

**BUSINESSS COMPETITION AND FINANCIAL CRISIS:  
A POST KEYNESIAN APPROACH**

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Paper Prepared for **The 4th Bi-Annual Cross-Border Post Keynesian Conference:  
Financial Crisis and Reform**

**State University of New York, Buffalo State College, 1300 Elmwood Ave. Buffalo,  
NY 14222 USA, October 9-10, 2009.**

## **1. Introduction**

There are two different types of explanations for the recent financial crisis in the United States. A first group of scholars emphasize the evolution of American mortgage market and maintain that a rapid expansion of otherwise healthy mortgage market in 2004 because of too many market participants at every level and their desire to take on dangerous levels of leverage was the cause of the crisis (Barth, Li, Lu, Phumiwasana, & Yago: 2009, p 2; ). In this process oriented explanation, there is not much explanation why there were suddenly many players and they were willing to take risk. A second group of scholars focuses mainly on structural factors. For them, a rapidly evolving financial system, an eroding responsibility of lenders and borrowers, a large amount of cash flowing to the U.S. from new and emerging market economies, lack oversight by policymakers and regulators, aggressive mortgage lenders, compliant appraisers, incorrect ratings, and animal spirit of investors and business enterprises were the principal factors that contributed the bubble (Zandi: 2009, p. 2; Murphy: 2009, p. 2; Shiller: 2008). Some others even blame the media for not upholding the financial industry to scrutiny (Mason: 2009, p. viii). However, they do not provide a broader picture of how these separate factors contributed the overall crisis.

Both explanations –process-oriented and structure-oriented – do not provide the full picture of how structural variables and processes worked to produce such disastrous results not only for the U.S. economy but also for the world economy. Blaming bankers, regulators, policy-makers or consumers, or characterizing them as ‘irrational’ or ‘irresponsible’ is not a sensible explanation. Everybody was rational from his/her point of view. Actors in the process would guess the outcome, but no one was certain about when the bubble would implode.

A satisfactory explanation to this particular crisis as well as other crises requires a broader understanding of how the capitalist market economic system works. The overarching argument in this paper is that business competition, which is the very foundation of the capitalist economic system, is the key variable that brings all structure and process oriented variables mentioned above together. Business firms compete to make profits and there is an inverse relationship between competition and profitability. As profit margins decline, competitors become more aggressive and risk taking in order

not to be left behind in the process of competition. This attitude, in turn, intensifies competition. It becomes destructive with rapidly declining profit margins. A Post Keynesian economics approach is deployed to explain the genesis, evolution as well as the outcome of this crisis. Such an analysis also shows the uniqueness of as well as similarity with other crises. To accomplish this task, the next section elaborates on the Post Keynesian approach to business competition, which is followed by an in-depth analysis of the origin, evolution, and outcome of the crisis by focusing on the period mainly between 1999 and 2007.

## **2. Post Keynesian Approach to Business competition**

For Post Keynesians, capitalism is an economic system that promotes creativity, initiative as well as innovation. That the capitalist market economy is demand determined is the starting point. Rather than creating its own demand, supply adapts to demand in the market. In other words, demand is not automatic. Decline in demand leads underemployment of labor and other resources (Lavoie: 2006, p. 131). As a result, saving incentives are perceived to lower investment demand by lowering spending (Holt and Pressman: 2007, p. 7).

Post Keynesians have a holistic approach to understanding of the economic system from a methodological point of view. For instance, Alfred Eichner does not solely focus on the forces operating within the oligopolistic sector in order to understand it. Instead, he examines other parts of the economic system as well such as, the competitive and oligopolistic markets, households, foreign markets and government policies (Eichner: 1976, p. 209). This holistic view is complemented with an interest on dynamic behavior of actual economic systems. As Alfred Eichner and Jan Kregel state firmly, Post Keynesian economics is “rooted in a dynamic process” and concerned with “the analysis of the economy in disequilibrium.” (Eichner and Kregel: 1975, p. 1296)

Naturally, the mode of analysis is historical which characterizes the economic system as proceeding with short-term cyclical movements around a long-term secular growth trend line. For this reason, there is a methodological distinction between the long-period and short-run analysis to understand complex and dynamic processes (Eichner: 1979a, pp. 11-6). Nevertheless, short-term and long-term positions are not independent

of each other. Dynamic historical time suggests that, short term and long term outlooks are interconnected because time is irreversible. Once a decision is made and put into practice it cannot be reversed without incurring any significant cost. What this engenders is a dynamic model that can explain the evolution of the productive structure of the economy through time (Langlois: 1993, p. 87).

Post Keynesians, according to Peter Kenyon, perceive competition as a process, not an end-state, along with the classical and Marxian theories. Competition takes place through investment and capital accumulation (Kenyon: 1979, p. 40). Eichner describes the Post Keynesian vision of business competition as follow:

In a post-Keynesian analysis, competition need involve no more than a continual effort by business firms to exploit the most profitable investment opportunities. It is only competition in this limited sense that generally prevails throughout the world – a fact that the classical economists clearly recognized (Eichner: 1979, p. 16)

Firms compete with each other on the basis of price and non-price elements to make a continuous profit (Sawyer: 1994, p. 10). This does not mean that they do not have other goals. The primary objective remains, that is, to be profitable which is essential for their survival in the market (Lee: 2002, p. 122). Unlike mainstream traditions, competition is imperfect in Post Keynesian economics (Eichner and Kregel: 1975, p. 1299).

