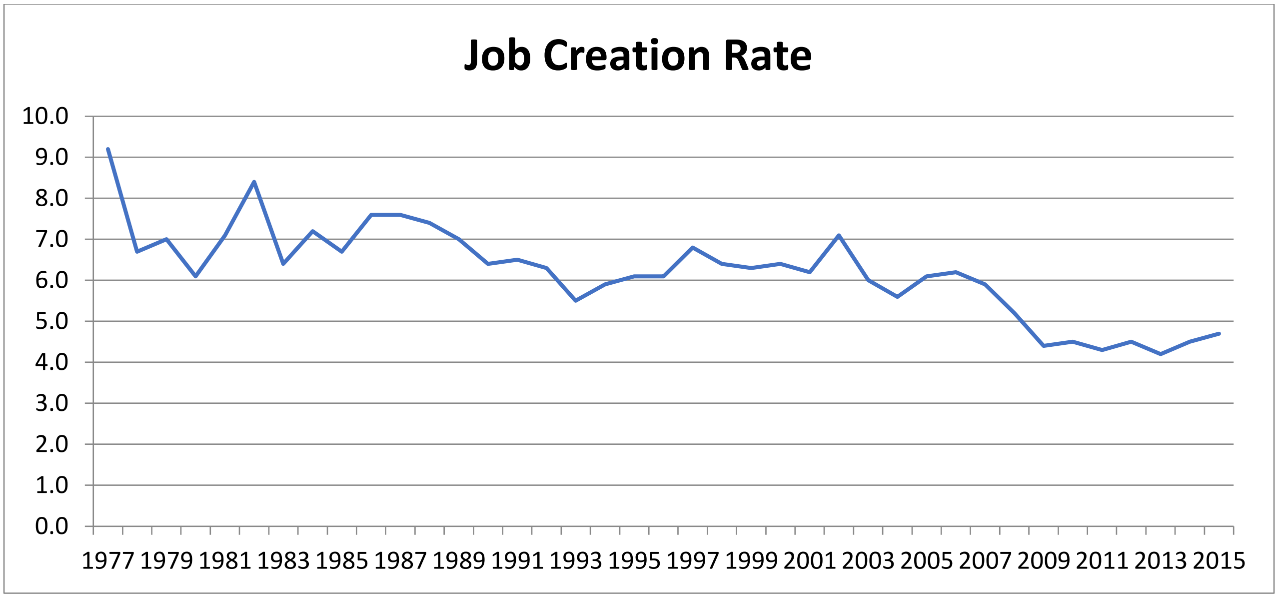
Source: Bank for International Settlements.

Figure 3 – Entry Rate of New Establishments in US Economy, 1977-2015, as percent of existing establishments for a given year.



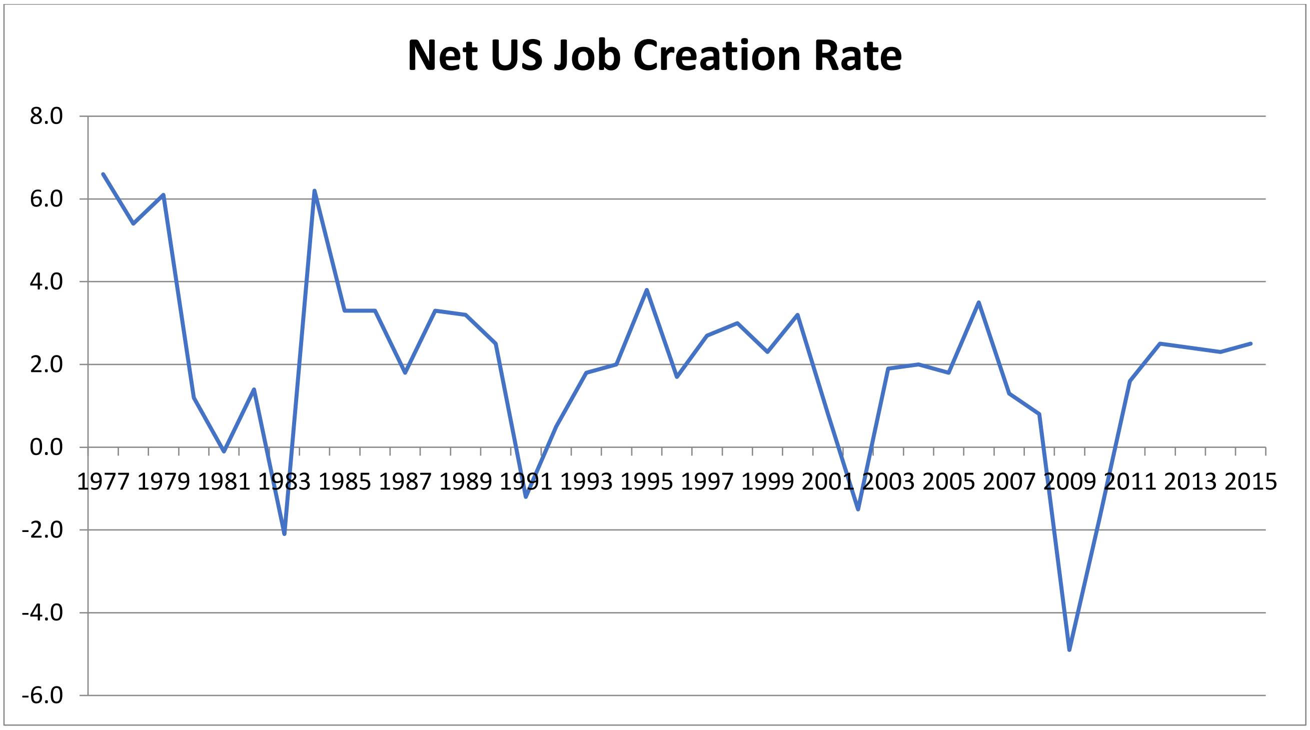
Source: US Census Bureau's *Business Dynamics Statistics, 1976-2015*

Figure 4 -- Job Creation Rate by New Firms in US Economy, 1977-2015 (new jobs as a percent of existing jobs).



Source: US Census Bureau's *Business Dynamics Statistics, 1976-2015*

Figure 5 – US Net Job Creation, 1977-2015 (net new jobs as a percent of existing jobs).



Source: US Census Bureau's *Business Dynamics Statistics, 1976-2015*