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Editors’ Introduction

After a brief hiatus Oeconomicus—the all-student publication of the University of Missouri-Kansas City’s Economics Club—returns with a new edition (and a new editorship). We begin by congratulating our departing editor Fadhel Kaboub on a job well done over the past few years! Fadhel has recently moved on to a teaching position at Drew University as well as continuing to exercise his editorial acumen as a member of the Review of Radical Political Economics editorial board. Oeconomicus’ long tradition of providing an outlet for preparing future economists and social theorists was advanced by Fadhel’s hard work and persistence. We only hope that we can continue the fine work established under his tenure.

In our attempts to further this work, we offer our readership a number of fine articles in this year’s journal. We begin with a piece on the relatively new concept of ‘path creation’ by Xuan Pham. In her paper, Pham argues that the older notion of ‘path dependency’ left out a discussion of the important role played by human agency in the construction of an historical path. She attempts to rectify this theoretical lacuna via a novel and interesting examination of the YouTube™ and Post-It® Notes experiences. Her institutionalist inspired analysis is followed by Richard Dadzie’s application of an institutionalist perspective to the issue of land tenure systems, with special reference to Sub-Saharan Africa. This piece also provides a critique of applying the neoclassical maximization approach to what are in reality socially and culturally embedded norms and practices. The neoclassical approach ignores the complex social relations presupposed by really-existing land tenure systems, with serious consequences for public policy formation. He suggests that a more fruitful approach to this vital area of development economics is provided by the old institutionalism of Veblen and Commons.

Our next two pieces both offer a critical analysis of various aspects of social class. The article by Kurt Christensen examines the economics of wage determination and the resulting internal conflicts which exist within the working class from a classical Marxian perspective. Christensen extends the work of Howard Botwinick to account for the role of non-class factors in exacerbating internal divisions within the working class. Following this analysis of what Christensen calls the ‘labor-labor conflict’, the role of gender in wage discrimination is directly examined in the article by Megan Cornell. The latter provides an econometric analysis of rival conservative and liberal hypotheses of gender discrimination in labor markets. Thus, Cornell
Editor’s Introduction

offers some empirical content to those aspects of class which are highlighted at the theoretical level in the Christensen article.

Another econometric article, this time by Daniel Conceicao, poses and attempts to answer the question, “Do central bankers really matter in a world of inflation targeting?”, using the recent experience of Brazil as a case study. Conceicao concludes that, while not explicitly utilizing a Taylor-like monetary rule, the behavior of the Brazilian Central Bank nonetheless corresponds to what would be predicted by the use of such a rule. This article is conveniently followed by a review of Lavoie and Seccareccia’s Central Banking in the Modern World, which provides a number of critiques of the so-called ‘New Monetary Consensus’ from various contemporary heterodox monetary theorists. In this review, Yeva Nersisyan poses the question, “New monetary consensus or same old monetarism?”, coming down in favor of the latter position. Another review by Dadzie explores the complex world of international development aid as examined in Jenkins and Plowden’s Governance and Nationbuilding. We conclude with a review of a parable of heterodox economics found in the most unlikely of places—in a book by Dr. Seuss (Ph.D.) that is! Cornell takes us on a journey through the underworld of exploitation in the land of the Sneetches. The final review is followed by a call for papers for next year’s edition of the journal. We strongly encourage those who enjoyed reading this year’s volume to consider submitting a paper. Thank you!

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Five Principles of Path Creation

By Xuan Pham
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Abstract: Garud and Karnoe (2001) argue that the concept of path dependency does not account for agency and real time influences. In order to rectify this theoretical lapse they offer the alternative notion of path creation. In addition, some economists have recently become interested in analyzing the creative actions in which firms engage in their attempts to stay ahead of their competitors. Consequently, this paper examines the link between path creation and these creative actions, utilizing the examples of Post-It® Notes and YouTube™. In the course of this discussion, it advances five general characteristics—termed principles—of the path creation process.

1. Introduction
Economists have benefited significantly from the path dependency revolution of the past two decades. Through the reintroduction of the Veblenian notion of cumulative causation, path dependency theorists dispelled the neoclassical myth that no major negative consequences could result from treating history as an exogenous variable. Furthermore, the path dependency revolution provided major ammunition to the protagonists of the increasing returns debate. In spite of these important achievements over the course of the past two decades, the path dependency revolution is now slowly giving way to another revolution: the path creation revolution.

In their effort to win supporters, the path dependency theorists made a critical mistake by trading an emphasis on human agency for the impersonal forces of history. These theorists attempted to explain novelty as the cumulative result of small and impersonal historical incidents—e.g., the QWERTY keyboard, the VHS recorder, the twelve hour clockwise moving clock, and the light water reactor (David 1985; Arthur 1990). But in approaching the problem in this way, the path dependency theorists opened themselves up to a critical attack—namely, that the notion of path dependency neglects the important role played by conscious human agents in the development of the historical path actually followed. In posing the question of what role
human agents play in historical paths, economists Raghu Garud and Peter Karnoe (2001) have reformulated the insights of path dependency theory so as to take account of these “mindful deviations”. Garud and Karnoe argue that path dependency, by neglecting the role of conscious human agents, cannot explain “phenomena in the making” (p. 3). Economic outcomes can only be known post hoc. While such an analytical method may suit economic historians, economic theorists cannot operate under this condition. Society entrusts economists with the task of studying economic problems and finding solutions to them in real time. If everything is to be understood only after it has already happened, society has no need for economists—historians can easily fulfill this task with greater proficiency. Hence, economists need to know more than what and how things happened; rather, they need to know what things are happening now and how those things are unfolding. Path dependency theory does not provide economists with the necessary tools to do this.

Garud and Karnoe present an alternative to path dependency which they refer to as path creation. Path creation theory combines the notions of cumulative causation, history as an endogenous variable, and increasing returns (all basic concepts of path dependency) with human agents’ mindful deviations and real time influences to explain phenomena in the making. The theory of path creation is less than a decade old. While it has a growing base of supporters in business schools, the theory has not yet caught the attention of economists, even though they stand to benefit the most from studying it.

In recent years, there has been an explosion in the economic literature about the evolving firm and its dynamic behaviors. Many of these writers assert that the 21st century firm is not stuck in the price competition quagmire of neoclassical microeconomics. Instead, it is free to innovate, to be different, and to seize opportunities that will place it ahead of its competitors (Best 1990; Prahalad and Hamel 1990; Lazonick 1991; Teece et. al. 1997; Langlois 2006). Schumpeter called this strategy the “creative response” (1947, p. 150). Economists are very interested in learning how the creative response works, the agents involved, and what these agents do in real time. The theory of path creation is an analytical tool that can assist economists in answering these questions. Hence, I will attempt to make the connection between the creative response and path creation in the second part of this essay. In the third section, I will examine the main characteristics of path creation by way of five principles. The fourth part concludes the essay.
2. Path Creation and the Creative Response

Langlois (2006) observes three occurrences in the 21st century economy: 1) the globalization of markets and increases in population and income giving rise to thicker markets, 2) higher-bandwidth communications technology making it cheaper and easier to transmit production information to buyers, and 3) flexible manufacturing technology reducing the specificity of assets (p. 73). These events are causing firms to reassess their business strategies. On the one hand, some firms are opting for an adaptive response, in the sense of “living off accumulated capital [and] the organization’s past success” (Lazonick 1991, p. 89-90). These firms try to avoid uncertainty by behaving according to conventional business techniques. On the other hand, there are other firms who are willing to confront and overcome this uncertainty by doing things “outside the range of existing practices” (ibid., pp. 86-91; Schumpeter 1947, p. 150). In other words, the latter firms are embracing what I have called, following Schumpeter, the creative response.

The creative response is an umbrella concept containing three broadly defined types of actions: (1) building dynamic capabilities, (2) creating new products, and (3) constructing new markets or restructuring existing ones. These actions, if performed correctly at the right time and in the right place, can bring competitive advantages and economic profits to the firm. However, I must stress at the outset that this interpretation of the Schumpeterian notion of creative response is not in any way indicative of some movement toward socioeconomic progress, even though this is what Schumpeter had in mind when he first advanced this argument. Instead, I understand the term in its literal, microeconomic meaning—i.e., creative in the sense of being something that has not been done before by anyone else in a particular market or industry. The firm’s creative actions can have both positive and/or negative impacts on society’s welfare. Nonetheless, for the purposes of this paper, I am only interested in how a firm successfully carries out a creative action to yield benefits for itself.

The first type of creative action—building dynamic capabilities—has received significant attention in recent years. Teece et. al. (1997) emphasize that business success in the 21st century environment requires that the firm must be able to respond in a timely and effective manner to changes in the business environment. Consequently, it has to pursue a set of unique, firm-specific capabilities, including sustaining existing capabilities and developing new ones. If the
firm succeeds in this task, it will then be able to appropriately adapt, integrate, and reconfigure “internal and external organizational skills, resources, and functional competences to match the requirements of a changing environment” (p. 515). In addition, it also will enjoy competitive advantages over unprepared competitors.

The second type of creative action—creating new products—is another important area of study in the microeconomics of the firm. In this context, new products include the making of core products and end products. Fligstein (2001) argues that the firm produces multiple products in several different markets in order to spread its risks. Product diversification increases the survivability of the firm in case one or several of its products fail to generate sufficient profits (pp. 73–75). Theorists who study imperfect competition have long recognized that firms make products that differ in real and imagined quality to gain customer loyalty and earn monopoly profits (Robinson 1969). Furthermore, Prahalad and Hamel (1990) stress the importance to the firm of creating core products: “A dominant position in core products allows a company to shape the evolution of applications and end markets” (p. 86).

The third type of creative action—constructing new markets and restructuring existing ones—is perhaps the most difficult task for the firm to undertake. In constructing a new market, the firm must possess the capabilities to produce a product and then persuade customers that they want it. This process can be quite laborious, as I will demonstrate in the next section using the YouTube™ experience. The firm can restructure an existing market in two possible ways: a) it can offer a competitive product in terms of quality and/or price, and, b) it can seek government intervention (Fligstein 2001, pp. 67–75; Stack and Gartland 2006). Stack and Gartland have presented an interesting case study showing how beer manufacturers and wholesalers manipulated government policy to change the structure of the beer market and industry in their favor after the repeal of Prohibition.

The above brief overview of the three types of creative response creates an impression that successful results can easily be achieved by the firm. Nothing could be further from the truth. Each creative action, no matter how miniscule, is the result of many complex and deliberative interactions of one or several agents inside the firm known as entrepreneurs. At some point in time, entrepreneurs see a potentially profitable opportunity to differentiate their firm from the status quo. Consequently, they may initiate and develop a new path to produce a desired capability, product, or market outcome in order to reap the potential benefits. This is what the
theory of path creation seeks to explain—i.e., how firms move from path X to path Y by way of the creative responses of entrepreneurs. Furthermore, the theory of path creation examines these path building events in real time. For those economist interested in dynamic capabilities, competitive advantages or simply the manifestation of creative actions in general, the theory of path creation offers a potentially powerful tool of analysis.

3. **Five Principles of Path Creation**

Path creation is an analytical tool for explaining how novel events occur in real time. Entrepreneurs function in different environments and have diverse goals. Consequently, they create very different paths. Yet, I believe that all paths do share some common characteristics. Upon examining Garud and Karnoe’s path breaking article and the work of institutional economist John Fagg Foster (1981) on the process of institutional adjustment, I have found what I believe to be the five main attributes of the path creation process. I will be examining these five attributes—termed principles—in this section. To assist readers in understanding how paths are created, I will have recourse to Garud and Karnoe’s Post-It® Notes case study as well as my own YouTube™ example. Readers are referred to Garud and Karnoe for a more complete study of the Post-It® Notes innovation. As for the second example, YouTube™ is a one and a half year old internet based company that streams 100 million videos a day to users around the world. YouTube™ owes its popularity to a user friendly video player combined with an extensive social networking community known simply as the “YouTubers” (Karim 2006).

The first step in creating a path is the *Principle of Technological Determination*. This principle states that the ability to create a new path rests on the prior existence, within the community, of the technical capability to do so (Foster 1981; Sturgeon 2006). An entrepreneur may wish to create a new path, but if the technology is not there, the entrepreneur’s desire remains a dream. Path creation thus begins with the stark reminder that even though humans make their own history, they do not do so as they please. For example, in their case study, Garud and Karnoe point out that Spencer Silver deliberately mixed molecules in an unconventional manner to produce the weak adhesive used in Post-It® Notes. They argue that Silver’s discovery was not a random mistake but rather a conscious effort (pp. 2-13). Yet, they neglect to mention the fact that Silver could not have made this discovery if the polymers used in his experiments...
did not already exist at the time of his invention. The Post-It® adhesive discovery was only made possible by the state of chemistry know-how as it stood in the 1960s.

Recently, Jawed Karim, one of the three cofounders of YouTube™, gave a speech about the birth of his company to students at the University of Illinois at Urbana-Champaign. He began the speech by noting the relationship between the state of technology in 2005 and the creation of the YouTube™ video player. As he explained it to the students in attendance, “things build upon each other” (Karim 2006). The founders recombined previously existing “killer applications” and “secondary or enabling technologies” to create the YouTube™ website and video player. Karim defined a killer application as “a computer program that is so useful or desirable that it proves the value of some underlying technology, such as a gaming console, operating system, or piece of computer hardware” and a “secondary or enabling technology” as one that “end users don’t care about but [they] help your businesses” (ibid.). The founders also utilized the social networking features of previous killer applications such as LiveJournal™ (came online in 1999), HOT or NOT® (2000), Wikipedia (2001), Friendster® (2002), and Flickr™ (2004) to create YouTube’s message boards and email spamming capability. They took “tagging,” or the ability to look up contents with related keywords, from Del.icio.us (2003) to generate “related videos” lists, making it possible for users to bookmark video links remotely. Next, the founders combined these small inventions with Adobe® Macromedia Flash Player 7, a secondary technology that is already built into almost every operating system and browser, to create the YouTube™ video player (ibid.). Consequently, users can now watch videos streaming on the YouTube™ website without having to download any software. Furthermore, Karim stated that after the YouTube™ video player was created, its success would not have been guaranteed had a variety of additional secondary technologies—e.g., digital cameras, cell phone cameras, broadband internet connections, dedicated hosting bandwidth, etc.—not been available to end users. These users would have been restricted in their capabilities to capture, upload, and share video contents with each other. Consequently, the path that Karim and his cofounders forged would not have been possible prior to 2005.

The second step in creating a path is the Principle of Mindful Deviation, which states that even when the community has the technical capability to create a new path, entrepreneurs must still actively carry out the task (Garud and Karnoe 2001). The capability to do something is not the same as actually doing it. I must note that entrepreneurs are generally not the same people as
the inventors of new technologies, even though history has shown this to be the case on occasions (Schumpeter 1947, p. 152). The inventors may have done something “scientifically new”, but they often have little clue about what to do with their inventions (ibid.). In contrast, entrepreneurs are agents who have the ability to anticipate the practical usefulness of new ideas and successfully introduce them into a market context. Edith Penrose perhaps offers the best insight into what makes entrepreneurs different from other people:

The term ‘entrepreneur’…is used in a functional sense to refer to individuals or groups within the firm providing entrepreneurial services, whatever their position or occupational classification may be. Entrepreneurial services are those contributions to the operations of a firm which relate to the introduction and acceptance on behalf of the firm of new ideas, particular with respect to products, location, and significant changes in technology, to the acquisition of new managerial personnel, to fundamental changes in the administrative organization of the firm, to the raising of capital, and to the making of plans for expansion, including the choice of method of expansion (1959, p. 31).

In other words, entrepreneurs, as opposed to inventors, are the true path creators.

However, the process of establishing a new path is confronted by a number of potential obstacles. Garud and Karnoe call the process of path creation “mindful deviation” because it requires entrepreneurs to make conscious, deliberate actions. Entrepreneurs have to overcome their habits and cherished beliefs to engage in path creation—that is, they have to dismember themselves from the existing institutional structure to see “what else is out there”. Next, entrepreneurs must consciously move themselves and, in many instances, their firm onto a new path. This requires that entrepreneurs reframe their thoughts and actions around what will benefit the new path, what will advance it forward. Entrepreneurs will meet opposition and find themselves in undesirable situations because their actions will conflict with the actions of those who continue operating within the old path. Consequently, entrepreneurs must remain patient under such circumstances if they want to see their new path mature (2001, pp. 9-11).

Garud and Karnoe present an excellent account of how Silver created the path that eventually became Post-It® Notes. After creating the adhesive, Silver had to disembed himself out of the 3M institutional structure in order to realize the significance of his invention. 3M had a proud tradition of making glues that stick, while Silver had invented a glue that did not stick. Silver’s ability to see the importance of the adhesive was a critical advancement for the Post-It® Notes
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path. Silver then tried to get the glue patented, however, without success. He, along with several 3M scientists, applied the adhesive to all sorts of products—including sticking pieces of paper onto blackboards that had been coated with the glue. Success did not come until Arthur Fry had the idea of applying the adhesive to small pieces of paper to create temporary bookmarks. Even then, Silver still had to convince other people of the usefulness of Post-It® Notes, as they did not become a common office supply overnight (ibid., pp. 12-21). That path required the commitment of several entrepreneurial agents and their abilities to steer Silver and Fry’s creation in the right direction.

Similarly, the founders of YouTube™ had to move beyond what was available to them in early 2005 in terms of uploading and sharing video contents. When users, in early 2005, wanted to play video clips, they had to first download either RealPlayer® or Windows Media Player®. Next, users had to log onto the websites where the video clips were available and click on the links to download the contents. After performing these tasks, users still faced several problems. The links were often not properly titled. Thus, there was no guarantee that users had downloaded the right video clips. And even if the video clips had the right content, users were often unable to play them, since RealPlayer® or Windows Media Player® did not support some video formats. Furthermore, users could not email video clips to each other due to restrictions on mailbox size.

While we may think this video sharing process is a hassle today, it was the norm before the YouTube™ era. Thus, the founders did a significant thing when they disembedded themselves out of this existing structure, saw the possibility of creating a user-friendly method of sharing videos, and initiated a new path (Karim 2006; Rose 2006).