Post Keynesians distinguish between two main forms of market in studying the dynamic and complex processes of business competition. These are competitive and oligopolistic markets (Kenyon: 1979, p. 37; Steindl: 1952, p. viii). Rather than scrapping the neoclassical theory of perfect competition entirely, Alfred Eichner suggests that it should be taken less seriously because it can still be applied to one part of the business sector (Eichner: 1976, p. x). According Eichner:

....there are two quite different types of markets, whose pricing and investment behavior vary from each other. There are the competitive markets, largely involving primary products, which are the focal point of orthodox theory, and the oligopolistic markets – dominated by large corporations and found primarily in the technologically more progressive

sectors of the economy – about which the orthodox theory is mostly silent.  
(Eichner: 1979, p. 177)

Nina Shapiro and Tracy Mott agree with him that markets can be distinguished as competitive and oligopolistic (1995, p. 36). Competitive markets are not treated monolithically, though. The non-oligopolistic subsector of the business sector consists of both polypolistic and monopolistically competitive industries. Eichner further distinguishes three different types of competitive markets in a continuum: Walrasian, Chamberlinian, and Marshallian (Eichner, 1976, p. 209). Joseph Steindl's and Nina Shapiro's analysis of working dynamics, as well as, consequences of competition in Marshallian markets serve as the bridge connecting competitive to oligopolistic markets in a dynamic way. Overall, these three market forms provide a continuum between competitive and oligopolistic markets. All of them are usually classified as competitive markets, but they are different, as explained below.

## **2.1. Competitive Markets**

According to Eichner, the competitive or non-oligopolistic business subsector consists of both polypolistic and monopolistically competitive industries (1976, p. 209). In competitive markets, there are many firms of more or less equal size and limited time horizon. The single-plant operation is intrinsic to polypoly and to monopolistic competition as well. These firms do not have a separate management and owner. Owner-entrepreneurs manage their firms and benefit immediately and directly from any increase in revenue. The marginal and average cost structure of these small firms is U-shaped. Firms act independently of one another. As demand declines which results in a reduction in capacity utilization, firms cut their prices and reduce profit margins. Those with thin profit margins disappear eventually. Their life span is shorter in general (Eichner, 1976, p. 132). Expansion of the market, in the case of growth in demand occurs through the entry of new firms because the small firms are likely to encounter diseconomies of scale, if they try to expand beyond a single plant (Eichner, 1976, p. 137). Competition on the basis of price is central in any competitive market customarily.

Eicher distinguishes three types of competitive markets: Walrasian, Chamberlinian, and Marshallian. The common characteristic of these three markets is that firms make their pricing decisions independently of one another. This feature distinguishes competitive markets from oligopolistic markets. Among these three different types of markets, regarding dissimilarity, firms are price takers in the Walrasian markets, whereas the Chamberlinian and Marshallian markets are characterized by firms with some degree of pricing power, but still make their pricing decisions independently. Furthermore, the Chamberlinian and Marshallian markets originate from quality differentiation in products. Independence is the underlying feature of competitive markets, not whether firms are price-takers or not (Eichner, 1976, p. 136).

### **2.1.1. Competition in Walrasian Markets**

In competitive markets or what Eichner calls polypoly, there are many smaller firms of more or less equal size (Tarsis, 1980, p. 10). They primarily produce similar products and have similar cost structures as well because of their comparable size (Shapiro, 2005, p. 544). Supply and demand govern prices, but business competition establishes them. There is no planning regarding investment. Firms do not have any other choice but to accept market prices. Individual firms do not have the power to change market dynamics alone, nor can they arrange alliances or cartels amongst themselves, given that there are many competitors. The only adjustment they can make is to increase the volume of their products and sell them in the market for a set price.

Competition in the Walrasian markets is similar to perfect competition, if two conditions are fulfilled. In the first place, sellers should sell their products to one or few buyers that can speculate on prices. A network of middlemen, a monopsonist or very few oligopolistic buyers can increase their purchases when they think that the current market price is low. They can also stop buying and use their accumulated inventories when they have reason to believe that the current product price is high (Eichner, 1976, p. 134). Secondly, market entry should be easy. It is very difficult to form cooperation between many firms; besides single plant firms do not have the additional capacity to respond to rising demand immediately. In the absence of these two conditions, market stability is not possible, as it is prone to consolidation in the long run.

In a way, the Walrasian competitive markets are closer to what neoclassical economists describe in standard economics textbooks, according to Eichner (1979b, p. 177). They largely involve primary products in the agricultural, raw materials, and light manufacturing sectors (Tarsis, 1980, p. 10). These sectors are already established and firms compete mainly on the basis of price, but they do not have pricing power. With more or less equal size and similar cost structures, firms do not distinguish their products on the basis of qualitative differences. As a result, price competition among many small producers makes each player powerless.

### **2.1.2. Competition in Chamberlinian Markets**

There are numerous small firms in the industry and these firms do not face a middleman network or monopsonists as buyers. However, they are more interested in factors other than the price being charged, in contrast to firms in the Walrasian markets. There is a shift in emphasis from price competition to quality and product competition (Chamberlin, 1961; 1950). Firms differentiate their products and compete against each other with slightly differentiated products. Chamberlin writes:

Where there is any degree of differentiation whatever, each seller has an absolute monopoly of his own product, but is subject to the competition of more or less imperfect substitutes. Since each is a monopolist and yet has competitors, we may speak of them as ‘competing monopolists’, and, with peculiar appropriateness, of the forces at work as those of ‘monopolistic competition’. (1950, p. 9)

The degree of monopoly is dependent on the degree of product differentiation. Nonetheless, the similarity of products in their functions limits the market power of monopolies, as their products are substitutes of each other and therefore compete against each other (Chamberlin, 1937, p. 572). There are many producers and their products are more or less similar. Firms in the Chamberlinian markets have some market power (Eichner, 1976, pp. 136-6). Nevertheless, they make pricing decisions independently. As a result, the market is still competitive.

### **2.1.3. Competition in Marshallian Markets**

In contrast to the existence of smaller firms of more or less the same size and similar cost structures in the the Walrasian markets, there are recognizable differences in the size and cost structure of the firms in the Marshallian markets. Accordingly, competition is different in that firms are not price takers anymore. They have limited market power and hence control over the price level (Eichner, 1976, p. 132). Nina Shapiro and Tracy Mott characterize Marshallian markets ‘imperfectly competitive industry’ (1995, p. 36). Likewise, Nai-Pew Ong calls such markets a ‘stratified industry’ whose main characteristic is that larger dominant, medium-sized, as well as, marginal firms exist side by side (1981, p. 114). Mainly new and developing industries can be an example of the Marshallian markets. But this statement does not exclude a possibility that the Marshallian markets can also exist in consolidated industries (Shapiro and Mott, 1995, p. 44). On the whole, competition is imperfect in the Marshallian markets (Hollander, 1961). Firms ‘can often exert some influence on each others’ price policy’ in large and open markets, especially in the manufacturing industry (Hague, 1958).

In the Marshallian markets, prices of products do not have any determined relation to their costs in the short term. Rather than the product’s cost or particularities of its sale, supply and demand govern prices. According Shapiro and Mott, competition between firms plays a significant role in the process of pricing:

The market prices are erratic as well as flexible, and, indeed, they are erratic because they are flexible. Their responsiveness to supply-and-demand shifts makes their levels fickle and uncertain, and when product prices are unpredictable, the luck of the draw decided which of the enterprise survive. The firms that succeed are the ones that happen to be operating in excess demand markets, and the enterprises that make it through one market period may be forced out of operation by the changes that occur in another. (1995, p. 37)

Although competition on the basis of price is the common aspect of the Walrasian and Marshallian markets, there are several recognizable differences between these two market forms. To begin with, whereas there are many smaller firms of more or less the same size in the Walrasian markets, there is a significant variation in the size of firms in the

Marshallian markets. Moreover, firms offer similar products and have similar cost structures in the former, but there is variation in the cost structure of firms in the latter. Last of all, firms do not have any pricing power (if the two above-mentioned conditions are satisfied) or very little pricing power in the Walrasian markets. By contrast, firms in the Marshallian markets have relatively significant market power owing to their differential cost structures and deploy it as a lethal weapon that has the capacity to alter the market structure swiftly.

Largely different from the Walrasian markets, the Marshallian markets are still evolving; winners and losers are determined at the end of destructive price competition. Competition works as a mechanism and disciplines conducts and behavior of business firms. Regarding the actual processes of business competition, Shapiro and Mott observe that larger firms initiate price wars and their pricing tactics bankrupt smaller competitors, whenever they want to grow faster than the industry in which they are operating. As smaller and less efficient firms disappear, industrial concentration becomes a reality. “The product pricing of the progressive (large) firms enlarge their market share, and because their pricing bankrupts the smallest firms, it concentrates the industry” (Shapiro and Mott, 1995, p. 44). Aggressive pricing in these markets determines the outcome.

With respect to the anatomy and internal dynamics of competition, the starting point is that demand for new and developing goods is price elastic. Aggressive price cuts attract new customers from different income groups, widening the market for products. New products compete with each other, as they compete with the old ones at the same time. Pricing has an impact on product demand as well as on competition for that demand (Shapiro and Mott, 1995, p. 44). Sonmez Atesoglu notices that firms use their market power to raise the growth rate of markup during business upswings (1997, p. 646). Similarly, Kunal Sen and Rajendra R. Vaidya observe that whenever there is an excess demand, which is the case in expanding markets because there are not many firms to supply new products and services, actual prices are higher than long-term average prices. Business firms raise their prices at this point of business cycle for the reason that they have difficulty of meeting the immediate excess demand in such markets. High profit margins attract new competitors naturally. When there are many competitors and the growth in demand for goods and services becomes stable, firms correct the deviation of

actual price from its long-run level by cutting prices in the next period (1995, p. 42; Hall and Hitch, 1939).

In complementing the larger picture painted above, Nai-Pew Ong emphasizes the existence of defensive as well as offensive pricing in a stratified industry where larger, medium-sized and marginal firms exist side by side and compete with each other. As Ong observes:

The competitive aspect of the pricing decision is revealed when we analyze how the dominant firm can reduce the total market share of all its marginal rivals through stages. This can be achieved either through the *defensive target pricing* strategy, which is aimed at depriving the marginal producers of accumulation funds necessary to keep up with market growth, or additionally, through a final *offensive target pricing* strategy, which is aimed at eliminating them altogether in a destructive price war. (1981, p. 103)

Whereas the objective of defensive pricing is to protect market share by blocking the expansion of the marginal firms progressively without eliminating them, offensive target pricing is aimed at eliminating the marginal firms by bankrupting them (Ong, 1981, pp. 103-5). Firms attempt to gain control over the price level “either through informal meetings or other quasi-legal means” (Eichner, 1976, p. 142). Nevertheless, there is always a problem of defection. Defected firms shave prices and thus high profit margins are eliminated over time. In terms of its effect on prices, Jonathan P. Goldstein maintains that mark-up decreases between the mid-expansion of the cycle and its end, as unit labor cost increases and competition becomes severe. These two factors create problems for borrowing from financial markets. This, in turn, triggers an endogenous economic crisis, bankruptcies, voluntary withdrawals, and market consolidation (1985, p. 122).

What is clear from this brief account of the dynamics of competition in the Marshallian markets is that business competition and firm behavior are not uniform or stable. Dynamic and rapid evolution is the principal feature. According to Eichner, both Walrasian (without two conditions mentioned above) and especially the Marshallian polypoly may evolve into an oligopoly “either as a result of consolidation from within or through conglomerate expansion by megacorps seeking to maintain a certain minimum

rate of growth for themselves” (1976, p. 142). In other words, especially the latter is very unstable and consolidation happens.

## **2.2. Competition in Oligopolistic Markets**

As discussed above, the Marshallian markets are not permanent. Eventually they consolidate and become oligopolistic. Firms show different market behavior and the nature of business competition changes dramatically. In oligopolistic markets, there are fewer large firms, and some small or fringe firms totally disappear. Marc Lavoie describes oligopolistic markets as follows:

Markets are dominated by a few large oligopolistic firms, around which sometimes gravitate a multitude of smaller firms that try to differentiate their product and acquire some local monopolistic power. More often than not, the large oligopolies will be price leaders, while the smaller firms adjust their cost margins to the prices set by industry leaders (2001, p. 22).