The next three principles are not meant to follow the first two principles chronologically, in terms of the sequential development of new paths. Instead, they should be subsumed under the second principle, being particular instances of the latter. These three principles characterize the nature of human agency in path creation.

The third attribute of path creation is the Principle of Real Time Influence, which states that all actions have real time consequences on the path in the making (Garud and Karnoe 2001). Real time influence means that the new path has to be flexible, ready to make turns and detours when necessary. Entrepreneurs must be careful in undertaking actions that will impact the new path. Agents other than the entrepreneurs directly involved can also influence the path in positive and negative ways. Therefore, entrepreneurs must maintain control over the path. Of course, I am
not arguing that entrepreneurs need to become path dictators. I am only stressing the fact that entrepreneurs, in addition to being path creators, have to be path managers as well.

As I mentioned above, Fry’s temporary bookmark idea had an immediate impact upon Silver’s path. This allowed 3M scientists to make prototypes of Post-It® Notes. When Silver gave samples to marketing specialists Nicholson and Ramey, they in turn handed the samples to CEO Lewd Lehr. Lehr gave Post-It® Notes to other CEOs to play with, who in turn continued the word-of-mouth advertisement for 3M (ibid., pp. 17-22). It is clear that a process of cumulative causation was at work in the Post-It® Notes example. However, each action had real time effects on Silver’s path, which is something that the theory of path dependency does not take into account.

The above example has shown the actions taken by Silver and others, as well as there positive consequences for the Post-It® Note on Silver’s path. In the YouTube™ case, however, the consequences of real time actions were of a negative kind. After putting their website online, the founders faced the problem of advertising their product to end users. They sought advice from the founders of HOT or NOT® and were told that “Marketing 101 says email your friends” (Karim 2006). Karim noted that this strategy, while it worked for HOT or NOT®, did not work for YouTube™. The founders called up WIRED reporters and asked to be interviewed, but no one was interested. They even put up a scandalous advertisement on Craigslist offering to pay women $100 in PayPal® money if they would upload ten videos of themselves onto the website. Karim said that the logic of this advertising strategy was simple: “What could be better than girls?” (ibid.). Apparently, he was wrong.

I believe that the founders did not really understand the secret behind path creation in the early days of the company. The founders did not realize that they could not transform other people’s paths into their own and expect success. Path creation is about innovation, and there is nothing innovative about recycling old paths. In fact, things did not turn around for YouTube™ until the founders understood that they had to stop copying other people’s paths and create their own. They revamped the website in June 2005 with the goal of making it more user-friendly. The founders added a “related video” button, provided html snippets for all videos and created an external video player so users could embed video clips onto their websites and blogs, allowing users to email videos to their friends. These creative actions paid off. YouTube was streaming 30 million videos by the end of 2005 (Karim 2006).
The fourth attribute of path creation is the *Principle of Recognized Interdependence*, which states that entrepreneurs cannot work alone; they require the assistance of others (Foster 1981). Entrepreneurs are not wholly self-sufficient individuals. They are susceptible to making mistakes and having tunnel vision. They need to interact with other people who can evaluate their (intended) actions and provide them with feedback. These outside agents may also possess creative insights that will help advance the path forward. Of course, entrepreneurs must first convince these agents to switch onto their path and become accomplices in their project (Garud and Karnoe 2001, pp. 15-17). Furthermore, entrepreneurs do not want to alienate themselves from the people who are still embedded in the existing institutional structure. (We must remember that institutional disembedding is not the same as social alienation.) The path will come to fruition only if a significant number of agents accept and switch onto it at some point. Agents are not likely to do so if entrepreneurs do not communicate with and reach out to them. The nature of path creation thus requires interactions between entrepreneurs and other members of the firm and/or community.

The fifth and final attribute of path creation is the *Principle of Minimal Dislocation* (Foster 1981). This principle states that entrepreneurs should be selective about what they “translate” to outside agents. Translate here means explaining information about a path to an outside agent in a way that s/he can understand. Successful acts of translation create a “shared space” between the entrepreneurs and outside agents (Garud and Karnoe 2001, pp. 15-17). However, it is not wise for path creators to translate everything to everyone they know. Some agents may not understand certain information about the path and give incorrect advice. If this advice is implemented, it can have serious consequences for the path. Consequently, entrepreneurs should be selective about what information they share and with whom they share it. They can divide up the information and present different pieces to the appropriate individuals (i.e., people who have the capabilities of understanding the presented information) at different times. Garud and Karnoe refer to this as the “chunking” method (ibid., p. 18). Path creators will consequently receive more constructive advice. Also, at any chosen moment, entrepreneurs can pull back, reassess received advice, and make appropriate changes to the path before interacting with outside agents again (ibid., pp. 26-28). Garud and Karnoe also advise entrepreneurs not to make sweeping changes at the encouragement of outsiders:
A key question is – How large should these deviation steps be? One answer is to keep them as small as possible to avoid an escalation of commitment yet large enough to gain meaningful feedback. Such a process embraces a “real options” approach to the navigation of the complex dynamic flow of events (ibid., p. 27).

The purpose of chunking information and periodic path reassessment is to minimize negative impacts that can permanently dislocate the path away from its creator’s intended end.

I have already mentioned that Silver did not create Post-It® Notes by himself. Silver reached out to numerous 3M employees who he thought could help him. Indeed, it was Fry who had the temporary bookmark idea. YouTube™ is perhaps an even better example. The success of this website depends on the 30 million visitors who upload and share videos with each other every month (Karim 2006). Their individual actions combine to form the enormous library of 100 million videos. The founders constantly refer to YouTube™ as “a community” and an “organic, grass root” effort, showing that they understand how much assistance end users gave and will continue giving to their website (Rose 2006). The founders did not utilize chunking extensively to generate their path. However, I believe that the reason for this fact is that they were already working as a three person team. Instances where they did engage in chunking were not successful—e.g., the “marketing tip” they received from the founders of HOT or NOT®. Fortunately, Karim and his associates had the insight to pull back and reassess their path after failing to generate attention for their website. The YouTube™ example truly does speak to the treacherous road that is path creation. Creators can never know in advance what may go wrong. Their only good bet is to maintain sufficient control over the path.

Below is a graphical summary of the five principles of path creation.
4. Conclusion

While the concept of path creation is a relatively recent addition to the microeconomics of the firm, its basic message has a much longer genealogy. The idea that human agents have control over historical outcomes in real time has been placed as the center the economic analysis by economists such as Marx, Veblen, Schumpeter, and others. The path dependency revolution made us forget about these economists and their works, however. Path creation reminds us of the significance of human agency in economic processes. We would be wise to heed this warning.

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Neoclassical versus Institutionalist Views on Land Tenure Systems: 
Implications for Economic Development

By Richard Dadzie
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Abstract: This paper addresses the institution of land tenure. Both neoclassical and institutionalist theories of production consider land as an important factor. However, their respective approaches differ in significant ways. Neoclassical economists argue that market forces will efficiently allocate land to the best users, thus market forces should prevail to ensure the efficient use of land. Alternatively, institutionalists argue that land tenure systems emanate from an interaction between the tool-using heritage of a society and the ceremonies that it has put in place in order to ensure that land is used in accordance with the society’s prosperity code. Consequently, in this paper I review some of the extant literature on land tenure systems in relation to the competing perspectives of neoclassical and institutionalist economics. I conclude with an examination of some of the implications of these two approaches for economic development, with special reference to Sub-Saharan Africa.

1. Introduction
Johnson (1972) provides us with an example of the neoclassical approach to the economic analysis of land tenure systems. In his paper, Johnson evaluates whether or not different land tenure systems facilitate the maximization of income and wealth subject to a land distribution constraint. He characterizes land tenure systems as consisting of communal, landlord-tenant or owner-cultivator relationships. Furthermore, Johnson argues that, in order for a land tenure system to facilitate wealth maximization, there must be: 1) a clear definition and allocation of property rights, 2) a method of distributing the income generated from using land, such that it creates incentives for economic agents to use land in its most-valued uses (net of transaction costs), and 3) minimal restrictions on the sale of land so as to increase the equilibrium level of investment in and attached to land. In terms of the land distribution constraint, Johnson addresses both market and non-market approaches. He concludes that, since market forces do not always
produce optimal results, income and wealth maximization from the use of land sometimes requires the utilization of other methods of allocation and distribution in order to prevent socially deleterious rent-seeking behavior. Johnson’s main point, however, is that property rights within a system of land tenure must be clearly defined and must provide certainty of tenure in order for income and wealth maximization from land to be achieved.

Alternatively, Barrows and Roth (1990) examine land tenure systems and investment in African agriculture and compare the neoclassical theories of land tenure with the available empirical evidence. They find that the standard theories used to analyze land tenure systems are often inadequate and that broader perspectives which incorporate elements of institutional economics and theories of imperfect markets should be utilized, since they provide greater insight into the behavioral responses of African farmers to different systems. Barrows and Roth further argue that the issue of whether or not individualized tenure is preferable to the evolving systems of traditional tenure, as regards certain agricultural development objectives, is an empirical question that cannot be resolved by theory alone, since the effect of the policies actually applied are to a great extent determined by their context. They charge governments to find alternatives to the neoclassical prescription of individualization by advancing policies that have as their effect the removal of impediments to the evolution of traditional systems. Finally, Barrows and Roth compare the neoclassical approach to land tenure systems with empirical evidence from Kenya, Zimbabwe and Uganda. They find that after the introduction of reforms in these countries, the private titling of land actually increased the levels of tenure insecurity amongst those who were excluded from the registration process and of landholders who lost their land to more influential parties that were able to take advantage of the registration process (Kenya) or were favored by the political authorities (Uganda).

Lastly, Stamm (1994) examines non-commercial systems of land allocation and their economic implications, using evidence from Burkina Faso to support his thesis. Stamm argues that the traditional ways by which most individuals come to possess land are through heritage, clearing (appropriating), gifting and by temporary permission. He argues that recent studies have shown that there is no difference in the allocation of the factors of production between different uses as determined by the kind of property rights held by farmers and that the productivity of a parcel of land mainly depends on its natural fertility, not on the rights of ownership. Additionally, Stamm points out that traditional institutions of land tenure are deeply rooted in
Burkinabe society and when arguments about land tenure systems are not limited by neoclassical abstractions of private ownership and land reform, valuable insights into the rationale and functioning of traditional social structures may be found which possess immense implications for the study of economic growth and development.

2. Land Tenure Systems

Land tenure systems require an understanding of the concepts of rights, interests and property. Bentsi-Enchill (1965) defines rights in the following manner: “X has a right to farm on Blackacre: 1) that X is at liberty to farm on Blackacre, 2) that others are enjoined by the system of moral and juridical relations operative within the particular community not to interfere with X’s exercise of this liberty or privilege, and 3) that persons infringing this prohibition will have “wronged” X and may incur the reactions flowing from the type of remedial machinery available in that community” (p. 119). This definition of rights allows for the fact that it is society (or some segment thereof) that decides upon the moral and juridical guidelines under which liberties are granted to individuals. Interests, in turn, are defined as an aggregation of rights or the range of activities that an individual can enjoy or pursue against other persons (p. 120)—in this case, with respect to a determinate amount of land. Thus, an individual interest in land consists of an aggregation of rights such as the right to farm the land, to raise livestock, to will it to kin or to sell it. The notion of property is then embedded in these two concepts and is conceptualized as a way of associating the control over a cluster of rights with a symbol—i.e., legal documentation (p. 119). Steppacher (2006), following Otto Steiger, defines property as a de jure claim to some asset which entitles its holder to the intangible (non-physical) capacities to: 1) back it and, thereby, to burden it in issuing money against interest, 2) encumber it as collateral for obtaining money, 3) alienate it, including sale and lease, and 4) enforce it (p. 4). Consequently, owning property grants several permissions to individuals vis-à-vis their assets. Land tenure systems are, therefore, nothing more than a collection of laws, norms, etc., which affect the possessors of interests in land within a society. Furthermore, land tenure systems undergo various changes as societies evolve and, thus, affect the importance of land to the society. For example, during the medieval era, kings and important aristocrats controlled most of the land and determined the system of tenure. In the contemporary period, land tenure in most societies is decided by
governments through zoning and other regulatory actions or by groups such as clans in Sub-Saharan Africa.

3. The Neoclassical View

Neoclassical economic theory examines the issue of land tenure from a methodological individualist point of view. Furthermore, it argues that the marginal return to each and every economic agent will asymptotically approach the marginal return to the society as a whole. Within general equilibrium analysis, a fictional Walrasian auctioneer (the market mechanism) acts to establish an equilibrium price vector which equates supply and demand for every commodity, including land, thereby allocating resources to their most efficient uses (and users). According to Barrows and Roth, neoclassical theory holds that the following conditions are necessary and sufficient for the efficient allocation of land within a market-oriented society:

Clear Definition of Rights

In his paper, “Economic Analysis, Legal Framework and Land Tenure Systems”, Johnson argues that, when rights to land are not clearly defined, transaction costs increase. Increasing transaction costs drive a wedge between the value of the marginal product of land actually in use and what would be obtained if the land was utilized by a more productive alternative user. This, he claims, will affect the marginal value of the land as it is determined by the annual flow of income its owner receives. Neoclassicals, therefore, argue that the sale of land should involve minimal transaction costs and that this objective can be achieved by clearly defining property rights to the land in order to maximize its returns.

Costs and Rewards Internalized

Neoclassicals will also agree with Johnson’s assertion that for land to be properly allocated and efficiently used, costs and rewards should be internalized at the individual level so that the decision-making unit can combine the other factors of production with land in a way that will maximize his rewards and minimize his costs. Johnson argues further that, when land is a social or communal construct, costs and rewards are not internalized because there are no incentives for agents to properly combine it with other factors of production to ensure that the marginal benefits are being maximized.
Contracts

Barrows and Roth note that neoclassicals assert that if the freedom to contract is inhibited—e.g., by restrictions on land transfers through market exchanges—then investment will decrease through both a demand and supply effect, due to increased uncertainty and costs. Ault and Rutman (1979), along with other neoclassicals, argue that the creation of free-hold titles reduces the transaction costs associated with land transfers. Furthermore, these titles create a market for land when it is scarce and when the private gains from exchange are greater that the costs of transfer. Thus contracts in the land market will allow for the realization of these gains which will then lead to a higher marginal value product and bid land away from less productive uses. Those who can most efficiently use the land are those who will engage in the bidding process and eventually use it in conjunction with other factors of production in order to create the greatest benefit. Given the points above, the individualization of land tenure is a more efficient form of land tenure because it increases tenure security, thus, reducing costs such as litigation over land disputes and thereby allowing for maximization of the benefits to the users of the land. Also, it is argued that, individualization will increase investment opportunities as land markets emerge to efficiently allocate land for production. It is important to note that this paradigm has been implemented throughout most of the world today.

4. The Institutionalist View

Institutionalists believe that the institutions that exist within a culture play a significant role in the dynamics of that society. From the perspective of the so called Veblenian dichotomy, systems of land tenure are found within specific cultures and possess both instrumental and ceremonial aspects. These aspects are verified within their own instrumental and ceremonial logics, respectively. Institutionalists view land as part of the factors of production along with machines and energy. They do not regard these divisions as ways of distributing resources but as ways of creating goods and services for society. One technological aspect of land is that when it is combined with energy and machines, which are governed by the tool-using skills of the society, land can be cultivated for feeding the community and thus increasing contributing to the life process. This type of behavior is verified within an instrumental logic because without the cultivation of land no society could survive. For example, the settlers of the Island of Tikopia and the people of the Tokugawa period in Japanese history were able to adapt to the evolving
nature of the land as deforestation continued to destroy their communities ability to ensure their survival. Diamond (2005) also provides a number of examples of how societies are very interconnected with their environment, especially land, and how adaptations to changes in land are critical for the survival of the society. The ceremonial aspects of land include the legends, myths and stories that govern the use of land. These ceremonies are deeply entrenched within a culture and are inhibitory to change. Land tenure system’s are thus part of the ceremonial aspects of land because they govern the ways in which land is passed down through kinship relations, how land is willed to other members of the society and, finally, the role of the land in relation to the prosperity code of the society. Bentsi-Enchill (1965) notes that the security of tenure is very closely linked to the inheritance and succession laws of the society. Consequently, tenure systems can affect who gets the land after the death of an individual, the current holders of the land and under which conditions it is sold. Myths, legends and traditions within an institution of land tenure can control the security of tenure. In order to discuss the differences between the institutionalist and neoclassical approaches, I will advance similar arguments as those made by Barrows and Roth which is consistent with the institutional perspective outlined above.

Clear Definition of Rights
As we have seen, Omotunde Johnson argues via marginal analysis that rights need to be clearly defined so that the user of the land will work to maximize the marginal benefits they get from the land. This requires the fragmentation of rights in societies where these rights have traditionally been held collectively. Institutionalists, on the other hand, argue that fragmenting societal rights will not necessarily lead to increased marginal benefits for the individual user if the society has not evolved enough to accommodate that change. This is in no way suggesting that nations in Sub-Saharan Africa are not sophisticated in their institutional arrangements with regards to land. It rather implies that approaches for increasing efficient use of land in different societies should not be plunged into existing societies like that of Sub-Saharan Africa without having a good notion of what the existing institutions, where they have evolved from and what course do they seem to be taking for the future. As noted above, one of the reasons why the Polynesians on Easter Island disappeared was because of an institutional structure in which each chief owning his own land sought tirelessly to increase his status by erecting bigger monuments, hosting bigger feasts thereby overexploit his land, and in some case that of others (Diamond 2005).
Richard Dadzie

Institutionalists argue that not only is it difficult to parcel out something that belongs to a community, it is difficult to tell if those individuals who are in possession of these clearly defined rights have the best interest of the community at heart and let alone that their collective behavior will asymptotically approach the marginal benefit of the society as a whole. As Diamond notes, “Clashes of interest involving rational behavior are also prone to arise when the principal consumer has no long-term stake in preserving the resource but society as a whole does” (ibid., p. 430). Thus clearly defined property rights are not a necessary or sufficient condition for the increased marginal benefit of the society.