Larger firms have similar cost structures, as in the case of firms operating in the Walrasian competitive markets. A major distinguishing characteristic of the firms in the oligopolistic markets is that they have market power because of “the concentration of a large part of output in few hands.” (Steindl: 1947, p. 65) Nevertheless, monopolistic firms do not often use their power to compete on the basis of price (Lee: 1998). Put differently, price competition is not common in oligopolistic markets. There are no significant cost differentials among firms. Price competition may be destructive without any conclusive result, since firms in the oligopolistic markets have more or less similar market power. Competitors can withstand price wars, which eventually hurt all players in the market, without any clear winner or loser. Rather, price leadership develops in such markets (Shapiro and Mott: 1995, p. 43).

It does not mean that there is no competition in oligopolistic markets. Competition rather appears in different forms. According to Ingrid Rima: “Thus, the distinctive feature of oligopolistic industry is not that competition is absent or restricted, but that it takes the form of product competition which puts a premium on research and development.” (1993-4, p. 190) In fact, competition shifts from price to non-price

elements. For Eichner, the megacorp competes with other firms not on the basis of price, but through the various types of investments it undertakes.

Change in the market-position of firms over time is because of non-price competition (Eichner: 1983, pp. 138-48). Eichner and Kregel summarize the nature of competition in oligopolistic markets in the following words: "...competition is focused around investment, or discretionary expenditures, rather than around the price variable." (Eichner & Kregel: 1975, p. 1305) For Marc Lavoie, competition is carried out mainly on the basis of product differentiation. In other words, product differentiation is the dominant form of business competition. Price competition is not ruled out, but it is very rare and yet bloody, whenever it happens. Larger firms have power and hence control over their market environment. In case of price competition, firms with high cost structures are driven out of the market in the face of difficulties of financing research and development efforts to offer new and innovative products (Lavoie: 2001, p. 27).

Overall, competition in competitive as well as oligopolistic markets produces market instability. Shapiro summarizes as follow:

Post Keynesians highlight the shortcomings of markets and the competition that regulates them. For them, as for Keynes, the competition of markets does not make them self-adjusting. It does not keep the demand for their products in line with the supply, or the supply in line with the labour available for its production. Labour can be unemployed, and products in excess supply, under competitive conditions also, and while the competition of firms can bring down their prices, it cannot keep up their production. Indeed, it may in fact 'ruin' them (Shapiro. 2003, p. 65).

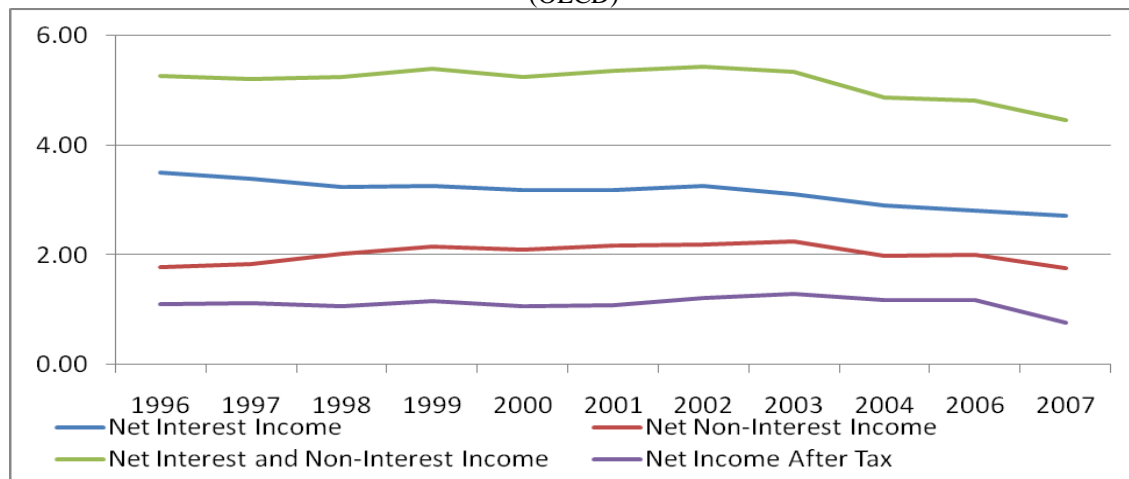
Left to itself, the capitalist market economy generates instability and business cycles because of destructive competition and waste. On the basis of this theoretical framework, one can characterize the American financial sector as Marshallian, given that it was undergoing significant structural changes such as deregulation, new actors, and new products. The next section assesses the changing nature of business competition in the financial sector by focusing on the period between 1999 and 2007. It is mainly based on articles from *The American Banker* to have a perspective on competition and the crisis the financial sector's point of view.

### 3. Business competition and Financial Crisis

Strong profitability in the financial sector in the late 1990s, deregulation, and technological innovations like the Internet were the primary factors that prepared ground for entry of new firms to the industry in the early 2000s (Matthews: 1999). With the financial modernization act, new players entered the market. With the Internet, banks did not accumulate adequate information about their borrowers, as they were closing their brick-and-mortar branches. They just wanted to give the loan quickly to boost their profitability in the short term. They went after raw size, rather than quality of loans. Similarly, regulators shifted their focus from long term soundness and stability of the financial system to profitability (Gold: 1999). Overall, the sector was Marshallian.

As Figure 1 illustrates, high interest rates in 2000 reduced bank profit margins, while stronger competition for new customers cut profits on loans given out (Gallagher: 2000, p. C1). As a result, revenues were not growing fast (Gold: 2000).