Cost and Rewards Internalized

According to the standard neoclassical argument, the costs and rewards of using land should be internalized within the individual user in order to ensure the efficient use of the land. However, institutionalists argue that this course of action is not effective in generating a social optimum. Given land and the ceremonies that govern its use, the uses to which it is put will be efficient if the costs and rewards are internalized at the societal level, as in the case of the Tikopian Islander’s (Diamond 2005). In Tikopia, “Chiefs and their families, produce their own food and dig in their own gardens and orchards as do the commoners” (ibid., p. 293). Diamond goes on further to discuss the fact that the Tikopian chief is a custodian of the traditions of society and serves as a prime agent and interpreter of societal values. He also notes, in reference to anthropologist Raymond Firth, that: “Ultimately, the more of production is inherent in the social tradition” (ibid., p. 293). This model of internalizing rewards and costs at the social level or the upper level of decision-makers like chiefs will ensure that efforts to maximize benefits will indeed be a closer approximation to that of the social benefit as opposed to that of the individual.

Contracts

The importance of contracts is strongly supported by the neoclassical approach to land tenure, given the argument that contracts reduce the transfer costs of selling land and makes it easier for land markets to arise which equate the supply and demand for land. In contrast, institutionalists argue that it is impossible to contract out a factor, such as land, that is social in nature. Barrows and Roth note that contracts which were supposed to lead to the creation of land markets and make it easy to borrow money to buy and sell land were a failure in the countries studied (Kenya,
Uganda and Zimbabwe), because those societies had not evolved to that system (pp. 276-280). Also, land markets were unable to develop because financial institutions were making loans only to those individuals who already had titles, without substantially increasing the aggregate supply of land for sale in those economies. They also noticed that in the case of Kenya, some form of land markets existed prior to the introduction of land reforms in the 1950’s, thus contracts destroyed the emerging land markets and replaced them with ones that favored those individuals who had political power. Finally, contracts were difficult to attain in these countries because land was owned communally or semi-communally through clans and, thus, it was difficult for a single individual to lay claim to it. Stamm also notes that in Burkina Faso, where land contracts were not readily available and markets were not visible, societies of land owners with technological capabilities were increasing the marginal benefits gained from the land as they combined energy and machines with the land. Therefore, contracts are neither a necessary nor sufficient condition for creating land markets and increasing the marginal benefits from the use of land for a society. Instead, the interconnection of other institutions with land and the existing ceremonies and technology surrounding land tenure systems within a society should be analyzed before contracts are made.

5. Implications for Economic Development
Neoclassical views of land tenure, though theoretically plausible, are not empirically verifiable. In Sub Saharan Africa, for example, the economic analysis of land tenure has focused on neoclassical theories of profit maximization that have tended to be unsustainable and exploitative—in terms of human capital—and physically—with regards to the environment. Neoclassical theory is found to be particularly implausible when compared to the empirical evidence in Burkina Faso brought forth by Volker Stamm (1994). Stamm concludes by stating that, “we are finding in Burkina Faso that economic arguments, when not limited to neo-classical abstractions, may provide valuable insights into the rationale and functioning of traditional social structures” (ibid., p. 717). Diamond makes a similar argument by noting that evolving factors affect societies and that it is how those societies adapt to those evolutionary factors which determine their actual existence. The Norsemen who failed to adapt to the harsh realities of Greenland eventually disappeared and the shogunate (rulers) of the Tokugawa period of Japan and Joaquin Balaguer’s decisions in Dominica led to their nations having more forest and having
better standards of living than many other nations for example Haiti in the case of the Dominica. To claim that institutional theory provides absolute guarantees in regards to sustainable development would be an overstatement; however, to accept that it offers better insights into the developmental process would be a giant step in the right direction. Reformers of land tenure systems should pay closer attention to the specific cultural institutions of land tenure and allow for careful analysis of the interrelatedness of other institutions as economists, as in the works of D. C. North, Rolf Steppacher and Volker Stamm, amongst so many others, have advocated over the years. Alterations to land tenure systems should also seek to be environmentally sustainable in Sub Saharan Africa since the resources embedded in land are usually non-renewable. Rolf Steppacher notes that, “Economic rationality from a property point of view does favor economic growth but does neither guarantee an improvement of social conditions nor the avoidance of ecological degradations” (p. 25). This view is shared by institutionalists, amongst others, who are in favor of sustainable growth and development.

6. Conclusion

Land reforms, while difficult, can be used to influence growth and sustainable development if institutional theories are applied, especially in Sub Saharan Africa. A clear definition of rights, the internalization of costs and rewards and the importance of contracts are can facilitate our understanding of land tenure systems and how they shape societies and influence growth and development. However, neoclassical prescriptions regarding land tenure systems have failed to yield fruitful results. It is time that institutionalist and other non-market approaches are considered as an alternative to these failed policy prescriptions.

Notes

1 See William T. Waller (1982) for a detailed discussion of the Veblenian Dichotomy.

References


A Marxian Analysis of the Labor-Labor Conflict:

Competition, Capital Accumulation and the Industrial Reserve Army

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Abstract: Marxian class analysis often takes as its object the capital-labor relation. In contrast, this article examines the class conflicts within the working class through the lens of the classical Marxian framework as elaborated in the work of Howard Botwinick (1993). It further extends this framework via an analysis of the race and gender aspects of these conflicts. It concludes with some suggestions of the relevance of this analysis for further researcher and public policy formation.

1. Introduction

“Being a worker”, according to Marxist sociologist Harry Braverman, “is a condition which originates not primarily in some form of work activity but rather in a social relation” (1994, p. 15). The collectivity of individual workers so defined constitutes the working class, an historically recent phenomenon associated with the development of the modern capitalist system:

In place of a population consisting, as it did in the past, of people with a fixed and defined place in the economy and with a certain relation to land, to the artisan guilds, or to commerce, we have today a floating population of separated molecules which are combined and recomposed according to the needs of capital. This population exists to serve, as interchangeable parts, a limited number of ever larger corporate enterprises, which in turn exist for the purpose of expanding their capital (and alongside of which exist governmental or semi-governmental organizations having an auxiliary role which are organized in a similar fashion).

The organizing group which owns, controls, and manages these corporations is a small layer of a few percent of the population, and the national structure exists for the benefit of this class of people and to carry out their purposes and designs. The largest part of the remainder of society exists merely to serve these organizations and lives only by striking wage bargains with them—in many cases as individuals, and in many other cases with the aid of organizations which somewhat ameliorate their
conditions of life and labor without gaining for them any substantial measure of power or control (ibid., pp. 16-17).

However, in contrast to an emphasis on the capital-labor relation, the purpose of this paper is to explain how the class dynamics of a capitalist economy create a struggle for employment within the working class, which in turn exposes workers to wage inequality and job competition. Based on the work of Howard Botwinick, a Marxian analysis of the causes of wage and job differentials between the employed, underemployed, and unemployed is advanced. In addition, I address the ways in which non-class factors aggravate the internal conflicts within the working class, as this is affected by the competition among capitals. I conclude by examining some of the implications of this analysis for future research and public policy formation.

2. Wage Determination in a Classical Marxian Framework

According to neoclassical economists, standard theory posits the existence of a labor-leisure tradeoff confronted by potential labor market participants. As a result, decreasing real wages should eliminate any excess supply of labor as an increasing number of workers will choose greater leisure time in the face of declining wage rates. However, this argument is difficult to accept when the working class has only one commodity to offer in order to survive—namely, its labor-power. Consequently, within the neoclassical framework, efficiency wage theory has developed in an attempt to better explain how long periods of sustained unemployment and underemployment occur through the use of a frictional analysis. Still other economists, such as some radical economists, divide and conquer theorists, and segmentation and dual economy theorists, again often using a neoclassical framework, offer alternative explanations for the persistence of large-scale inequality and joblessness. Nonetheless, all fail to provide an adequate framework for understanding why the labor market suffers from sustained unemployment and complex wage differentials.

In a call for an “alternative theory of competitive wage determination”, Botwinick argues that:

Based on over one hundred years of empirical evidence, a viable theory must be able to explain how substantial wage differentials among comparable workers can quite obviously persist under highly competitive conditions. Equally important, it must provide a clear analysis of how unions have
repeatedly managed to play a critical role in the final patterning of the wage structure despite these ongoing competitive forces. Ideally, if we can better understand how wage inequality is continually generated by the dynamics of the capitalist labor market, we can better understand how to combat the divisive competitive pressures that continually tend to arise among workers (1993, p. 8).

In his attempts to accomplish this goal, Botwinick constructs a theoretical framework based on the “classical Marxian analysis of capitalist competition between and within industries”, where differential profit rates lead to the creation of wage differentials within and between workers of different industries (ibid., pp. 8-9). The main conclusions which follow from this framework are defined by the claim that “persistent patterns of wage differentials […] are largely the result of three key dynamics”:

(1) “The ongoing process of capitalist competition and technical change that continually generates differential conditions of production, productivity, and profitability between and within industries”;

(2) “The continual regeneration of a reserve army of unemployed workers who are constantly driven to seek out employment at substandard wages in order to survive”; and

(3) “The uneven efforts of organized workers to raise their wage rates within the strict limits defined by both these differential conditions of production and profitability and by the constant downward pressures of the reserve army” (ibid., p. 9).

In addition, Botwinick touches on the race and gender discriminatory aspects of persistent wage inequality:

First, there is the generation of jobs with substandard working conditions and below-average wage rates. And second, there is the discriminatory assignment of a disproportionate number of people of color and women to these low-paying jobs (ibid., p. 10).
Although Botwinick’s analysis of these discriminatory aspects is incomplete, additional authors are utilized in the course of this analysis in order to offer a more complete picture of the effects of discrimination vis-à-vis these “patterns of inequality”.

Beginning with Marx’s labor theory of value, Botwinick addresses the worker’s sole commodity—labor-power—and the variation in its value due to the differences in the “socially necessary labor time which is required for its reproduction”, which are dictated by physical as well as historical and moral elements (ibid., pp. 67, 69). Importantly, “the commodity labor-power is […] the only commodity within the capitalist economy [which its] use-value is capable of generating not only new value, but a surplus value over and above what it costs to daily reproduce it”—i.e., the amount above the worker’s daily wage (ibid., p. 68). Surplus value, in turn, is the source of profits and “the rate of surplus value (or the proportion of unpaid to paid labor) […] forms the foundation for Marx’s analysis of the more complexly determined rate of profit” (ibid.).

Botwinick continues his argument by noting that “capitalist economies have two sets of mechanisms that regulate movements in the general wage level”:

The first mechanism is initially provided by what Marx called the ‘primitive accumulation of capital’, whereby the means of production are essentially monopolized by the capitalist class and the nascent working class is forced to become ‘doubly free’. The second set of regulating dynamics concerns the capitalist mode of production proper and involves the laws of capitalist accumulation that constantly mechanize the labor process and continually generate a reserve army of labor (ibid., p. 69).

By this double freedom, Marx is referring to the positive freedom of workers from the constraints of pre-capitalist systems (e.g., slavery, serfdom, and guild systems) as well as the negative freedom of the workers from the means of production, forcing workers to sell their one commodity, labor-power, to the capitalists in order to survive (ibid., p. 71). Furthermore, the process of capital accumulation leads to the generation of the reserve army of labor through:

[T]he dynamic interaction of three key factors: changes in the rate of accumulation (or the rate of growth of capitalist investment); changes in the organic composition of capital; and changes in the labor force participation rate of the potential working population (ibid., pp. 74-75).
An increase in the first may indicate an increased demand for labor. However, mechanization and deskilling (characterizing the second factor) restrain the rate of accumulation (ibid., p. 79). According to Marx, the latter will limit the former for a number of reasons: 1) there is a tendency towards the centralization of capital, 2) technological change is recursive, and 3) “increases in the organic composition of capital will tend to lower the rate of profit and therefore dampen the rate of accumulation” (ibid.).

Thus, although the absolute demand for labor will tend to rise during periods of normal accumulation, Marx argues that increases in the composition of capital will tend to ensure that this growing demand for labor will not overtake the available supply (ibid.).

In other words, “the laws of accumulation will tend to limit movements in the wage level”, because “real wages [will] not rise as rapidly as productivity” (ibid., pp. 91, 95).

In his analysis of wage differentials, Botwinick stresses the struggle between the currently employed and those in the reserve army of labor:

[A]ll of these displaced workers must attempt to reestablish their connection to the active army in a labor market that is generally characterized by an excess supply of labor even during periods of rapid growth. As a result, the competition for scarce jobs can often become fierce, and even the most skilled and energetic among the unemployed may find it difficult to reestablish themselves in the active labor army (ibid., p. 98).

Often the unemployed, in order to return to the active army, must settle for inferior jobs. Furthermore, Botwinick continues with two additional observations:

First, given that this process of differentiation is an integral part of Marx’s general law of capitalist accumulation, it must also be considered when attempting to assess the current relevancy of Marx’s argument concerning capitalism’s long-run tendency to homogenize the working class. Second, the presence of these groups of workers who are in various degrees of desperation can often create an intense degree of competition and antagonism between employed and unemployed workers that is not merely generated by capital’s attempts to divide and conquer the working class (ibid., p. 99).
The first observation pertains to capital’s tendency to deskill workers through mechanization, which in turn leads to capital accumulation, thus, causing an excess supply of labor, even in times of growth. The second observation, the focus of this paper, will now be examined.

3. The Labor-Labor Conflict
Botwinick acknowledges that the employed struggle on two fronts. The first is with capital over deskilling and production intensification, while the second is with other workers as a protective measure against becoming a part of the reserve army themselves (ibid., p. 101). As mentioned above, Botwinick pitches his analysis at a high level of abstraction, while acknowledging the cultural elements involved in the struggle for employment. In his historical analyses, Botwinick notes that workers’ protective arrangements through self-organization have often exacerbated the problem for those workers excluded from these organizations. Exclusive unions such as the AFL have led to “very harmful forms of segmentation”; whereas the CIO, an inclusive union, had been more effective at protecting workers against the destructive effects of capitalism (ibid., p. 102). However, segmentation may have both positive and negative effects. For example, in the workplace, classification systems based on skill differentials promote labor’s bargaining power over capital. Nonetheless:

To the extent that unions become undemocratic, unwarranted wage differentials begin to appear, and various forms of worker and employer discrimination begin to proliferate, these structures will tend to degenerate into mechanisms for protecting privileged sectors at the top of the ladder at the expense of those at the bottom. Moreover, these policies will not only harm those workers who are denied access to better jobs, but they will ultimately undermine the long-run organization and solidarity of the union (ibid., p. 103).

Again, as touched on above, efforts by the employed to organize themselves may provide “stabilization […] within the active army [but] can often lead to the stabilization of other groups within the reserve army” (ibid.). If these organizational methods exclude others based on race or gender, then segmentation will have lasting, negative effects.

Observing the high point of industrial unionism in the 1930s and 1940s, when groups like the CIO were able to stymie capital’s attempts to replace workers with the unemployed and to “undercut established wage rates”, Botwinick laments:
Unfortunately, the political and economic organization of the working class does not proceed in a neatly linear fashion toward ever higher levels of solidarity, class consciousness, and classwide organization. There are often serious setbacks as political and/or economic conditions change and capital regains the upper hand. It is also within these periods of retreat with weak organization and weak leadership that unions are most likely to pursue short-run goals that attempt to maintain their declining memberships at the expense of those outside of the existing union structures. And, of course, these short-sighted, opportunistic tactics often have very negative long-run implications for the organization of the working class as a whole (ibid., pp. 105-106).

By Botwinick’s estimation, social unionism, such as the industrial unionism exhibited by the CIO, saw its demise due a number of factors, including: 1) regulatory and legislative changes in the 1940s, making “sympathy strikes, secondary boycotts, wildcat strikes, and mass picketing” illegal, 2) the promotion of “the ‘right to work’ provision [which] helped to create a vast nonunion getaway for U.S. capital within the nation’s hinterlands and particularly in the South”, and 3) anti-communist, deunionization tactics in the 1950s (ibid., p. 106).

Botwinick proceeds to explain wage differentials by noting that:

First, we will show precisely how the competitive generation of differential conditions of production and profitability between and within industries also provides the basis for differential limits to rising wage rates across these same firms and industries. Despite this continual generation of differential wage and profit rates, however, we will go on to argue that the combined effects of capitalist competition and the ever present reserve army of labor will nevertheless set strict limits to these wage variations. Finally, within these systematic limits, we will show that the uneven efforts of workers to increase their wage rates can have a very significant and persistent influence on wage differentials among workers of similar skill (ibid., p. 173).

Put succinctly, Botwinick quotes Marx from the Grundrisse: “The competition among workers is only another form of the competition among capitals” (ibid., p. 172).

Thus, Botwinick’s argument is two-pronged. First, in an attempt to lower production costs firms mechanize production, “thereby differentiating units of capital according to the technical and social relations of production” (Williams and Kenison 1996, p. 8). This innovation leads to a
“transformation of the competitive environment” as “higher constant capital costs offset lower variable capital costs”. Consequently, “[i]nnovators can lower prices and increase market shares”. Competitors cannot instantaneously change their production technology and, therefore, “they cannot completely realize the value of their older means of production”. For a brief period, the innovator may face a reduced profit rate. However, “[w]hen market prices fall so as to reflect the lower costs of production, the innovator is well positioned to secure the highest profit rate in the industry” (ibid.).

Second, “[i]nter-industry variations in the organic consumption of capital imply an inverse relation between the rate of profit and the [organic composition of capital]” and it is this shift of capital between sectors “which generates a tendency toward the equalization of profit rates”. This process is not the neoclassical notion of equilibrium at work, but rather a movement around a “center of gravity” (ibid.). Materially, capital does not move instantaneously; rather “profit rate equalization requires real time” and, thus, “we should expect to observe significant dispersion of profit rates across industries” (ibid., pp. 9-10).

Williams and Kenison summarize Botwinick’s analysis of how prolonged profit rate differentials impact wage differentials as follows:

Thus capitalist competition both differentiates and equalizes conditions of production and profitability. It is this competitive process of differentiation that both provides the basis for differential limits to wage increases between (and within) industries and sustains job competition among workers seeking to secure favorable employment conditions. These wage differentials are neither transitory not constant across sectors, and are determined by the conditions of competition within and between industries. For the working classes, capital’s competitive conditions, along with the size and composition of the reserve army, function as crucial determinates of worker movement from the reserve army to the job hierarchies. It is this mediating impact of capital’s competitive conditions that generates recurring non-compensating wage differentials (ibid., p. 10).

For our purposes, the key interplay is that between the organized labor force and capital, and the ramifications of these interactions for the unorganized and unemployed. Significantly, organized workers produce “costs of obstruction”, which capital must balance against the workers efforts to raise wages; concessions will be made as long as they are cost-effective (Botwinick 1993, pp. 196-197). These bargaining situations are affected by several factors, including the mobility of
labor. However, breaking the union does not come cheap (ibid., pp. 200-202). Unions are instrumental in raising the costs of labor mobility—i.e., costs to the community, costs of relocation—to avoid utilization of the reserve army of labor and the depression of wage rates (ibid., pp. 201-202). This is an important point because it exhibits wage differentials “without the presence of substantial ‘barriers’ to the mobility of labor”—i.e., within the framework of a highly competitive economy. In a competitive environment one would assume that employers faced with higher wage pressures would search out low-wage workers (ibid., p. 202). However, Botwinick, quoting Milkman, explains that “employers often have highly contradictory interests”:

Thus, while capital as a class may clearly benefit from a weakened and segmented work force, ‘rigid sex- and race-typing of jobs may create difficulties for individual employers in obtaining the labor supplies they require at minimal costs, precisely because wage differentials are likely to be the key underpinning of occupational segregation’. In other words, the relentless forces of capitalist competition will often place strict limits on these classwide designs (ibid., p.203).

Employers may be willing to hire minority workers; however, there are “always significant costs to bringing in low-wage workers in general—regardless of their race or gender” (ibid.). Botwinick concludes this particular line of analysis with a call for further discussion into “why both people of color and women have historically come to be disproportionately represented within the various low-wage sectors of the reserve army” (ibid.).

4. Race, Gender and the Labor-Labor Conflict
Williams provides an opening dialogue on this subject:

It is the extension of Marxist competition to the owners of labor power which restores discrimination’s logical place in capitalist development. Workers, too, can consolidate according to ethnicity and race. Like capitalists, workers can concentrate their winnings and insulate themselves from the encroachments of recruits from the relative surplus population and/or job-specific labor reserves. Established workers derive their strength from control of job definition, training, information, and credentials. If entrenched ‘early risers’ in the free labor market can protect their positions, at least three possible fates await the newly emergent competitors: (1) they will be cast
back into the labor reserve/reserve army; (2) they will be integrated into production as a lower waged, non-competing group, thereby generating intra-sectoral racial earnings inequality, or (3) they will find employment in spheres of production not dominated by more established groups (1987, p. 10).

Williams’ argument is based on an insider-outsider analogy: “To the extent that their competitors are ethnically or racially distinct, established workers can deploy racist ideologies as justification for protecting their gains from outsiders” (ibid.). Like Botwinick, hers is a structural/abstract argument applied to issues of racial inequality, in that as the employed discern a threat from new workers racial conflict objectifies the threat (ibid.). As Williams and Kenison note:

In articulating the notion that capital’s hierarchies are racialized and gendered, we do not presume to have exhausted the full import or meaning of race and gender in capitalist social formations. Rather, we simply argue that race and gender based identities and communities have considerable explanatory power in accounting for both the self-understanding and agency of market actors in modern capitalist societies. Competitive capital accumulation endogenizes exclusion and therefore provides the material foundations for discrimination (1996, p. 10).

Mason provides a framework for the analysis of wage discrimination and job competition based on racial (and gender) effects:

Wage discrimination occurs because socially constructed racial and gender identities function as job allocation mechanisms for ‘high’ wage positions and markers of ‘low’ wage laborers for capital. Measured intergroup earnings differentials are a persistent outcome of the interaction of two phenomena. One, the adverse effect of racial conflict on the organizational strength of workers which, in turn, affects the formation of intercapital wage differentials. I refer to this as the class struggle effect. Two, the interracial employment ratio for a unit of capital has a negative correlation with the wage differential associated with that capital, across all occupations. I refer to this as the racial exclusion effect. The interaction of the class struggle and racial exclusion effects implies persistent discrimination (1997, p. 366).

In other words, racial conflict limits the ability of workers to organize and alleviate the tendency towards wage differentials, which is compounded by the historical and culturally-entrenched tendency for people of color (and women) to be distributed amongst low-wage positions. In the
same vein, Mason’s estimation is that classical Marxian modeling has provided evidence “that
capitalism and racism are mutually reinforcing social structures”:

Multiple forms of discrimination persist in this model because involuntary unemployment, under-
employment, and inter- and intra-industry noncompensating wage differentials are outcomes of a
segmentation process based on differential access to stable employment and the competitive structure
of capitals. The principle of exclusion – unequal access to income opportunities – is an endogenous
outcome of the model, as race, ethnicity, gender, and so forth, are used as labor allocation criteria.
Hence, not only will capital seize upon and reproduce pre-existing differences among workers, but
the market allocation process itself is conducive to race-, ethnic-, and gender-invidious comparisons
in the competition for scarce income procurement opportunities (ibid., p. 370).

Observing the role of high-waged, white male workers in this framework, Williams’
proposed framing of further research is to:

[C]onsider the . . . possibility that whites’ primary concerns are often short-term material well-being
in the context of existing capitalist social relations and an uncertain future. Under these conditions, it
may well be that whites as a group believe they can more easily protect their economic interests by
actively eliminating black competition than by creation and/or maintenance of interracial coalitions.
Surely we should not, a priori, eliminate this hypothesis simply because it implies a less than
revolutionary white working class agenda (1987, p. 11).

An example of this new research lens may be found in Williams’ analysis of opposition to
affirmative action programs:

Marxian theory suggests that the past decade of white male resistance to ‘affirmative action’ is not
without economic foundation. Affirmative action is an effort to redistribute the destitution caused by
capital’s rivalry. In the United States, policies designed to racially redistribute employment and
wages will be resisted by many white workers who have benefited from a state-supported (and
gender-mediated) race privilege that allowed them to consolidate employment winnings. An
overnight racial re-apportionment of employment and wage income would leave millions of whites
(men and women) either unemployed or working at lower wages. Hence dominant workers will (and
do) resist efforts to change the rules; they marshal their intellectual, political, cultural, and economic resources to fend off the insistent outsider (1991, p. 92).

In light of the proceeding analysis—i.e., the structural framework of capitalism promoting wage differentials and the resistance to change based on race and gender—the difficulties faced by attempts to alleviate wage and job differentials are evident.

5. Policy Implications of the Labor-Labor Conflict

As respects the policy implications stemming from an analysis of the labor-labor conflict, economists working within the classical Marxian framework call for proactive policy decisionmaking which takes into account the social underpinnings of the classical competitive framework. For example, Mason advocates:

If one views intergroup differences in labor remuneration that are disassociated with intergroup differences in productive ability as inequitable, then there is justification in this model for aggressive and permanent social involvement in the determination of labor market outcomes. In this light, we may be forced to view comparable worth, affirmative action, or socially aggressive, imaginative, and non-traditional strategies as permanent aspects of social policy rather than temporary measures to alter past historical wrongs (1997, p. 371).

In kind, Williams advocates for stronger interracial alliances: “Our analysis suggests that a Marxian conceptualization of competition restores a logical place for solidarity among ethnic communities seeking collectively to climb, rather than smash, the wage hierarchy” (1991, p. 92). Shulman, on the other hand, provides a cautionary note:

Discrimination is capable of adapting to changes in its political and economic environment as long as there are incentives for it to be practiced. These incentives exist for both white workers and capitalists, the former in terms of job security and the latter in terms of the maximization of control and the minimization of costs. There is no necessary reason for discrimination to decline over time, especially given the propensity of a capitalist economy to create slack labor markets. The view that discrimination is a form of irrational business decision making fails to consider the social cohesion created by racial identification both among white workers and between white workers and capitalists,
and the impact of that cohesion on output and incomes. Capitalism responds to discrimination in the same flexible, rational, and adaptive manner that it responds to all else in its environment. It uses discrimination like any other resource. It incorporates it, transforms it, and ultimately reproduces it (1991, pp. 36-37).

6. Conclusion

A quote from Williams leads us into our conclusion:

Political economy is no stranger to the notion that capitalism’s uneven development creates bad jobs, good jobs, and no jobs. That which has been lacking is an understanding of competition unencumbered by the limitations of neoclassical competition which also accommodates the reproduction of wage differentials and the racial distribution of employment (1987, p. 13).

This paper constitutes an attempt to explain the economic and, to some extent, the social roots of the struggle for employment fought by the employed, underemployed, and unemployed. The latter has been characterized as a triangular battle between capital, the employed and the unemployed, as well as a hierarchical struggle along the pyramid of low- to high-paying jobs. Utilizing Botwinick’s analysis of the classical Marxian framework of competitive capitalist economies, we discerned how profit rate differentials within and between industries, over prolonged periods of time, set limits to and create instances of wage differentials. Wage differentials are also exacerbated by the downward pressure exerted by the existence of a reserve army of labor, due in part to the mechanization and deskilling effects of technological change (i.e., capital accumulation). Within this framework, workers perceiving a threat to their livelihood will use any means necessary to differentiate themselves from others. For many, these lines of differentiation may come down to differences in race and gender. The key to this analysis is an awareness of this process in order to provide researchers with a more appropriate methodological lens, and labor organizers and proactive policymakers with the theoretical means to address the problems that they face.

Notes

1 Zeitlin and Weyher (2001) provide a history of the labor movement in the 1930s and 1940s. Their findings are consistent with Botwinick’s analysis: black membership in the CIO had a
positive significant impact on the level of employment equality between black and white workers. Their conclusion: “the struggle for racial equality was most effective where it coalesced with the class struggle” (ibid., p. 455).

2 As an aside, the demise of the CIO may be an opportunity for path creation research. I realize that such an approach may be in line with the divide and conquer theorists, but it strikes the author as an interesting area of study—i.e., capital manipulation of governmental bodies to deflate mounting worker solidarity.

References
Women in the Economy: A Study of Women’s Wages and Labor Discrimination

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Abstract: This paper addresses the problem of women’s wage and occupational discrimination by looking at other factors that are not always analyzed in a regular market situation. The basis of analysis is through the econometric model of an Ordinary Least Squares regression of the log wage against a set of independent variables, which results in a more accurate portrayal of women’s pay as a result of their efforts in the labor market. This paper also includes an investigation of the intersection of gender within the framework of industry and occupation to see how they change the wage gap.

1. Introduction

The concept and role of gender in the economy has an ever changing and dynamic structure. As 19th century feminist Tennesse Claflin said, “The history of woman is the history of the continued and universal oppression of one sex by the other. The emancipation of woman is her restoration to equal rights and privileges with man” (Lewis 2004). What is expressed through this quote is the dream and continued struggle for equality. This idea of Claflin’s still rings true today.

The dream of equality can be addressed by looking at the structure of occupations through varied perspectives and the changes that have been made over the years in the fight for rights and privileges similar to that of a man. Through this quote, a link has been formed between past thought and present action, feminism and economics. This paper will investigate the intersections of the two.

At the heart of this intersection is the claim that, ceteris paribus, women are being discriminated against. Although the nature of the labor market is changing for the better,
wages are rising and job distributions are changing, the labor market still has a long way to grow before women can achieve full equality. If full equality is not present, discrimination is a probable cause—but how is discrimination defined? The economist Joyce Jacobsen provides the definition used in this paper. She defines discrimination as a process not solely connected to prejudicial behavior, but incorporates the effects of changes in pay, hiring and promotion practices on general market characteristics as well as the wage gap (Jacobsen 1994).

The discussion in this paper starts with the theoretical models of wage discrimination, focusing specifically on two economic approaches: the conservative and the liberal. Looking at how each of these theories characterizes the idea of discrimination, a picture of the labor market begins to appear by analyzing each group’s beliefs on wage discrimination, occupational segregation and employment discrimination.

Where wage discrimination refers to differences in wages due to differences in gender, holding other productivity factors constant, occupational segregation refers to the segmentation of the labor market by gender, seen most noticeably through occupations, and lastly, employment discrimination refers to differences in hiring and promotion practices based on differences in sex. The last section deals with the formation of an econometric model and the subsequent data analysis.

2. Theories and Analysis

The Conservative View

Wage Discrimination

Within the conservative view there really is no such thing as wage discrimination. They recognize that differences in wages do exist, but claim that it is not a result of discriminatory behavior. They claim that the market determines wages, so differences in wages cannot be the result of discrimination, but in reality have to do with different characteristics of the mix of workers. Women in general have less formal education and/or training, and they accumulate poor behavior characteristics such as high rates of absenteeism. Since wages are a function of the characteristics of the worker, there is no bias on the part of the employer. The employers are simply reacting to the market;
therefore, differences are truly only due to workers’ characteristics (Resnick and Wolff 1987). As a result of these characteristics, conservatives understand what many label as discrimination as not really discrimination at all. It is more often a lack of human capital.

In order to increase one’s wages, there must be both a change in the woman’s attitude to work, as well as an improvement in human capital. As a result of making these changes, anyone can make it in the world. They just have to try and work hard enough to be able to pull themselves up by their own bootstraps. No one else can do it for them. Changes must be made on an individual level.

Characteristics must be changed individually, because when the government tries to get involved in the economy by introducing a minimum wage, prohibiting sex discrimination or by introducing public education, a conservative sees this as counter productive. When the government interferes with how the market sets prices and, therefore, wages, the resulting wages do not truly reflect the possible productivity levels of society. This can lead to bad decisions and predictions because they are based on false data or trends which are not reflective of society (Carson 1983).

In the competitive market the practice of discrimination offers no benefit. In the long run, discrimination will be non existent. Firms, who at first insisted that discrimination was actually beneficial, would end up having to endure higher costs rather than lower costs because of their discriminatory tastes. They would have higher costs because they would have to pay more to get someone with their desired characteristics, thus actually their costs would increase, and they would become inefficient and begin to lose profits as a result of discriminatory practices.

**Occupational Segregation and Employment Discrimination**

Occupational segregation, as seen through the eyes of a conservative, is a result of the fact that women are in the occupations of their own choosing. According to Richard Anker, the conservative view stresses women’s lower levels of human capital. This is the true cause of occupational segregation. The reduced levels of human capital result from less education within relevant fields of study, in addition to less consistent training due to intermittent or truncated participation within the labor market (Gordon 1977). This intermittent and truncated participation is due to the almost exclusive responsibility of
women for childcare and housework. As a result of this some employers feel that investment in human capital, through training, would be a waste for women. Consequently, the employer may think that they would be making a better choice by investing in a male worker rather than hiring and training a series of females to do one job.

This type of behavior is what leads women to self-segregate themselves into certain occupations. In general, “many women would rationally choose occupations with relatively high starting pay, relatively low returns to human capital, and relatively low penalties for temporary withdrawal from the labor force including occupations which are flexible in terms of entry and working hours” (Anker 1998, p. 16). Occupations with these characteristics are desirable because this gives women the ability to balance a job and household responsibilities. Thus, women deserve lower positions because of lower levels of productivity, as well as their choice of certain occupations.

The presence of a competitive market allows those who have the desire and the human capital necessary for a given occupation to have the job that they want, if they persist and maintain their human capital. All individuals in the market are seen as rational decision makers looking out for their own best interest. As a result, any economic outcome such as unemployment, poverty, and occupational segregation is seen as the result of individual choice (Carson 1983). Thus, the segregation that occurs is market driven and therefore the best way in which society can function.

**The Liberal View**

*Wage Discrimination*

By looking through the lens of liberal thought a different pattern emerges with regards to the existence and subsequent action associated with wage discrimination. Unlike the conservatives, who feel someone’s position in the labor market is due to their own characteristics and therefore their own choices, the liberal view asserts it is institutional discrimination at work.

A classic example to illustrate this view is when a firm refuses to hire a qualified female applicant because of stereotypes surrounding women’s work, which view women as unstable and not career-oriented. As a result, women end up receiving lower wages in
unstable jobs. This series of events then teaches women not to set high goals for themselves as a result of having been turned down in the market so many times before (Resnick and Wolff 1987).

In practice, wage discrimination is the result of a bias on the part of the employer reflecting societal norms. This form of discrimination can take many forms as no two people’s tastes are exactly the same. An employer must have a “taste for discrimination” to continue a discriminatory practice. “If people would benefit from ending discriminatory behavior, then they rationally would do so. This implies that those who generate discrimination must have a ‘taste for discrimination,’ if you have a taste for any good, this should show up in a ‘willingness to pay’” (Albel, Drago and Shulman 2001, p. 91). Thus, the resulting wages should be a function of prevailing market prices as well as the employer’s willingness to pay.

Overall, the market is not strong enough and competitive enough to discipline firms who act in a discriminatory manner, thus, government policies are required to keep a stable market economy. If discriminatory wages were allowed to persist, then wages would fluctuate at all extremes and the motion would not allow for a stable market. This is where the government gets involved, by the implementation of minimum wage laws and the creation of public education to correct for any discriminatory behavior that may have been present in the market.

*Occupational Segregation and Employment Discrimination*

One of the keys to understanding an individual’s position in the market is the level of their human capital. One’s human capital matters because a person will “rent” themselves out to an employer to earn returns from their human capital (Jacobsen 1994). If people are not hired based on their human capital characteristics this creates a cycle of lower wages. As Jacobsen states:

If women and men are equally productive, yet men are paid more than women, then women are receiving lower returns on human capital than men. If women anticipate this pay discrimination, they will invest less in market-work-related human capital relative to other forms of investment than they would otherwise. Therefore wages will be lower for women
than men, not only directly because of the workplace discrimination, but also indirectly due
to discrimination because they have less human capital (p. 250).

This second rate level of human capital has many complications, one of which is the
creation of the dual labor market. This dual labor market is divided into the primary and
secondary sectors. The primary sector is characterized by high paying jobs and
opportunities to advance, while the opposite is true of the secondary sector.