**Figure 1: U.S. Banking Profitability Indicators (As % Total Assets): 1996-2007**  
(OECD)

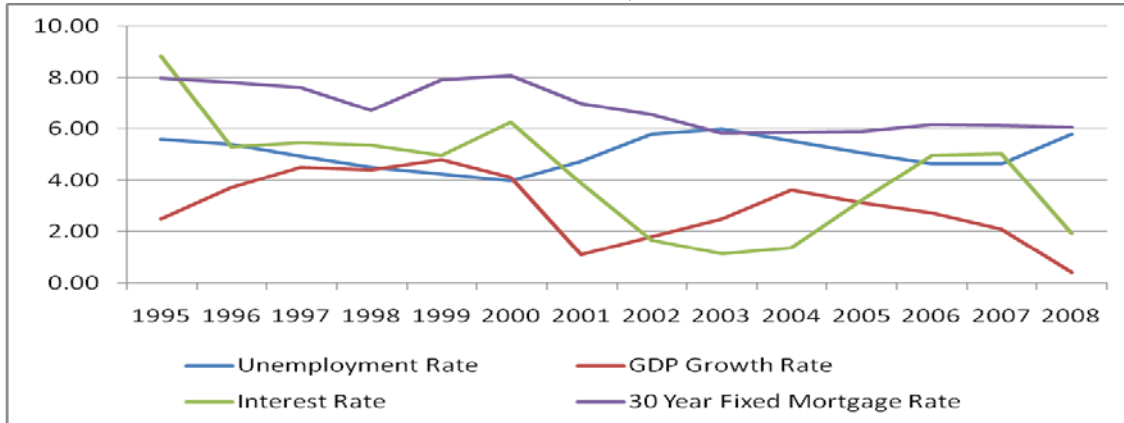


The situation did not get better in 2001 for the financial sector. In addition to the problems brought by the economic slowdown, banks faced tougher competition from other parts of finance business. For instance, financial firms such as State Farm Insurance and Merrill Lynch started acting more bank-like entities and competed with banks to attract the same cheap consumer deposits that banks depended on. Competition between these two types of institutions translated into higher interest rates

market players had to pay for in order to keep their share of the market, squeezing bank profit margins (Gallagher: 2001, p. 15). Similarly, credit unions in the U.S. changed their business models and took on much larger banking systems by offering more and similar services commercial banks offer in the early 2000s (Harrington: 2000, p. 8E). As it is clear from Figure 2, the 300-basis-point drop in the Fed funds in the first half

**Figure 2: Macroeconomic Indicators: 1995-2008**

(OECD; Board of Reserves of the Federal System; Bureau of Economic Analysis; Bureau of Labor Statistics )



of 2001 did not help profitability that much, but weaker equity markets reduced demand for commercial loans and resulted in a significant deposit growth for the banks (Rieker: 2001a; Agosta: 2002).

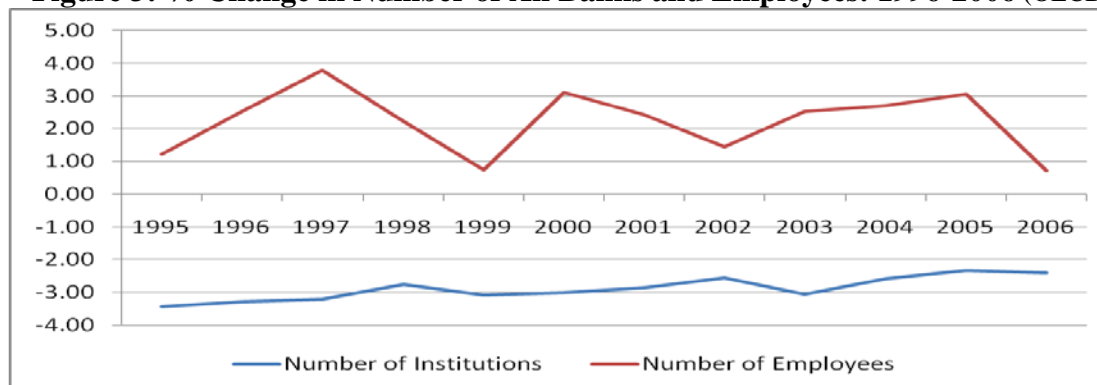
Commercial lending, capital markets, and other business lines were not delivering revenues the financial institutions targeted. With less demand from commercial side of the market, retail banking became a big revenue driver for the banks after the second half of 2001. Record-low interest rates fueled a sudden surge in refinancing. Booming refinance and mortgage lending business made the banks profitable again in 2002 (Leffler: 2002). Companies like Citigroup Inc. and Bank of America Corp. were announcing hefty profits from their consumer operations in the third quarter of 2002.

A problem of net interest margin squeeze was appearing gradually with bottoming out of decline in deposit rates and very low Fed fund rates. At this time, consumer credit quality was not an issue for all consumer loans because banks had not gone after the subprime market yet due to healthy profit margins in the prime markets.

Overall, competition was less and profitability was high throughout 2002, despite a small margin squeeze toward the end of 2002 due to low interest rates and high competition for deposit among the banks. Richard X. Bove, an analyst with Hoefler & Arnett Inc. in San Francisco, made the following observation for the first half 2002: “Banks were overearning”. (Rieker: 2002b) All financial institutions, especially small mortgage brokerages, in the mortgage business were benefiting from increasing volume of consumer loans and there were no risk because loans were directed towards prime customers.

In early 2003, big banks started to respond to competition from smaller banks, besides competition from new players, as Figure 3 demonstrates it. Small banks and

**Figure 3: % Change in Number of All Banks and Employees: 1996-2006 (OECD)**



thrifts in recent years offered free checking accounts and the largest banks followed the suit and opened more branches to attract deposits (Boraks: 2003). In 2003 and 2004, banks started opening more and more new branches to attract more retail customers in metropolitan areas. The view represents a sharp reversal from just four years ago, when bankers shut down locations, funneled customers into cheaper grocery-store branches or pushed them to bank online and use automated teller machines. “The hunt for high-profile, high-traffic spots has pitted banks against each other and driven up land prices for prime locations.” (Svaldi: 2004, p. K-01) There was a significant reversal of the trend in comparison to the situation in 1999 and 2000. With rising interest rates in 1999, many banks decided big cuts in their home-lending staffs, as demand for such service declined around 40 percent compared to the situation in 1998 (Brockman & Hochstein 1999, p. 1). Overall, competition was healthy, but intensifying among the banks.