As the primary sector is most often associated with male occupations, men tend to be
favored in this system, since as they are the ones able to acquire continuous labor market
experience and accumulate high levels of human capital. As a result of their experience,
males are put in a position to take the best and most highly paid jobs available in the
primary sector. Women, on the other hand, are to begin work in the secondary sector
where they quickly realize that there is little opportunity for advancement. Consequently,
they are not motivated to perform highly, so they are more likely to develop bad attitudes,
bad habits, and bad behavior in the workplace. This reinforces the notion that they can
only work in the overcrowded and unskilled secondary sector.

Some may argue that crowding occurs voluntarily and women naturally chose to
work in the same field. Why do rational people stay in these positions, when they are not
earning sufficient returns to their human capital? If one was able to change their
occupation, given the same amount of human capital wouldn’t they switch? A rational
explanation would be that this segregation is not voluntary and discrimination is the
cause of lower wages for women in crowded occupations (Albelda, Drago and Shulman
2001). This cycle of discrimination resulting in the dual labor market has started to break
down as more women are entering the labor market. Although women in general are
moving into the labor force at a greater rate, the mindset of which profession they should
choose persists today.

3. The Model
Through econometric analysis one is able to look at the degree of women’s wage and
labor market discrimination by looking at separate Ordinary Least Squares (OLS)
regressions of the log wage against the dependent variables of age, age-squared, marital status, education level, race, industry, occupation, number of children under eighteen, and region for each sex. The OLS method is a linear regression model that in its simplicity is able to capture a complete relationship among the data points. Initially, this OLS regression will fit a straight line to the data. Then by logging the dependent wage variable, a curve that increases at a decreasing rate will be fit to the data, giving a more realistic view of what is happening. This technique of regressing against the log wage works because it allows one to think in terms of returns to capital, since the employer is in effect renting the labor for the given wage.

The data that was used for analysis in this paper is from the Current Population Survey (CPS) from the years 1985 to 1997, inclusive. The data was then cleaned to be a more homogenous group of laborers. Workers included have to be between the ages of 18 to 64, be employed full time, not in school, and have answered all the survey questions.

Having this homogenous group is important because part time laborers have different market characteristics and therefore act differently within the market. The full time/part time CPS variable was able to remove those who worked less than 35 hours a week for more than part of the previous year.

Current students were removed so that the job the individual presently holds attempts to correctly value their human capital characteristics. This is why workers must be between the ages of 18 to 64 years old and must not be enrolled in school. If someone was still in school, that person would generally work any job to get by and not one that matches their level of human capital. For example, someone who is working on a PhD in economics and who also works part time in a coffee shop is not using their economics education to help them make coffee. Thus, the model will not measure their full returns to education.

The key feature of this model is to look at the intersection of industry and occupation variables. Separately, these are interesting variables to look at, each with their own important dynamics. Collectively, they can be even more powerful. In this model eight industries and six occupation dummy variables are included. These dummies were created by looking at the industry and occupation participation variables for the previous
year. They were then grouped into the eight industries and six occupations based on predetermined categories prevalent in the literature.

Once the variables are defined a set of multilayer regressions are done. For each year in the survey two regressions are done, one for females and one for males. This is done to find the wage gap and establish the explained and unexplained portion of the wage gap. The amount of discrimination in the market is a subset of the unexplained wage gap. To do this the Blinder-Oaxaca decomposition was used, which generates more precise results with the use of separate regressions for females and for males to analyze the wage gap. Lastly this process was completed for the years 1997, 1993, 1989 and 1985.
For each gender, the standard multiple regression model is given by:

\[ y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_k x_k + \omega \]  

(1)

where in this model \( y \) is given by:

\[
\text{lnhrwage} = \beta_0 + \text{age} (x_1) + \text{agesq} (x_2) + \text{fam18} (x_3) + \text{married} (x_4) + \text{hs diploma} (x_5) + \text{some college} (x_6) + \text{college} (x_7) + \text{black} (x_8) + \text{other} (x_9) + \text{north west} (x_{10}) + \text{mid west} (x_{11}) + \text{south} (x_{12}) + \text{sale} (x_{13}) + \text{transport} (x_{14}) + \text{retail} (x_{15}) + \text{profess} (x_{16}) + \text{ibusiness} (x_{17}) + \text{entertain} (x_{18}) + \text{adim} (x_{19}) + \text{oadin} (x_{20}) + \text{science} (x_{21}) + \text{blue skill} (x_{22}) + \text{teach nurse} (x_{23}) + \text{olaborers} (x_{24}) + \omega
\]

(2)

Equation (1) is then put into the general form for a Blinder-Oaxaca decompostion

\[ \text{LnW} = \beta_0 + \sum_{i=1}^{k} \beta_i (X_i) + \omega \]

(3)

Where \( \beta_i \) is the set of coefficients for each explanatory variable \( X_i \) and \( \omega \) is the error term.

Equation (3) is then regressed for males and females seperatly resulting in:

\[ \text{LnW}_m = a_m + \sum_{i=1}^{k} \beta_{mi} (X_{mi}) + \omega_m \]  

(4)

\[ \text{LnW}_f = a_f + \sum_{i=1}^{k} \beta_{fi} (X_{fi}) + \omega_f \]  

(5)

Where \( a \) is a constant for the initial wage and the subscripts \( m \) and \( f \) refer to male and female equations respectively. Note that the \( X_i \) are the same in both (4) and (5).

The Blinder-Oaxaca decomposition is created by subtracting (5) from (4) and realizing that the mean value of the error term is zero thus resulting in (6) where the \( \overline{X} \) are the mean values.

\[ (\text{LnW}_m - \text{LnW}_f) = (a_m - a_f) + (\beta_m (\overline{X}_m) - \beta_f (\overline{X}_f)) \]

(6)

By adding in the composite term of \( \beta_m (\overline{X}_f) \) and using some algebra the result is the decomposition.

\[ (\text{LnW}_m - \text{LnW}_f) = (a_m - a_f) + \beta_m (\overline{X}_m - \overline{X}_f) + (\beta_m - \beta_f) \overline{X}_f \]

(7)

Thus the general framework for the wage gap is formed. The second term captures the explained difference and the third term captures the unexplained difference of the wage gap which is often used to capture the effects of discrimination.

(Introduced by Oaxaca 1973)
This process takes all the variables and then regresses them separately for males and females against the dependent variables of the ln wage. After the regression is done, there are different coefficients for each of the same variables depending on sex. Let’s call them, collectively, $\beta_m$ and $\beta_f$. Then they are multiplied by their respective mean human capital values ($\bar{X}$) to create the interaction terms $\hat{Y}_m = \bar{X}_m \beta_m$, $\hat{Y}_f = \bar{X}_f \beta_f$, and $\hat{Y}_{fm} = \bar{X}_f \beta_m$ which are simply written as the variable $\hat{Y}$'s to simplify the notation. The equations $\hat{Y}_m$ and $\hat{Y}_f$ give basic ln wage information for males and females respectively. The equation $\hat{Y}_{fm}$ is the most interesting of the three. The equation $\hat{Y}_{fm}$ presents what the “mean” woman would make if, everything else being equal, she were male. This is done by taking the mean female human capital characteristics and multiplying them by the average male coefficients. This process can be seen graphically.

What Blinder-Oaxaca is able to decompose is the nature of the wage gap. The total wage gap as shown in the graph above is the difference between $\hat{Y}_m$ and $\hat{Y}_f$. Blinder-Oaxaca is able to break the gap down into explained and unexplained wage: the difference between $\hat{Y}_m$ and $\hat{Y}_{fm}$ is the explained wage gap and the difference between $\hat{Y}_{fm}$ and $\hat{Y}_f$ is the unexplained wage gap. The value found for the unexplained wage gap is an upper bound on the amount of discrimination in the market. As a result of these known
and differentiated wage gaps one can see where crowding occurs and the size of the wage gap.

4. The Results

After running the regressions, what story is told by the data? From the data, many unique and sometimes surprising results occur. Our analysis will begin by looking at each variable to see what significant information it yields separately, and then we will look at the whole system to see what conclusions can be drawn.

Our first conjecture was that the presence of children under 18 will increase wages for men and decrease wages for women. Overall the data supports this conjecture. In 1997 and 1993 the female coefficient was negative, while the male coefficient was positive, which is what was predicated. Even though in 1985 and 1989 the coefficients were both negative, females had a larger negative value. In all years for females the coefficients stayed roughly constant at -2.3% and were very significant. The male coefficients moved from a -1.5% in 1985, at a highly significant level, to 1.4% in 1997 at a low level of significance. Thus, this reinforces the idea that, at least for wages, women are hit harder for having children while they remain in the work force.

Another conjecture that was tested in this model was the effect of being married on one’s wages. The conjecture is that married women will be paid less, as they now have a greater probability of having children and thus leaving the job. This conjecture ties into the previous conjecture about the effect of having children causing a negative effect on wages. This was tested to be false, as the value of the coefficients were positive for both females and males. However, the male coefficient, in every case, was higher than the female coefficient. All the coefficients for both females and males were highly significant in each year, even if they had drastically different ranges. The female coefficients ranged from 3% in 1985 to 5% in 1997, while the male ranged from 8% in 1989 to 12% in 1985. Interestingly enough, even though the values are not similar they followed the same trend of being up in 1985 and going down in 1989 and then remaining fairly constant in the 1990’s. In general this wage gap due to marital status has not been narrowing.

Education is a very integral part in the determination of one is human capital and thus wages. The results of this model reinforce that idea. In all cases across all levels of
education the data tells us that males and females both have similar returns to education. All of the education coefficients in all of the years are highly significant, which makes the results even more intriguing. This can be seen from the data, in that female high school graduates will increase their wages 15% to 18% over females with out a high school diploma, and similarly for males the range is 15% to 23%. For females with some college, that is an AA degree or any time in college, her increase in wages over females with out a high school diploma is 24% to 31%, and equally for males the range is 23% to 30%. Finally females with a bachelor’s degree or above will increase their wages by 45% to 60% over females with out a high school diploma, and likewise for males the range is 43% to 57%.

This result is somewhat counter-intuitive, since women in general receive lower returns to education. While true, the model excludes part time workers. If part time laborers were included, then one would expect to see lower returns to female investment in education. This is assumed to be due to women’s intermittent and sometimes sporadic work history, causing their wages to be lower given the same amount of education.

At first glance what one notices about the race coefficients is that, except in one case, they are all negative. This is to be expected as white is the omitted category, so being a race other than white will reduce one’s wages. However, there is more than that going on in this model. Curiously enough, the race coefficients are almost never significant for females, whereas black is highly significant for males in all years and other is moderately significant in 1985 and highly significant in 1993. Beyond looking at the levels of significance, the black coefficient for males ranges from -7% in 1989 to-12% in 1993, while the females range, from -.7% in 1993 to 1.2% in 1985. The coefficients for other also had a different range with males ranging from -1% in 1989 to -15% in 1993, whereas the females ranged from -2% in both 1989 and 1997 to -6% in 1993.

This difference between the sexes can be attributed to the fact that women of color have a double negative working against them in regards to wages, by being both female and a person of color. On the other hand, whereas men of color still have the negative effect on wages, they still, historically have had greater discrimination than females, which has not always been able to balance out by the positive effect of being male on
wages. A possible cause of this differentiated wage effect is due to higher discrimination from males to males.

Industry and occupational coefficients are able to add a different spin as to the location and possible cause of the wage gap. First, looking at industries, what one will notice is the sign of the coefficients. These signs indicate wages will increase or decrease for a specific gender in a specific industry over the omitted category of manufacturing. For females they will have higher wages by always being in the transportation industry at a highly significant average rate of 15% or by being in public administration at a highly significant average rate of 16%. Males will increase their wages over males in the manufacturing industry at the never significant rate of 2% by being in the agricultural industry and by being in the transportation industry at the same rate.

As wages can increase proportionally, they can also decrease proportionally. In 1985 females in the entertainment industry made 28% less than females in the manufacturing industry at a highly significant level. Moreover the one result that was the same for both males and females was that working in the retail industry would decrease one's wages over the same sex working in the manufacturing industry at a highly significant level of -14% for females and -17% for males. Male wages in the professional/finance, business, and entertainment industries will decrease their wages by -11%, -10.5%, -24%, respectively, at a highly significant level, over males in the manufacturing industry.

Now looking at occupations, one will notice many more similarities between female and male coefficients. Administrative/executive and science occupations are always positive for both male and female workers, while the laborers’ occupation is negative for both. This interesting reversal happens with the blue collar occupations and the teacher/nurse occupations, since for females the teacher/nurse occupation is positive and is split between both positive and negative coefficients for males. The reverse is true with males in blue collar occupations being positive and female coefficients in blue collar occupations are split between both positive and negative. It is also interesting to see that on average across the board a female in any of the occupations will have a larger increase in their wages over a female in sales/clerical service, the omitted category, than males in the same regard. The female coefficient for the administrative occupation is highly significant at 13%, while the male coefficient is moderately significant at 7%. For the
Megan Cornell

In the science/math/engineering occupational category, the female coefficient is highly significant at 26.5%, whereas the male coefficient is highly significant at 23.5%. In 1989 blue collar occupations, the female coefficient is moderately significant at 9% and the male coefficient is highly significant at 7%. The coefficient for teacher/nurse was, on average, highly significant for females with an average of 7.25%, as the male coefficient was never significant at a level of .7%. Lastly, the coefficient for laborers was highly significant for all years at a value of -15% and similarly, males had a coefficient of -17%, compared to the respective sex in the sales/clerical service occupation.

Two interesting things to notice from these results are that: One, females seem to be earning higher returns in occupational choice than males, but overall a wage gap still exists. This can possibly be explained by a combination of factors: differences in unobservable characteristics, possible discriminatory behavior, or simply lack of or lower returns to human capital. Two, from the value and spread of the coefficients it can be seen that stereotypical roles of women as teachers and nurses and men in blue collar occupations are confirmed.

Table 1  Hourly Wage Gap: computed from CPS Data for 1985-1997

<table>
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<th>Year</th>
<th>Y(f)</th>
<th>Y(m)</th>
<th>Y(fm)</th>
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<th>Unexplained</th>
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<tr>
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<td>$11.54</td>
<td>$1.89</td>
<td>$0.36</td>
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</tr>
<tr>
<td>1997</td>
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<td>$13.44</td>
<td>$13.37</td>
<td>$2.66</td>
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<td>$2.58</td>
</tr>
<tr>
<td>Average</td>
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<td>$11.27</td>
<td>$10.84</td>
<td>$2.25</td>
<td>$0.43</td>
<td>$1.82</td>
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</tbody>
</table>

How did the wage gap change over the years in this model? Overall there is a trend for the wage gap to stay constant over the 12 year period, as shown in Table 1. The only anomaly in this trend is the year 1997 where the total wage gap was $2.66, which is much higher than the $2.25 average that was found in the other years. Again, as a result of the 1997 wage decomposition, no actual trend can be found in the explained and unexplained differences, as the explained difference in 1997 was only $0.07 when the average is around $.50.
From this data we can gather that female and male wages have been increasing over the years, but they have been increasing proportionally so that the total wage gap has not changed much in the 12 years under observation. In the tables we see that the average wage gap over the 12 year period was $2.25. What can be learned from this is that the explained wage gap accounts for only 20% of the differences in wages, or $0.43. The unexplained portion, which is an upper bound for the amount of discrimination in the market, accounts for 80% of the difference or $1.82. So on average, the amount of unexplained difference in the market is greater than explained differences in the wages of females. This accounts for, assuming a 40 hour work week, an unexplained difference of $72.80 a week, and, assuming a 50 week work year, an unexplained loss of wages of $3,640 annually.

5. Conclusion
One general question that has been brought up in this paper is the idea of crowding—i.e., how many people are in an occupation—and are their wages being changed because of disproportionate numbers. By looking at the occupational coefficients, a small sample of this can be seen in that females are still disproportionately represented as teachers and nurses. Men remain disproportionately represented in blue collar craft and labor occupations. This effect of crowding changes the wage gap by the blue collar occupation coefficients for females not to be significant overall and barely increase wages for females over females who work in sales/clerical occupations. A similar effect on wages occurs for males working as a teacher/nurse. Overall the effect of crowding allows women to earn higher returns to their human capital investment within the teacher/nurse occupation and likewise for men in blue collar occupations.

Through this analysis it is clear that there is a problem, but the cause is indeterminate. It could be due to difference in human capital or it could be a result of discrimination. What is known for sure is that the degree of differences in the model can be seen through the wage gap. The unexplained portion of the wage gap is an upper bound on the amount of discrimination in the market. What is meant by that is the total difference is due in part to general market conditions and human capital difference as well as including some portion of the wage gap that is possibly due to discrimination.
Part of the assumption made in the introduction is that, *ceteris paribus*, women are being discriminated against. After analyzing the model this assumption can be seen more clearly, because overall the percentage change in coefficients for females and males seems to be roughly equal or males have a slightly more positive set of coefficients than females. This small difference in the coefficients is in no way able to account for the total wage gap of $2.25 that was found by the model.

There are other possible causes for this gap besides discrimination. Another explanation is the presence of immeasurable human capital characteristics. Such as one’s level of dedication, attitude at work, or how hard one works at their occupation. These all play a significant role in one’s wages, but in no way can be measured in a standard survey. The main causes of women’s wage discrimination are hard to capture by any sort of means. This kind of model, however, lends itself better to finding the value and maybe some of the reasons behind wage differences, but the cause is more masked than can actually be determined by econometric analysis alone. The limitations are due to the nature of the data as well as the problem itself.

Even if it were possible to include new variables to capture behavioral characteristics in the model, the wage gap is so large that it doesn’t seem like it would be able to explain everything away. It would be nice if one day there were no unexplained wage gap and women were fully included in the economy, but as the data shows now is not that time and saying that discrimination is non-existent in the economy doesn’t seem tenable in light of the evidence.

**References**


## Appendix: Regression Results

### Table of Coefficients for Females

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Table of Coefficients for Males

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Do Central Bankers Matter?: An Investigation into the Nature of Monetary Policy Decision-Making under an Inflation Targeting Regime—The Case of Brazil

By Daniel Conceicao
University of Missouri-Kansas City

Abstract: There is a growing consensus within mainstream monetary theory and policy-making. This “new consensus” argues that the sole responsibility of central banks is to maintain a low and stable rate of inflation. Within the new consensus, one of the most popular formulas for how monetary authorities may produce price stability is to adopt inflation targeting (IT). Though supporters of the “new monetary consensus” argue that economies are usually better served when monetary authorities determine the interbank rate of interest by following monetary policy rules, it is also the case that some discretion is considered necessary due to the likely incompleteness of monetary rules. Hence, even in the case of economies where the central bank follows a well defined reaction function as a monetary rule, one should not expect the interbank rate of interest to behave in a purely deterministic way. This paper intends to uncover the nature of monetary policy decisions by central bankers under an inflation targeting system, specifically in the case of Brazil. More generally, the focus of the paper is to determine, by use of traditional econometric procedures, the elements that jointly explain the behavior of the interbank interest rate since the adoption of IT in Brazil. The hypothesis ultimately intended to be tested is whether different decision-makers are likely to systematically make different decisions about economic policy under similar macroeconomic conditions.

1. Introduction

There is a growing consensus within mainstream monetary theory and policy-making. The currently dominant discourse in mainstream economics is that monetary policy should be implemented with the sole purpose of achieving price stability. According to the mainstream paradigm, money is believed to be neutral—at least in the long run—therefore, no good may possibly result from government intervention into the economy via the use of monetary policy. It
is held that government intervention directed toward monetary variables—namely, the setting of the interbank interest rate—will not have any lasting positive effects on real economic outcomes such as output, employment and capacity utilization. On the other hand, economic ‘evil’ will likely result from such intervention in the form of an unstable and accelerating price level. Inflation, though a monetary phenomenon, is believed to have real negative macroeconomic consequences. The less stable the economic environment is perceived to be by economic agents, the less likely they will be to make the real investments in productive assets necessary for the sustained growth and development of the economy. Hence, under the current dominant view within monetary theory, the best that a central bank can achieve vis-à-vis economic growth and development is try to maintain stable and low levels of inflation. Price stability, if not a sufficient condition for private initiative and free markets to produce desirable economic outcomes, is nonetheless believed to be a necessary one.

A common argument accompanying this rejuvenated free-market discourse is that of the desirability of rules over discretion for monetary and fiscal policy-making. Because of the non-technical nature of governments’ short sighted policy decision-making procedures and the risk of self-interested politicians impeding the achievement of longer-term economic goals, mainstream economists have argued for the imposition of clear rules as to how economic policy should be developed. Fiscal policy should be restrained by things such as balanced budget laws. As for monetary policy, a central policy prescription is the adoption of an independent central bank that is committed to the sole objective of achieving price stability. Even in countries where the central bank remains institutionally linked to the national government, there has been a growing tendency for central banks to become ‘de facto’ independent by the adoption of monetary rules that leave very little room for discretion. By far the most influential work supporting central bank adoption of monetary rules has been produced by John Taylor (1999). Popularly known as a “Taylor rule”, a central bank’s reaction function can be described as a mathematical model that determines monetary policy decisions in terms of observed macroeconomic indicators.¹ However, even the strongest supporter of monetary rules would admit that many of the variables

¹ There may be a number of different reaction functions adopted by different central banks as monetary policy tools available under different monetary systems are obviously unique. Illustratively, under a currency board type monetary system, a Central Bank’s reaction function could not be used to determine the basic interest rate as is the case under an inflation targeting type monetary system.
included in such a model often cannot be measured with precision or at all prior to the decision being made by the central bank. Still, Taylor-like rules are believed to be powerful instruments for guiding the ‘proper’ behavior of central bankers in implementing monetary policy.

Following this new monetary consensus, specific models and policy prescriptions have been developed to guide monetary policy-making in various real world economies. Implemented in such countries as Great Britain, Australia, South Korea and Brazil, inflation targeting (IT) systems have been gaining significant support among mainstream economists. Perhaps the most telling fact of the growing influence of the IT monetary doctrine, none other than Ben Bernanke, a seminal author in the development of the new monetary consensus and IT, has been appointed as Chairman of the Board of Governors of the United States Federal Reserve following former Fed Chairman Alan Greenspan’s retirement.

In order to achieve the goal of price stability, under an IT regime, the monetary authority defines a target rate of inflation that it announces to the public and for which it will be held accountable. Because it is fundamental to an IT system’s effectiveness that economic actors hold the policies of the monetary authority as credible, central banks are usually subject to a higher level of transparency and accountability than under other monetary systems. IT is expected to be efficient in promoting price stability because as the monetary authority is systematically successful in achieving its announced target rates of inflation, market expectations about future inflation rates begin to converge with the announced targets. With time it should become increasingly easier for the monetary authority to achieve its inflation targets as the target itself becomes an effective nominal anchor.

However, that the inflation target announced by the monetary authority becomes the nominal anchor that guides private agent’s expectations is obviously only part of the story. In order for expectations to be effectively influenced by the announcement of the target, it is necessary that policy instruments exist that allow the monetary authority to influence inflation in one way or another. Actually, more important than the effectiveness of the policy instrument in affecting inflation is the public’s positive perception of this effectiveness. Under the new consensus paradigm the policy toolbox available for governments to deal with inflation is rather limited. As the proclaimed guardian of the value of the currency, it should be the monetary authority that is responsible for actively influencing the rate of inflation, while the federal government should be kept from running budget deficits at all times. Inside the policy toolbox of the monetary authority
a single instrument exists to affect the rate of inflation: the setting of the primary rate of interest in the economy. By actively changing the interbank interest rate, it is believed that Central Banks are able to effectively influence other market interest rates by setting a lower bound. The effect from a change in the interest rate on aggregate spending results from the effect of changes in the rate of interest on investment and consumption expenditures. If interest rates are increased, aggregate spending is expected to fall and vice-versa. Hence, it is really aggregate spending that is believed to be necessarily affected by the monetary authority in order for inflation to be reduced. If inflation is too high, central banks should set a higher interest rate, since the reason for high inflation is believed to be excessive aggregate spending.

The idea that inflation can be reduced only by reducing aggregate spending makes sense only if the assumption is made that the economy is operating at full capacity – i.e., inflation is not of a “cost-push” nature. According to Philip Arestis, “[t]he position taken by IT on cost inflation is that it should either be accommodated, or that supply shocks come and go—and on average are zero and do not affect the rate of inflation” (2003, p. 14). However, the assumption of full capacity is a questionable one, especially in developing economies with very high official

2 Universally, the setting of the interbank rate is achieved by Central Banks via open market operations. The technical aspects of how the interbank rate is achieved are really irrelevant to the point presented in the paper. In fact, Central Banks are usually so precise in achieving the monthly targeted interbank rate that even daily rates hardly ever diverge more than a hundredth of a percentage point from the monthly target. For simplicity, the reader may just accept that a Central Bank is able to determine the interbank rate at the exact level it wishes.

3 That rising interest rates will generally produce a decrease in aggregate investment has been exhaustively explained since the works by Keynes. That consumption will be directly affected by interest rates, however, may require a more complete explanation. The first reason why one should expect consumption to be affected by changes in interest rates is that at least a portion of aggregate consumption is financed by credit and the cost of acquiring credit is obviously the rate of interest. However, a more important reason for interest rates to affect aggregate consumption follows from the reduction in aggregate investment. Those familiar with Keynes’s analysis should be well aware of the role of aggregate investment in determining aggregate income. Because aggregate consumption is a function of total income, that is private agents always consume a given portion of their income, the expected result from rising interest rates is a fall in aggregate investment, income and consumption.

4 The idea that only monetary policy may be used to affect inflation, though presented by mainstream economists as a quasi-tautology, should not be accepted by the honest economist without resistance for vast theoretical work has been developed by heterodox views of economics which consistently present fiscal policy as the more effective alternative for achieving price stability. For more on this, the reader may start with L. Randall Wray’s Understanding Modern Money (1998).
It is possible that using restrictive monetary policies to control inflation will make matters worse when inflation is of a cost push nature. Although total spending in the economy is reduced by a high interest rate policy, it is investment spending rather than aggregate consumption that is affected the most. Unfortunately, it is exactly these planned investment projects that should be stimulated in order for production “bottlenecks” – one of the causes of cost-push inflation – to be eliminated.\(^5\) This is not to say that producing a recession will not reduce inflation. One would expect a recession to be successful in reducing both cost-push and demand-pull inflation for the simple fact that recessionary processes will generally depress aggregate demand. However, to purposefully generate a recession is neither necessary nor desirable unless inflation is truly the result of the economy having reached full-capacity.

Regardless of the author’s critical view of how the problem of inflation has been dealt with by followers of the new consensus, especially in developing countries with very high unemployment rates, the purpose of the present paper is to unveil some aspects of how central banks which have adopted IT operate. As has been presented above, a central argument made by advocates of the “new consensus” is that monetary authorities should follow policy rules instead of discretion. Under the IT system, a simple “adaptive” monetary policy rule consists of a mathematical formula determining the interbank rate of interest as a function of observed inflation. However, the monetary authority may also try to anticipate inflationary pressures before higher inflation is actually observed by including in the reaction function all the macroeconomic variables believed to influence inflation in any way.\(^6\) Nonetheless, it is almost certain that even the most complete reaction function imaginable by economists will not be able to predict every single factor that may possibly affect the rate of inflation. Though almost certain to affect inflation, the very nature of extraordinary circumstances is that they cannot be

\(^5\) In Brazil, where the new monetary consensus is followed to the letter and IT has been implemented since 1999, the continually high interest rates implemented by the monetary authorities has caused consumption spending in 2004 to be reduced by 0.6%, while investment spending had been reduced by 3%. This motivated renowned Brazilian economist Joao Saboia to exclaim that the medicine was killing the patient faster than it was fighting the disease (2004).

\(^6\) If, in addition to maintaining price stability, the monetary authority was also committed to maintaining a high level of economic activity and employment and it believed that interest rates could affect economic activity as well as inflation it could follow a simple monetary rule that determined the interbank rate of interest as a function of observed inflation and indicators of economic activity and employment.
predicted. Natural disasters, wars and social unrest will probably introduce inflationary pressures of varying proportions and the proper response to such extraordinary circumstances by the monetary authority cannot possibly be given by a deterministic policy rule. Very few economists advocate for the blind adoption of monetary rules where discretion may not be used, even in the face of extraordinary circumstances. However, though each individual extraordinary condition is a rare event, it is possible that at any point the monetary authority will be forced to deal with some unpredicted event. In most cases, though a monetary rule may be used to guide policy, some discretion is necessary so that the monetary authority can efficiently address the unanticipated condition at hand.

If only simple Taylor-like rules were used by monetary authorities following the IT framework, a central bank’s reaction function would perfectly describe the observed behavior of the interbank rate of interest. However, the case has been made above that central bankers also require discretion when coming to their decisions about monetary policy. Hence, the more realistic description of how monetary authorities operate under IT is that their decisions are partly guided by a given monetary policy rule and partly guided by the central banker’s own perception of how monetary policy should be implemented under the observed set of conditions. Following this assumption, a Taylor-like reaction function can only partly describe the behavior of the interbank rate of interest through time.

Any number of unforeseen circumstances may affect monetary policy – from the outbreak of a war in the Middle East to a severe natural disaster in Asia. Even monetary authorities that follow well-defined monetary policy rules must be able to respond to the unique conditions imposed by such extraordinary events. One could be sure that a central banker’s own personal view or ideology would have absolutely no influence on monetary policy decisions if he were forced to blindly follow a well-defined policy rule. However, because even when a Taylor-like rule is used to guide policy decisions central bankers are still expected to use some discretion so that policy can be adjusted to unforeseen conditions, the possibility exists that different decision-makers, with different views of economics, may implement different monetary policies, even when facing similar macroeconomic conditions. The present paper attempts to address this very issue and poses the question: Do individual central bankers really matter for monetary policy outcomes that are determined under an IT system? As an analytical device, a simple econometric model is constructed to test for the influence of three kinds of variables on monetary policy
decisions under IT: a) the variables in the standard Taylor rule for IT, b) exogenous shock variables and c) the “central banker effect”. While the first two sets of variables are expected to be statistically significant determinants of monetary policy decisions, it is the test of significance of “central banker effect” variables that interest us the most, for the significance or insignificance of such variables may confirm or deny the relevance of individual central bankers for monetary policy decisions.

The paper is organized as follows. In section 2, a brief historical account of how inflation targeting became the monetary policy of the Brazilian government is provided. In section 3, the econometric framework and the model developed to test the hypothesis of whether “central banker effects” significantly influence monetary policy decisions is presented. Section 4 briefly presents the econometric results and some suggested interpretations. Section 5 concludes the argument.

2. Inflation Targeting in Brazil

Given the recent history of the accelerating inflationary processes that afflicted the Brazilian economy during the 1980s and early 1990s, it came as no surprise that the new monetary consensus would find enthusiastic reception from Brazilian policy-makers. The first stabilization process was initiated in 1994 with the introduction of the Real Plan. Part of the grander package of economic restructuring policies following the neoliberal agenda of the “Washington Consensus” – which included a significant reduction in the size of the public sector via the privatization of most state owned companies and the liberalization of foreign trade by the elimination of tariffs and other non-tariff barriers – the stabilization program introduced a new monetary arrangement that was successful in stabilizing the price level.

Though a very interesting piece of monetary architecture, the Real Plan is not the focus of the present paper. Relevant to the present analysis is the fact that the Real Plan had introduced as its main inflation fighting mechanisms the maintenance of an artificially undervalued exchange rate. The use of a fixed exchange rate anchor to control the price level, however successful during the early years of the Real Plan, eventually showed itself to be unsustainable, as it imposed a condition of extreme vulnerability upon a Brazilian economy facing the extremely volatile global economy of the mid-1990s. Under the exchange rate anchor, the Brazilian Central Bank (BCB) was committed to maintaining a significantly undervalued exchange rate in the hopes that the
‘pass through’ effect from imported goods to the whole economy would help maintain a stable price level as well as bring inflation expectations to a low and stable level. Maintaining such a low exchange rate required that the BCB was always able to meet the demand for international currency at the announced fixed rate. Hence, the ability of the BCB to sustain a monetary system based on a fixed exchange rate anchor was constrained by the amount of international reserves under its control. It may have been possible that under more tranquil international financial conditions, the BCB would have been able to sustain this kind of practice without periodically being the victim of ‘speculative attacks’ against its currency. However, with the Russian moratorium crisis of August 1998, the unsustainability of the Real Plan was exposed. The BCB could no longer attract the foreign capital which allowed it to protect the value of the real, except at the expense of devastatingly high interest rates. On January 15, 1998, the fixed exchange rate anchor was abandoned and the real was allowed to float. As a result, most of the BCB’s Board of Directors was replaced, with a new board eventually taking office in the beginning of March 1999. After a period of uncertainty about the new direction of monetary policy and the fear of returning inflation, this new group of decision makers started the transition towards an IT system. Finally, on June 21, 1999, Presidential Decree 3088 introduced IT as the official monetary regime for the BCB.

Under the Brazilian IT system, a National Monetary Council (CMN) — which consists of the Minister of Finance (Ministro de Estado da Fazenda), who is also the president of the council, the Minister of Economic Planning and Budgeting (Ministro de Estado do Planejamento e do Orçamento) and the President of the BCB (Presidente do Banco Central do Brasil) — meet regularly to define inflation targets for the year. According to the presidential decree, starting in 2002, the inflation targets had to be determined at least one and a half years in advance so that enough time was provided for economic agents to incorporate the targets into their expectations and behave accordingly. It was decided that the Broad Consumer Price Index (IPCA) reported by the National Bureau of Geography and Statistics would be the official price index to be used under IT. In addition to determining the target inflation rate for the year, the CMN also determines a tolerance interval within which observed inflation may oscillate.

The BCB is fully accountable for reaching the target inflation rate determined by the CMN. In practice this means that the BCB will make full use of its ability to set the interbank interest

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7 Exceptionally, the targets for the years 1999, 2000 and 2001 were defined until June 30th, 1999.
rate (Selic) to affect economic activity and maintain observed inflation within the tolerance interval set by the CMN. If observed inflation for the year falls outside of the tolerance interval, the President of the BCB is required by law to write an open letter to the Minister of Finance in which he explains the reasons for failure to meet the target rate, describes additional actions to be taken, and sets a new target.

The Council of Monetary Policy (COPOM) is the institutional body responsible for deciding the target Selic rate. It is formed by the President of the BCB (who has the tie braking vote) and all nine members of the bank’s board of directors. The COPOM meets regularly, with each meeting divided into two day long sessions. During the first day of discussions, the COPOM produces a thorough evaluation of observed macroeconomic conditions for the Brazilian economy and their expected impact on the price level. To assist with the analysis of the state of the economy, the chairman of each of the BCB’s departments (Chefes de Departamento) and members of research teams are present at this first day’s session. On the second day, only the members of the COPOM and the head of the Department of Economic Research (DEPEP) are present, the latter not being able to vote. After final considerations, the COPOM decides the value of the Selic to be targeted daily by the BCB via open market operations until the next COPOM meeting is held. The COPOM may also decide on a positive or negative bias for the Selic valid until the council’s next meeting. The determination of a bias allows the President of the BCB to change the interest rate in the direction of the bias any number of times between two COPOM meetings. Since IT was implemented in Brazil, the bias was used twice by the President to change the Selic rate before a COPOM meeting was held. Beginning in 2000, the COPOM started holding its meetings monthly. In 2006, with monetary policy makers having come to an agreement that IT had become mature enough in Brazil, the number of yearly meetings by the COPOM was reduced to eight.