In mid-2003, corporate borrowing did not grow and the banks had to compete with each other to woo borrowers (American Banker Staff: 2003, p. 1). In the late 2003 and early 2004, earnings from prime mortgage lending became softer for the banks (American Banker Staff: 2004, p. 2). Not surprisingly, competition in the prime mortgage markets became intense in early 2004 (Bergquist: 2004a, p. 8). With slowing mortgage lending business, banks waited for commercial lending business picking up, but it did not happen. With softening interest rates, more mortgage lending was a norm (Davenport: 2004, p. 9). To reach individual customers, banks continued opening new branches which started competition among banks for better locations in urban areas (Stoneman: 2004, p. 6A).

In the first half of 2004, competition was eroding profit margins in fixed-rate mortgages very fast. Keith Gumbinger, the president of HSH Associates, a mortgage research firm in Pompton Plains, N.J., argued in April 2004 that pricing competition grew fierce with the slower fixed-rate environment, chewing into the margins and profits throughout the mortgage industry (Julavits: 2004, p. 1). In mid-2004, there was cut-throat competition among prime originators. With interest rates increasing, lenders maintained their production volumes, but intense pricing competition cut into gain-on-sale margins, especially in the more commoditized sectors. In other words, business competition was forcing competitors to follow the suit. While some financial firms closed offices and reduce workforce, others added more people to their sales forces and some of them, especially non-prime mortgage originators, expanded their branch networks. The market was at the turning point of entering a new phase.

Margins on nonconforming loans fell less rapidly because there was less competition in this market segment. In fact, subprime lenders' margin actually increased during the concerned period. Given that demand for nonprime mortgage was not sensitive to changes in interest rate, the non-prime companies had less difficulty maintaining origination volumes, as it is clear from Table 1. "Many lenders' adjustable-rate origination volumes got a boost as borrowers sought to get lower payments amid increases in interest rates and home prices." (Bergquist: 2004b, p. 1) With less competition in the subprime market segment, profit margins were increasing. One market observer made the following statement in August 2004: "At IndyMac,

margins on its alternative-A and jumbo loans fell 8.6% from a year earlier. By contrast, the thrift company's gain-on-sale margins on conforming loans fell 41%. And its subprime margins actually increased, by 11%.” (Bergquist: 2004b, p. 1) Subprime

**Table 1: Subprime and Securitization of Home Mortgage Originations: 1994–2006**  
(Barth, Li, Phumiwsana & Yago: 2008, p. 6)

Year	Total Originations (US\$ Billions)	Prime Market Share of Total (Percent)	Subprime Market Share of Total (Percent)	Subprime MBS Market Share of Total (Percent)	Share of Subprime MBS of Subprime Originations (Percent)
1994	773	94.0	4.5	1.4	31.6
1995	639	86.9	10.2	2.9	28.4
1996	785	83.2	12.3	4.5	36.4
1997	859	78.3	14.5	7.3	50.0
1998	1,450	84.0	10.3	5.7	55.1
1999	1,310	83.2	12.2	4.6	37.9
2000	1,048	81.5	13.2	5.3	40.5
2001	2,215	87.9	7.8	4.3	55.2
2002	2,885	88.4	7.4	4.2	57.1
2003	3,945	86.5	8.4	5.1	61.0
2004	2,920	68.1	18.2	13.7	75.7
2005	3,120	62.4	21.3	16.3	76.3
2006	2,980	63.7	20.1	16.2	80.5

mortgages were very profitable for the banks and Angelo Mozilo, Countrywide Financial Corp. made the following statement for ARMs: “Our pay-options represent a very profitable product with high margins, floating rates, prepayment penalties, and a very stable prepayment behavior.” (Bergquist: 2005, p. 8) Although ARMs were riskier, returns were generous, making them attractive for more banks to offer, while consumers could buy a house with low income.

With increasing house values, borrowers preferred adjustable-rate loans to counteract rising purchase prices by taking advantage of low teaser rates, as shown in

**Figure 4: Home Price: 1987-2007** (Barth, Li, Phumiwsana & Yago: 2008, p. 7)

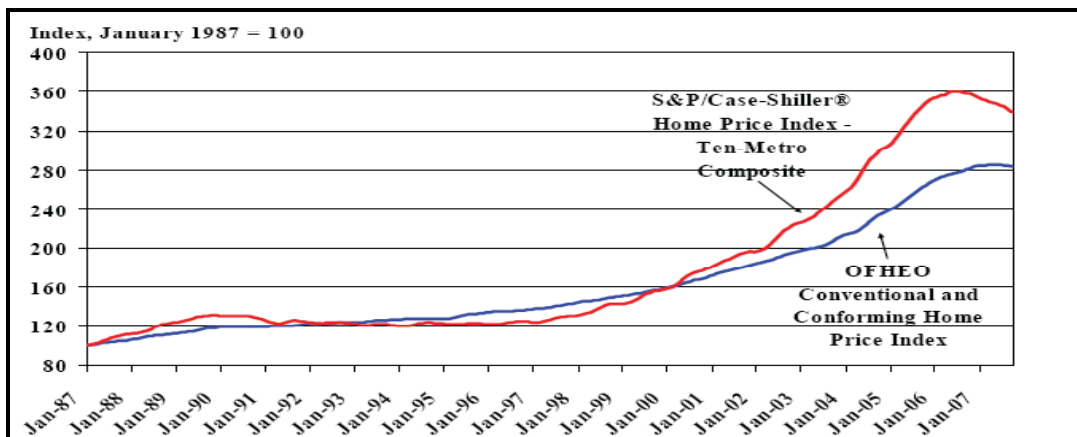


Figure 4. Adjustable-rate mortgages were popular in California, for instance, because housing prices were higher two to two-and-a-half times higher than they are in the rest of the U.S., but salaries not that much higher. Spread was health in nonconforming business lines. Profit margins were healthy in this market segment, although abundance of new products was putting pressure on margins slowly (Bergquist: 2004b, p. 1). Not surprisingly, shares of subprime lenders outperformed other financial services stocks, as well as the broader market, in 2004 (Rieker: 2005a, p. 19). In sum, competition was intense, but not destructive in the non-prime market segment, as there were still enough opportunities for the players.

In the early 2005, growth of mortgage lending business started slowing down, eating profit margins with intensifying competition, in parallel to slowing economic growth. Foreclosures were increasing as well, as Table 2 and Table 3 show. In turn, narrowing profit margins heightened competitive pressures and forced lenders to offer more aggressive teaser rates on adjustable-rate mortgages as low as one percent (Kulikowski: 2005, p. 20). The Fed in mid-2005 published a report, indicating that demand for loans in real estate markets was soaring, but in some areas like

**Table 2: Number of Prime and Nonprime Mortgage Originations and Foreclosures: 1999-2006** (Barth, Li, Phumiwsana & Yago: 2008, pp. 4-7)

Year	Total Prime Origination	Total Prime Foreclosure	Percentage	Total Subprime Origination	Total Subprime Foreclosure	Percentage
1999	5354568	211891	3.96	787420	188595	23.95
2000	3733598	168603	4.52	739749	165879	22.42
2001	8578039	270912	3.16	620945	140222	22.58
2002	11634375	240263	2.07	797625	124790	15.65
2003	15801779	221745	1.40	1143037	127123	11.12
2004	7931717	136954	1.73	1716141	176736	10.30
2005	7734776	108896	1.41	1925780	231364	12.01
2006	6446752	78065	1.21	1368706	140272	10.25

**Table 3: Prime and Nonprime Mortgage Foreclosures as % of Total Mortgage Originations: 1999-2006** (Barth, Li, Phumiwsana & Yago: 2008, pp. 4-7)

Year	Total Number of Mortgage Origination	Prime Foreclosure as % Total Origination	Subprime Closure as % Total Origination
1999	6141988	3.45	3.07
2000	4473347	3.77	3.71
2001	9198984	2.95	1.52
2002	12432000	1.93	1.00
2003	16944816	1.31	0.75
2004	9647858	1.42	1.83
2005	9660556	1.13	2.39
2006	7815458	1.00	1.79

Chicago and San Fransisco, competition had been cutting bank profit margins, despite the increased number of loans (Thomson: 2005, p. 2). One observer summarized the market as follow:

Margins are under pressure, and many banks may not have the volume to balance them. Banks will look anywhere they can to pick up a couple of pennies of earnings per share, but analysts expect many banks to fall short of consensus expectations; other banks are expected to compromise earnings quality to hit their targets (Davenport: 2005, p. 9).

In May 2005, the first profit warning came from NetBank Inc. of Alpharetta, Ga. Chairman and chief executive Douglas K. Freeman said that “Everybody was trying to compete in a pricing environment that has become completely irrational.” (Wolfe: 2005, p. 13) The issue was not whether the financial institutions were irrational or not. The main concern was to keep up with hyper competition. That becomes clear in the following quote:

But as industry players increasingly voice their own worries, they bring the debate to a new level. At the least, their insights suggest that a rollback of the revolution may be in the offing, though some executives quietly

acknowledge that so far pressure to keep up with competitors has at times trumped their better judgment (Shenn: 2005a, p. 1).

After June 2005, competition between originators became hyper and ate profit margins in hybrid adjustable-rate mortgages, particularly option adjustable-rate mortgages (ARMs) without prepayment penalties (Shenn: 2005b, p. 1). Business firms like Countrywide Financial Corp. gave a profit warning because of hyper competition. Most competition for ARMs concentrated in California and competition was extreme there (Bergquist: 2005a, p. 23). Midsize nonprime and other niche lenders were suffering less than prime ones in the aftermath of refinancing wane (Bergquist: 2005b, p. 16).

Starting from mid-2005, the nonprime market segment was under significant pressure because of intense competition, smaller loan balances, and drop in subprime volume, increased risk, and decreased profit margins (Shenn: 2005c, p. 17; Bergquist: 2005c, p. 7). Then banks moved to distressed neighbourhoods in Chicago, for instance, because larger banks had recognized that lending in them could be profitable (Kuehner-Hebert : 2005, p. 5). Overall, hyper competition started to affect profit margins more in the subprime market than those in the prime market toward the end of 2005 (Reiker: 2005b, p. 1).

When competition reduced profit margins significantly, players became tough competitors in the thinnest-margin business and went after for volume to make up the lost in margins (Bergquist: 2005d, p. 16). This triggered further competition. It required expansion and increased overhead costs. Then competition became destructive. Slowing economic growth meant less loan demand from commercial business in order to offset margin problems the banks were experiencing due to intense competition (Reiker: 2005c, p. 9).

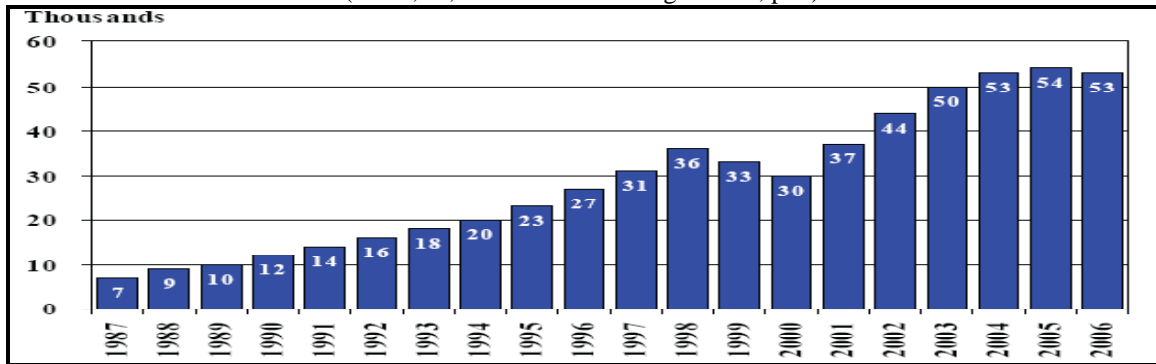
In early 2006, profit margins in nonprime mortgage lending became thinner. For instance, Countrywide Financial Corp.'s nonprime margins were cut in half in the last quarter of 2005 to 1.14 percent (Shenn: 2006a, p. 1). There were serious doubts about how these margins were calculating, indicating making up numbers during the period of hyper competition. Price competition for nonconforming mortgages was severe in the last quarter of 2005 as well as in the first quarter of 2006. Lenders, such as Netbank

Inc., revealed their losses in this market segment in early 2006 (Wolfe: 2006, p. 9). The lenders started cutting jobs as a reaction to declining margins to cut their costs during the concerned period (Shenn: 2006a, p. 1). Low margins pushed the lenders for market volume which, in turn, further cannibalized profit margins toward the last quarter of 2005 and in early 2006 (Shenn: 2006b, p. 1).