Following each COPOM decision, detailed minutes of the meeting are made available to the public and to the press. The minutes present an analysis of the relevant macroeconomic variables used in making the COPOM’s decision. These detailed minutes have proved to be very useful instruments for the purpose of understanding the nature of the COPOM decision-making process. They present strong evidence that the interpretation of certain macroeconomic variables is key to guiding the decision made by the council. Not only do the minutes present an overview of the major macroeconomic variables that are likely to have impacts on the observed rate of inflation,
but other exogenous shocks believed by the COPOM members to be relevant to the issue of inflation. As an illustration, in the minutes for the September 2002 meeting, COPOM members identified that “the international scenario continues [to be] very unstable, with a corresponding reflection in the various segments of the international financial market by increased volatility. The accumulated losses in the stock exchanges in the last two years and the impact provoked by the accounting scandals of big U.S. corporations increased the fragility of the global economy. More recently, the expectations concerning a possible attack on Iraq have contributed to the uneasiness in the oil market, and prices returned to the level of US$30 per barrel. In this framework of instability and risk aversion, financing conditions have worsened for emerging economies, also affected by the decline in international trade” (Minutes of the 75th meeting of the Monetary Policy Committee).

3. Econometric Framework

A possible way of understanding the behavior of the BCB is to carefully read through the many minutes that summarize the analyses and interpretations of the macroeconomic conditions observed in the Brazilian economy at the time of each meeting which were ostensibly used to guide the setting of the Selic rate. At most, this path of research may only point to some macroeconomic variables that are more relevant than others in influencing monetary policy. However, econometric modeling exists which allows the economist to test whether there is in fact statistical evidence that the variable one supposes to be influential on monetary policy decisions is so. Therefore, a complete model should be constructed and estimated that describes the different values observed by the Selic rate.

Naturally, the first explanatory variables in the model presented below are derived from a standard Taylor rule. For even if there is no deterministic monetary rule in place, it is fair to assume that price index and capacity utilization measures have an impact on the decision made by the BCB. The use of a second set of explanatory variables in the model is intended as a control for exogenous shocks more likely to have influenced the path of the Selic. Finally, a third set of variables is introduced to represent COPOM group specific factors that may also influence monetary policy. These refer to the “central banker effect” on monetary policy and will
ultimately allow us to assess if in fact changes of policy-makers significantly impact monetary policy in Brazil.

*The Werlang, Tombini, Bogdanski Reaction Function*

In theory, the IT framework is believed to be effective in producing stable inflation because it produces a clear nominal anchor for the price level that is easily incorporated into economic agents’ expectations. For expectations about the future to be formed in this way, it is required that economic actors believe the central bank is both committed and able to reach its target rate of inflation. This is why most IT supporters are also proponents of institutionally independent central banks so that agents can rest assured that no other political goal may get in the way of the pursuit of the inflation target. However, even when the central bank is not institutionally independent, an elaborate legal framework may be developed to ensure that the monetary authority is constrained in developing monetary policy with the sole purpose of reaching its target rate of inflation. As an additional way of increasing the credibility of the IT system, central banks will try to make monetary policy as transparent as possible. In the case of the BCB, in addition to making the minutes of the COPOM meeting available to the public within a week of the last meeting, it produces several more detailed reports on monetary policy and on the performance of the IT system. Still, no deterministic reaction function has ever been provided in any report nor has the BCB ever admitted to using a perfectly deterministic Taylor-like rule. As mentioned above, though the BCB tries to make its policy-making increasingly transparent, it does not desire that economic actors be able to anticipate its monetary policy decisions with deterministic certainty. Financial markets do not perform well under conditions of extreme uncertainty, but they would also most likely perform even worse if individual agents’ expectations did not differ in any way. In fact, exchange of financial assets is only possible under conditions of diverging expectations. The condition commonly described as a “liquidity trap” should come to mind as an illustration of how converging expectations indeed produce negative economic outcomes. In a liquidity trap, similar expectations about a higher future value of the interest rate will cause economic agents to refuse to hold interest bearing assets in place of money. It is understandably feared by the BCB that if it was the case that economic actors had a forecasting instrument with deterministic or approximately deterministic predictive power, it would have severe adverse effects for the financial system. As of today, it may be that some of
the agents that operate in the Brazilian financial market have been able to estimate a very good approximation for a deterministic Taylor rule used by the BCB, either because they made use of sound empirical analysis or because they have access to privileged information. In any case, expectations by market agents about the Selic rate diverge enough for the Brazilian financial market to be as dynamic as almost any other market in the developing world.

Our purpose of attempting to understand the nature of monetary policy-making in Brazil requires that we specify a model believed to be the best possible approximation of the BCB’s reaction function. In order to do so, I have chosen the model developed by Werlang, Tombini and Bogdanski presented in their 2000 paper. In the paper, they describe the process of implementing the IT system by the BCB. It is worth mentioning that the authors of the paper were or still are influential members of the BCB. Werlang was a member of the COPOM for the first sixteen meetings following the implementation of the new system. Tombini has been a member of the last fourteen COPOM meetings. As Deputy Chief of the BCB’s Research Department, Bogdanski has attended a meeting of the COPOM as a consultant. In fact, other papers (Fachada 2001 and Araujo, Areosa and Guillen 2004) by BCB researchers cite Werlang et. al. as a major reference for understanding the behavior of the BCB under IT. After presenting a brief overview of the process of implementing IT in Brazil, Werlang et. al. describe a structural model “that has aided the monetary policy decision-making in the initial phase of the inflation-targeting regime in Brazil” (Werlang et. al. 2000, p.1). Therefore, instead of being used to produce deterministic outcomes for values of the Selic rate, the authors argue that the model was used mainly to simulate likely effects on relevant macroeconomic variables of different values of the Selic rate. Hence, even the complete structural Werlang et. al. model is claimed to be a guide, not a definite rule. A Taylor-type rule is one of many possible ways the Selic rate can be determined as described by Werlang et. al. In any case, a linear combination of system macroeconomic variables is presented and will be used hereon as the approximation of a likely Taylor rule used by the BCB under IT. This function is as follows:

\[ i_t = (1 - \lambda) i_{t-1} + \lambda (\alpha_i (\pi_t - \pi^*) + \alpha_2 h_t + \alpha_3 \]

Where:

- \( i \) is the natural log of the Selic rate
- \( \pi \) is the natural log of observed inflation (IPCA)
\[ \pi^* \] is the natural log of the inflation target
\[ h \] is the natural log of the output gap

The above reaction function is equal to the standard Taylor-rule (Taylor 1999) when \( \lambda = 0 \). For values of \( \lambda \) between 0 and 1, the reaction function is a Taylor rule with interest rate smoothing (Werlang et. al. 2000). As a rule, the reaction function should be interpreted as follows: the value of the natural log of the Selic rate for period \( t \) should be determined by the BCB as a linear combination of the natural log of the Selic rate at the previous period, the difference between the natural log of the IPCA observed at the time of the decision and the natural log of the inflation target prevalent at the time, and the natural log of the output gap measured at the time of the decision. An alternative specification was suggested by Rudebusch and Svensson (1999). Instead of reacting to observed inflation at the time of the decision, the central bank could also make estimates of expected inflation by economic agents and make use of that information to determine the interest rate. It is not necessarily true that monetary policy will be solely reactive or solely anticipatory. The more realistic assumption is that both observed inflation and estimated expected inflation are relevant for the COPOM decision about the Selic rate. However, for the purpose of estimating a tentative reaction function for the BCB, since expected inflation and actual inflation are strongly correlated with each other, this paper uses the reactive Werlang et. al. rule.

Data for the Selic rate and the IPCA are made available by the BCB.\(^8\) However, in order for an output (GDP) gap series to be obtained, a potential output historical series had to be constructed. Following Werlang et. al., the Hodrick-Prescott filter was applied to the GDP quarterly series to produce the potential GDP series. The output gap is found then by simply subtracting the observed output from the potential GDP.

External Shocks and Other Extraordinary Circumstances
As was argued above, since the standard Taylor rule ignores many unforeseen circumstances that should be taken into consideration by the monetary authority, a number of variables representing outstanding changes in economic conditions were included in the model. It is unlikely that any

\(^8\) A major resource for macroeconomic data relative to the Brazilian economy is found in the BCB website www.bcb.gov.br.
central bank will sit passively in the face of changing international conditions that are sure to affect the domestic macroeconomy. Hence, the inclusion of the first set of external shock variables is justified.

A common concern of COPOM members is to maintain real interest rate parity, since the non-observation of this condition may produce adverse and destabilizing effects in the financial markets. Simply put, real interest rate parity requires that the interest received on a financial asset minus observed inflation and the risk of default by the issuer is equal to the interest paid on other financial assets. Naturally, if real interest rates are perceived to be lower in one country than in another, money will flow from the country paying the lower rate to the country paying the higher rate. Because the basic rate paid by the BCB on the Brazilian federal government bonds sets the floor for other rates of interest in the economy, it is not a mystery that it is taken as the most accurate indicator of prospective financial gains in Brazil. For instance, if domestic inflation were to rise and the Selic rate remained the same, given stable risk assessments, inflation will cause the real rate of interest offered on Brazilian financial assets to be reduced relative to other countries’. Money would then likely flow from the Brazilian economy to countries where real interest rates were perceived higher, and the value of the real would be reduced. Consequently, the rise in the exchange rate would eventually produce inflationary pressures on domestic prices if not because of negative expectations with regards to the value of the domestic currency because of the pass through effect from imported goods to the price level.

A measure for country risk assessment is also used here. Because it enjoys strong credibility with market agents, a time series of JP Morgan’s Country Risk for Brazil has been chosen. Also,

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9 The risk assessment may also include a measure of likeliness for the exchange rate varying. Clearly, expectations about exchange rate variations should have an impact on the assessment made by economic agents when comparing real interest rates between different economies.

10 Another element that influences the relation between domestic interest rate and the interest rate in other economies is the rate of inflation observed in other economies. However, the effect of this variable on our model is ambiguous and possibly neutral. On one hand, because it reduces the real interest rates in other countries, rising international inflation reduces the need to increase the rate of interest. On the other hand, because it produces a rise in the cost of imported goods, international inflation may be transmitted to the domestic price level causing the Central Bank to respond by increasing the interest rate. Conversely, there is no ambiguity about the response by the Central Bank to rising domestic prices, at least under the new monetary consensus.
a measure of the interest rate practiced by other countries must be included. The obvious choice was to use a time series of the US Fed Funds rate\textsuperscript{11} as an increase in this rate most definitely influences other central banks in their attempts as to maintain real interest rate parity. Finally, changes in the international price of crude oil are believed to have strong impacts on the domestic price level, for oil derived inputs are used in most sectors of the economy. Several of the COPOM minutes have mentioned expected increases in the international price of crude oil as a reason for fear of inflationary pressures. An oil price variable was included in the model to control for its impact on the price level and on monetary policy decisions.\textsuperscript{12}

Though the BCB has adopted a floating exchange rate system, it responds to changes in the exchange rate only if this is likely to produce inflationary pressures due to the pass through from the prices of imports to the domestic price level. Theoretically, there is no monetary mechanism available to affect directly the exchange rate under IT.\textsuperscript{13} Therefore, the exchange rate may be treated as a truly exogenous variable, influenced only by the changing conditions of trade and payments between domestic and international agents. Data series of exchange rate variations are made available by the BCB.

The prospective of a new president coming to power is reason for uncertainty in any country. Most monetary authorities will likely behave differently during periods close to presidential elections than compared to periods of political tranquility. The period around Lula’s election in Brazil was especially tumultuous. Not only was Cardoso, the president responsible for implementing the successful stabilization program of the Real Plan, going to be replaced, but the person likely to become his successor was not an enthusiastic supporter of free market ideology. Under great uncertainty about the direction of monetary policy in Brazil, the BCB raised the Selic rate to much higher levels than the historical trend. Once it was made clear that Lula’s economic policy would be much like that implemented by his predecessor, agents of the

\textsuperscript{11} A time series for the Fed Funds rate was obtained from the New York Federal Reserve’s website.
\textsuperscript{12} A time series for the evolution of oil prices was obtained from the Energy Information Association’s website at http://tonto.eia.doe.gov/dnav/pet/pet_pri_wco_k_w.htm
\textsuperscript{13} That the interest rate is significantly affected by changing interest rates should need no more proof than the fact that under fixed exchange rate systems, the monetary authority makes use of interest rates mainly to maintain the targeted exchange rate. In a nutshell, higher interest rates will increase demand for domestic rather than international money because financial assets that will pay the higher interest rates may only be purchased in the domestic currency.
financial market once more felt safe to invest in short term financial assets.\textsuperscript{14} Clearly, a variable was needed that controlled for the very unique circumstances that marked the period around Lula’s election. A “Lula effect” dummy was used for the month of the election and four months before and after the election. Another election dummy variable was included to control for the period prior to the election that got Lula elected to his second term. Similarly, in the four months prior to the month of the election the dummy variable “election” was assigned.

Finally, a dummy was included in the model to control for the likely transition period necessary for both policy-makers and economic agents to adapt to the new monetary system after years of the alternative exchange rate anchor. The present study looks at observations beginning in June 1999, the month when inflation target was officially implemented in Brazil. However, immediately after the breakdown of the old monetary regime in January 1999, BCB members had already started to experiment with an IT framework. Nonetheless, the control dummy “IT” was used for the two first months of IT representing the beginning period of the new monetary experience in Brazil for policy-makers are likely to have behaved with more caution when the IT system was still a novelty to them.

\textit{The Central Banker Effect}

The last set of variables included in the model are intended to represent the policy-maker specific factors believed to have some influence on the value of the interest rate set by the BCB. I will refer to this set of variables as “central banker effect” (CBE). The hypothesis ultimately intended to be tested is whether different decision-makers are likely to systematically make different decisions about economic policy under similar macroeconomic conditions. Naturally, the greater the influence of monetary policy rules is the less likely different policy makers’ decisions are to diverge. However, even if we imagine that monetary rules are just guiding tools used in policy-making along with other instruments of economic analysis and forecasting, the impact of having a different group of decision-makers will not necessarily be significant. This would be the case if the form of discretionary policy-making was determined more by the organizational or institutional setting of the central bank than by individual decision makers.

\textsuperscript{14} The result of all the turmoil surrounding Lula’s expected victory in the presidential election was a period of very high financial gains for those who knew better than to be afraid.
Because the decisions about monetary policy are ultimately made by human beings, it is fair to assume that each individual’s personality, ideology and intuitions are relevant determinants of their decisions. Therefore, three competing elements could be said to influence the nature of monetary policy decisions: the theoretical instruments developed to guide the decision, traditional trends and constraints to individual action produced by the organizational setting of the central bank and “true discretion”. If different decision-makers are found to systematically produce different monetary policy responses to similar macroeconomic conditions I shall conclude that central bankers do matter for monetary policy.

I find it important to explain to the reader how the dummies that allowed controlling for the impact of the CBE on the Selic rate were generated. The number of decisions about monetary policy by the COPOM since the implementation of IT in Brazil adds up to eighty-nine. The number of members with voting power in each of the COPOM meetings has ranged from six to nine. Also, I have included in the set of observations the two instances in which the bias has been used by the President of the BCB, in which case the number of members responsible for the decision has been one. There have been two different presidents of the BCB since IT was implemented and 25 different people have been part of COPOM. A natural approach to identifying the impact of different COPOM members on the Selic rate would have been to include individual dummy variables for each person ever to have participated in a meeting and then estimate the impact of each person’s presence. An interactive variable of different observed combinations of COPOM members should also be included to account for the impact of different group dynamics between different people. Though the above would have been the optimal procedure, the number of observations of COPOM decisions does not provide enough degrees of freedom.

An alternative set of variables had to be developed then that did not require so many variables to be included in the model. Group dummy variables were created representing the different combinations of people that have formed the COPOM. The information that allowed for the group dummies to be generated was obtained from each COPOM minute which presents a list of all members present in each meeting. From each COPOM composition it was possible to identify that groups of decision makers would remain stable for relatively long periods of time if not for the occasional absence of one of the members. At any meeting it was probable that at least one member of the previous meeting would be absent. Two kinds of absence were
identified: temporary and permanent. In the case of temporary absences, the absent member would return in the next meeting. If the absence was permanent, the absent member would be likely replaced in future meetings by a different person but not necessarily at the next meeting. Hence, each COPOM “group” could be defined as any number of sequential meetings in which the absence by a member had not been permanent\textsuperscript{15}. Instead, group dummies have been determined in the model for sequential COPOM meetings in which no new member has been introduced to the group since the assumption was made that the more influential factor for changing “group view” is the presence of a new member rather than the absence of an old one. Defined as such, ten different group variables were introduced to the model.

Other variables to control for “central banker effect” are the use of the “bias” by the President of the BCB, one for the presence of an “interim president” as head of the council, one for the first meeting following the introduction of a new member and the number of members in the council. The “bias” dummy is necessary due to the fact that when using the bias, the President of the BCB does not need to consult the COPOM. If personal views of decision-makers are indeed a strong determinant of their decisions, to have his decision not constrained by the necessary approval by at least half of the members of the COPOM would likely cause the policy decision to be more strongly affected by the President’s view. The President is in all likeliness the most influential member in the COPOM, if for no other reason, because he holds the tie-breaking vote. Though only Arminio Fraga and Henrique Meirelles have been appointed as President of the BCB during the period, twice during the term of Fraga he was absent and another member of the COPOM served as interim president. It is possible that the monetary policy decisions under interim presidents are systematically different from those under the President. Therefore, a dummy variable was included equal for the case of an “interim president”. A “new group” dummy was necessary due to the fact that a newly formed group may behave differently at first until its members or the new member becomes used to the methods of

\textsuperscript{15} The distinction between permanent and temporary absences is central to defining the model’s group dummies. It should be clear to the reader that the absence of a COOM member due to vacation time carries a different meaning than the permanent removal of a COOM member. In the first case, though the member is absent, his view of the economy is not necessarily completely excluded from the COPOM decision. When a member is permanently removed from the council it is often the case that his view is no longer shared by the other members or that his influence on monetary policy decisions is no longer desired by those responsible for appointing COOM members.
Daniel Conceicao

policy making. Finally, the “number of members” variable was included since smaller groups may be more easily dominated by the influence of a stronger member, namely the President.