Price competition, higher borrowing costs, and lower premiums on whole-loan sales were affecting profit in the first quarter of 2006 seriously (Bergquist: 2006, p. 9). Besides, commercial lending did not take off, as the banks hoped for. Furthermore, more financial firms were forced to enter the sub-prime mortgage lending, including large Wall Street investment banks. For instance, Morgan Stanley, an investment bank, bought Saxon Capital Inc., Deutsche Bank acquired two mortgage companies, and Merrill Lynch & Co. bought Freedom Funding Corp., a U.K. company). There was a result in the number of mortgage brokerages as well as their share in the number of originations 2005 and 2004 respectively, as Figures 5 and 6 point to. The rationale for this motivation was that besides making money from securitization and trading

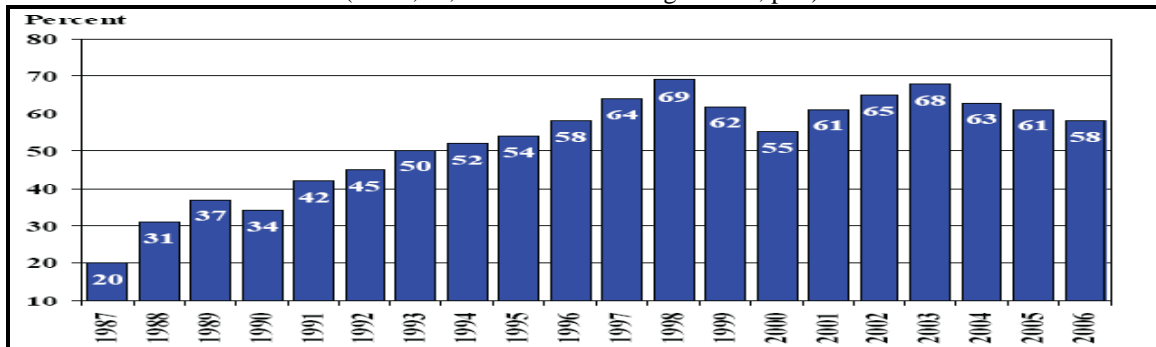
**Figure 5: Number of Mortgage Brokerages: 1987-2006**

(Barth, Li, Phumiwsana & Yago: 2008, p. 5)



**Figure 6: Share of Mortgage Brokers in Mortgage Originations**

(Barth, Li, Phumiwsana & Yago: 2008, p. 6)



mortgage assets, investment banks decided to originate mortgage lending inside. Finally, home inventories were rising, whereas home prices were falling in mid-2006 (Davenport: 2006, p. 1).

Destructive competition trimmed down profit margins in the subprime segment in the first half of 2006. In the second half, the market started slowing down and lenders' stocks began decreasing (McGeer: 2006, p. 1). Naturally, profit warnings came in the third quarter of 2006 (Berry: 2006, p. 17). Low origination volume, rising delinquency rates, and trouble securitizing loans in the second half of 2006 were the factors that imploded the bubble (Lauder: 2006, p. 1). As one observer stated in 2008, "Eventually, competition outgrew the market opportunities. Profit margins were pressured, and growth slowed." (Rizvi: 2008, p. 11) In other words, the crisis appeared when there were no more profit opportunities to be made. The fall was systemic because all financial institutions concentrated their efforts on the subprime market segment, after exhausting the opportunities in the prime market. Besides, commercial lending the banks expected did not happen to restore banks' profit margins and channel investment efforts to other sections of the economy.

#### **4. Conclusions**

This study has demonstrated that it is not enough to focus on processes or structural issues alone to understand the root cause of the crisis. Competition is the key variable around which all other variables can be organized meaningfully. Post Keynesian economics provides a better understanding of competition, as it takes a holistic approach to studying economics as a dynamic process in disequilibrium. This study has several findings. First, intensity of business competition is not directly related to number of competitors, as neoclassical economists would argue. It has to do with profitability. Profit attracts new players which reduces profits. Number of players has an indirect influence on competition.

Second, business competition evolves in stages and last stage becomes destructive not because actors involved in competition become suddenly 'irrational', but because they want to have a share from a fast shrinking profit margins. Declining profit margins, absence of new growth areas, and entrance of new players turn

competition destructive. Eventually competition overgrows market opportunities. Bankruptcies, market exits, unemployment, and economic recession are some of the consequences of destructive competition.

Third, the financial crisis was deeper and extensive in terms of its impact because all financial players progressively focused their attention to the mortgage market. Much expected commercial lending did not happen at the levels the banks waited for. In other words, the financial institutions put all their eggs in one basket. Finally, it is true that there were more foreclosures in the subprime market than those in the prime market. However, the reality is that there were foreclosures in both markets. So the problem is not 'risky lenders' or 'irresponsible borrowers'. The source of the problem was the disappearance of profits due to declining economic growth, increasing unemployment, precarious employment, low salaries (especially in California), and excessive reliance on interest rate policy to manage the economy. In terms of policy implications, this study indicates that relying solely on monetary policy makes the market unpredictable for both lenders and borrowers. A fiscal intervention is necessary for creating employment, demand, and economic stability in the long term.

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