The Model

We now turn to the complete model. It describes the path of each observed Selic rate since the implementation of IT in Brazil and is composed of three classes of variables, the first class being the standard Taylor rule for IT, the second representing extraordinary changes in economic conditions or exogenous shocks, and the third representing the “central banker effects”. The complete econometric model to be estimated is:

\[
\begin{align*}
\text{(a)} & \quad i_t = \alpha + \beta_1 i_{t-1} + \beta_2 (\pi_t - \pi^*) + \beta_3 h_t + \\
\text{(b)} & \quad + \gamma_1 \text{CRISK}_t + \gamma_2 \text{EXRATE}_t + \gamma_3 i_{US}^t + \gamma_4 \text{OIL}_t + \gamma_5 \text{LULA} + \gamma_6 \text{election} + \gamma_7 \text{IT} + \\
\text{(c)} & \quad + \delta_1 \text{IPRES} + \delta_2 \text{BIAS} + \delta_3 \text{NEW} + \delta_4 \text{members} + \delta_5 \text{G1} + \ldots + \delta_6 \text{G10} + \xi
\end{align*}
\]

Part (a) of the model refers to the Taylor rule, part (b) refers to the exogenous shock variables and part (c) is the “central banker effect”.

Where:

- \(i_t\) is the natural log of the Selic rate at period \(t\),
- \(\alpha\) is the intercept of the function,
- \(\beta\)s are the Taylor rule coefficients,
- \(\gamma\)s are the parameters of the exogenous shock variables,
- \(\delta\)s are the parameters of the “central banker specific”,
- \((\pi_t - \pi^*)\) is the difference between the natural log of observed inflation (IPCA) and the target for that period,
- \(h_t\) is the natural log of the observed output gap estimated for period \(t\),
- \(\text{CRISK}_t\) is the natural log of the country risk measure by JP Morgan,
- \(\text{EXRATE}_t\) is the natural log of the observed exchange rate at period \(t\)
- \(i_{US}^t\) is the natural log of the US Fed funds rate at period \(t\),

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$OIL_t$ is the natural log of oil prices at time $t$,

$IPRES$ is a dummy variable for the presence of an interim president,

$LULA$ is a dummy variable for the period around Lula’s first election,

$election$ is a dummy variable for the period prior to Lula’s second election,

$IT$ is a dummy variable for the first two COPOM decisions after IT having been implemented,

$BIAS$ is a dummy variable for observed changes in the Selic rate by the BCB’s President’s use of the bias mechanism,

$NEW$ is a dummy variable for the first COPOM meeting with a new composition,

$members_t$ is the natural log of the number of members of the COPOM present in the meeting, and

$G1...G10$ are the group dummy variables for different COPOM compositions.

4. Econometric results

Before a linear regression of the above model could be run, a rather problematic issue had to be dealt with. Naturally, the lagged value of the Selic rate must be strongly correlated with the observed value of the price index for it is the very goal of the monetary authority to influence the price level by changing the value of the Selic rate. In fact, the lagged Selic rate is very likely correlated with a number of other variables in the model – namely the output gap and the exchange rate. A solution to this problem was to use an instrumental variable to replace the lagged Selic rate. In this case, lagged inflation (IPCA) was used as an instrument. Obviously, as the lagged Selic rate is partly determined by the lagged rate of inflation, they must necessarily be strongly correlated with each other. However, that the lagged rate of inflation is correlated to the other explanatory variables is almost as likely as for them to be correlated with the lagged Selic rate. Nonetheless, no alternative variable was available that fitted the description of a “good” instrument.

The above mentioned problem having been addressed, the following econometric experiments were developed. First, the model was estimated with the imposed restrictions of the parameters of both the external shock and the “central banker effect” variables set equal to zero. In other words the fitness of the standard Taylor rule was tested as an explanatory model for different observed values of the Selic rate:
The above results should make clear that the simple standard Taylor rule for IT is most likely not used in any deterministic way by the BCB. It is rather obvious that measured inflation has a systematic influence on the setting of the Selic rate. However, the measure for capacity utilization used in the standard Taylor rule is statistically insignificant. The hypothesis that the BCB uses the standard Taylor rule as an actual rule may be here rejected. Nonetheless, it is possible that measures for capacity utilization other than the output gap are used by the BCB for the purpose of guiding monetary policy decisions. In an attempt to test if that is the case, an alternative measure for capacity utilization has been used. Estimated by the Brazilian Institute for Applied Economics (IPEA), a measure for the proportion of installed industrial capacity under utilization may be a better indicator of capacity utilization. The alternative Taylor rule includes, instead of the calculated output gap, the IPEA measure of capacity utilization. The results for this adjusted Taylor rule were found to be the following:
Analysis of Variance

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
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<td>1.548666</td>
<td>0.516222</td>
<td>404.97</td>
<td>&lt;.0001</td>
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<tr>
<td>Error</td>
<td>83</td>
<td>0.105802</td>
<td>0.001275</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>86</td>
<td>1.654468</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Root MSE 0.03570  R-Square 0.93605  Dependent Mean 2.91020  Adj R-Sq 0.93374  Coeff Var 1.22683

Parameter Estimates

| Variable      | DF | Parameter         | Standard Error | t Value | Pr > |t| Label | Variable      | DF | Parameter         | Standard Error | t Value | Pr > |t| Label |
|---------------|----|-------------------|----------------|---------|------|------|---------------|---------------|----------------|----------------|---------|------|------|------|
| Intercept     | 1  | -5.52504          | 3.271701       | -1.69   | 0.0950 | Intercept     | Intercept     | 1  | 0.977406          | 0.033339       | 29.32   | <.0001 | LSELIC_1 | LSELIC_1 |
| LSELIC_1      | 1  | 0.015297          | 0.004342       | 3.52    | 0.0007 | LIPCA_LIT     | LIPCA_LIT     | 1  | 0.410273          | 0.237079       | 1.73    | 0.0873 | LCU    | LCU    |

Though the alternative IPEA measure for capacity utilization performs better than the output gap in explaining the different observed values of the Selic rate, it was still found to be statistically insignificant at the 5% confidence level. That measures of capacity utilization should be found to be statistically insignificant in determining monetary policy decisions is not completely unexpected. It is required that we keep in mind that under the new monetary consensus there is no role for monetary policy in trying to achieve real macroeconomic goals. Therefore, the presence of a measure of capacity utilization in a central bank’s reaction function does not mean that the monetary authority will respond to increasing measures of productive capacity idleness in an attempt to reduce unemployment. Because under this theoretical view money is believed to be neutral, it is assumed that even if the monetary authority were concerned with real economic outcomes it could do nothing. Hence, it is because high levels of capacity utilization are believed to produce inflationary pressures that the standard Taylor rule includes the output gap variable. Accordingly, Libanio (2006) found that central banks are more likely to respond to changes in economic activity when the economy is experiencing rapid growth. As it is mainly concerned with keeping inflation low and stable, the central bank sees no threat to price stability when the economy is operating at a level much lower than full capacity. However, if it sees that the economy is moving closer to full capacity utilization, it will respond by increasing the basic interest rate in order to reduce aggregate spending in an attempt to neutralize inflationary pressures. Because the Brazilian economy has experienced sluggish economic
growth since IT has been implemented, the BCB has had no motive to respond to changing levels of capacity utilization. Hence, a Taylor rule that better fits the data from stagnant economies is one that determines the interest rate only as a function of the rate of inflation.

Next, the complete model was estimated producing the following results:

```
The SYSLIN Procedure
Ordinary Least Squares Estimation

Model  LSELIC
Dependent Variable  LSELIC
Label  LSELIC

Analysis of Variance

Source        DF     Sum of Squares    Mean Square    F Value    Pr > F
Model         21    1.600564        0.076217       91.91    <.0001
Error         65    0.053904        0.000829
Corrected Total  86    1.654468

Root MSE         0.02880
R-Square        0.96742
Dependent Mean   2.91020
Adj R-Sq         0.95689
Coeff Var        0.98953

Parameter Estimates

Variable       DF     Parameter Estimate    Standard Error    t Value    Pr > |t|    Variable       DF     Parameter Estimate    Standard Error    t Value    Pr > |t|
Intercept      1     -0.92275        0.386353        -2.39    0.0198
LSELIC_1      1     1.062792        0.056295        18.88    <.0001
LIPCA_LIT     1     0.000879        0.004914        0.18    0.8585
LOUTGAP       1     0.000164        0.002313        0.07    0.9438
LCRISK        1     -0.01002        0.030358        -0.33    0.7425
LEXRATE       1     0.164097        0.100111        1.64    0.1060
LUSIR         1     0.047511        0.022996        2.07    0.0428
LOIL          1     -0.01103        0.038991        -0.28    0.7782
LULA          1     0.034406        0.021325        1.61    0.1115
ELECT         1     -0.00999        0.025671        -0.39    0.6985
IPRES         1     0.018714        0.022579        0.83    0.4102
NEW           1     -0.00057        0.011688        -0.05    0.9616
MEMBERS       1     0.002855        0.003226        0.89    0.3794
G1            1     -0.08035        0.030651        -2.62    0.0109
G2            1     -0.02384        0.017522        -1.36    0.1784
G3            1     -0.02528        0.017538        -1.44    0.1543
G5            1     0.006907        0.021312        0.32    0.7469
G6            1     -0.04422        0.034656        -1.28    0.2066
G7            1     0.016810        0.041454        0.41    0.6864
G8            1     0.017566        0.039256        0.45    0.6560
G9            1     -0.02218        0.043293        -0.51    0.6102
G10           1     -0.02255        0.052723        -0.43    0.6703
```

Though the t values suggest that none of the added variables besides the rate of inflation, when considered individually, is statistically significant for explaining monetary policy decisions, the higher R Square statistic suggests that the set of variables used in the model, when
taken as a whole, captures more effectively the systematic elements that affect the setting of the Selic rate by the BCB. By using a standard F test, one is able to determine if there is statistical evidence that a group of variables is statistically significant in a given model specification. In the F test, the statistical significance of the three different groups of variables — i.e., the Taylor rule, exogenous shocks and the “central banker effect” — has been tested and the following results were obtained:

The F statistic for the hypothesis that the parameters of the Taylor rule variables are not significant was found to be 117.513. No surprise here, for we had already found the Werlang et al. reaction function to be fitting to explaining Selic rate variations. The F statistic for the hypothesis that the parameters of the exogenous shock variables are not significant was found to be 4.6173. Again, the fact that the shocks are significant and systematically influential on COPOM decisions was expected, since most of the shock variables included in the model were mentioned in COPOM meeting minutes as justifications for specific monetary policy decisions.

Finally, the F statistic for the hypothesis that the parameters of the “central banker effect” variables are significant was found to be 1.71277. These results point to the fact that “central banker effects” are likely not a significant determinant of monetary policy decisions in Brazil under IT. Hence, the answer given here to our question of whether central bankers matter to monetary policy decisions under IT is that they do not. However, we should not so quickly discard the possibility that individual decision-makers may influence monetary policy under the IT system in Brazil. Instead, it may be the case that the number of changes in the COPOM groups has been too small for a systematic impact of such changes to be identified. In addition to this, it is likely that, despite the apparently democratic structure of the COPOM, because the BCB’s president is overwhelmingly the most powerful figure on the council, his position dominates. Therefore, a better test for the significance of “central banker effects” would be one that looked not at the impact of different COPOM members on the Selic rate, but rather of different Presidents of the BCB. Unfortunately, the fact that only two presidents have been appointed to the BCB since IT has been implemented does not allow for a trustworthy empirical study of these impacts at this point.

5. Conclusion
When, in the beginning of March 2007, the director of the Brazilian Central Bank Afonso Bevilaqua resigned, many Brazilian economists predicted that monetary policy would become “less conservative”. Because Bevilaqua had long been identified as a leading supporter of tight monetary policies, a large number of economic analysts saw his departure from the BCB’s board of directors as reason to expect the Selic interest rate to be reduced by future COPOM decisions. Though the author would be favorable to a monetary policy that imposed fewer constraints on investment expenditures and economic activity, the results presented above suggest that no systematic change in monetary policy should be expected as a direct result from the departure of a more conservative member of the COPOM. The prediction made by Brazilian economists is based on the premise that the individual decision-maker’s view of economic issues is a decisive factor on how economic policy will be undertaken. However, our results suggest that such is not the case for monetary policy under the IT system in Brazil. Because we have not found monetary policy to be influenced by any “central banker effect”, the impact from Bevilaqua’s departure on the way monetary policy is undertaken should be minimal.

Interestingly enough, even if our results can be trusted and “central banker effects” do not significantly impact monetary policy, there is reason to believe that Bevilaqua’s departure will influence monetary policy. One reason for this is the fact that the specialized media and market analysts have also associated Bevilaqua’s departure with the weakening of the Brazilian government’s commitment to maintaining a low and stable level of inflation. Ironically, if expectations of higher inflation become generalized, the BCB may find itself forced to practice an even tighter monetary policy as a result of the departure of its most conservative member.

If anything, the discussions generated by Afonso Bevilaqua’s departure from the BCB should serve as stimulus for more work to be developed on the nature of monetary policy under IT. Though some evidence has been presented here against the influence of “central banker effects” on monetary policy, the evidence is not strong enough for any final conclusion to be made of how individual central bankers may affect monetary policy decisions under IT. Hopefully, more investigative work in this area will be done by this and other economists so that a more complete understanding about the nature of monetary policy decisions under IT is gained.
References

Appendix: Regression results used for the F test

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<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
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<tr>
<td>Model</td>
<td>9</td>
<td>1.583253</td>
<td>0.175917</td>
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<tr>
<td>Error</td>
<td>77</td>
<td>0.071215</td>
<td>0.000925</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>86</td>
<td>1.654468</td>
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</tr>
</tbody>
</table>

Root MSE 0.03041  R-Square 0.95696
Dependent Mean 2.91020  Adj R-Sq 0.95192
Coeff Var 1.04500
### Parameter Estimates

| Variable      | DF | Estimate | Standard Error | t Value | Pr > |t| Label          |
|---------------|----|----------|----------------|---------|-------|----------------|
| Intercept     | 1  | -0.74580 | 0.279650       | -2.67   | 0.0093| Intercept      |
| LSELIC_1      | 1  | 0.916167 | 0.030497       | 30.04   | <0.001| LSELIC_1      |
| LIPCA_LIT     | 1  | 0.003405 | 0.004609       | 0.74    | 0.4622| LIPCA_LIT     |
| LOUTGAP       | 1  | 0.001613 | 0.002175       | 0.74    | 0.4606| LOUTGAP       |
| LCRISK        | 1  | 0.000224 | 0.018755       | 0.01    | 0.9905| LCRISK        |
| LEXRATE       | 1  | 0.191593 | 0.030497       | 30.04   | <0.0001| LEXRATE      |
| LUSIR         | 1  | 0.037958 | 0.010258       | 3.70    | 0.0004| LUSIR         |
| LOIL          | 1  | 0.008367 | 0.004609       | 0.45    | 0.6565| LOIL          |
| LULA          | 1  | 0.023703 | 0.020953       | 1.13    | 0.2615| LULA          |
| ELECT         | 1  | -0.03915 | 0.018408       | -2.13   | 0.0367| ELECT         |

---

### Analysis of Variance

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Pr &gt; F</th>
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<tr>
<td>Model</td>
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<td>1.577230</td>
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<td>96.66</td>
<td>&lt;.0001</td>
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<td>Error</td>
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<td>0.077238</td>
<td>0.001088</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>86</td>
<td>1.654468</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Root MSE: 0.03298
- R-Square: 0.95332
- Adj R-Sq: 0.94345
- Coeff Var: 1.13335

---

### Parameter Estimates

| Variable      | DF | Estimate | Standard Error | t Value | Pr > |t| Label          |
|---------------|----|----------|----------------|---------|-------|----------------|
| Intercept     | 1  | -0.29708 | 0.153985       | -1.93   | 0.0577| Intercept      |
| LSELIC_1      | 1  | 1.099373 | 0.053641       | 20.50   | <0.001| LSELIC_1      |
| LIPCA_LIT     | 1  | 0.009151 | 0.004739       | 1.93    | 0.0575| LIPCA_LIT     |
| LOUTGAP       | 1  | -0.00120 | 0.002430       | -0.49   | 0.6227| LOUTGAP       |
| IPRES          | 1  | -0.00627 | 0.024595       | -0.25   | 0.7995| IPRES         |
| NEW            | 1  | -0.00131 | 0.012521       | -0.10   | 0.9167| NEW           |
| MEMBERS        | 1  | 0.003075 | 0.003586       | 0.86    | 0.3940| MEMBERS       |
| G1             | 1  | -0.08556 | 0.028439       | -3.01   | 0.0036| G1            |
| G2             | 1  | -0.01501 | 0.016663       | -0.90   | 0.3709| G2            |
| G3             | 1  | -0.02533 | 0.016913       | -1.50   | 0.1387| G3            |
| G5             | 1  | -0.00596 | 0.014062       | -0.42   | 0.6731| G5            |
| G6             | 1  | -0.08084 | 0.022280       | -3.63   | 0.0005| G6            |
| G7             | 1  | -0.01381 | 0.014686       | -0.94   | 0.3501| G7            |
| G8             | 1  | 0.001954 | 0.016142       | 0.12    | 0.9040| G8            |
| G9             | 1  | -0.04135 | 0.014640       | -2.82   | 0.0061| G9            |
| G10            | 1  | -0.02226 | 0.023114       | -0.96   | 0.3388| G10           |

In economics there is a strange tendency for theories that have been discredited by evidence to disappear from the scene only to come back with different names. Another page in economics has turned: Monetarism is gone and the quantity theory of money has been abandoned. Instead, the so-called New Consensus or New Keynesian synthesis has emerged. Many New Keynesian economists have adopted the idea of an endogenous money supply that was long circulated by Post-Keynesian economists. Central bankers today set interest rate targets rather than keep track of monetary aggregates. But is this New Consensus really different from Monetarism or is it “Monetarism without money”? In the background of debates about endogenous money, inflation targeting, interest rate operating procedures and central bank independence, *Central Banking in the Modern World* is a very interesting and insightful book that anyone interested in monetary economics should read.

The book is mainly concerned with the political economy of central banking. It is conveniently divided into three parts. The first part, “The New Consensus”, explains in several ways the essence of the New Consensus model. The main idea that can be traced through all four chapters of the first part is that the New Consensus, though adopting the idea of endogenous money, still comes to Monetarist conclusions with respect to policy effects. The second part, “Transmission Mechanisms”, analyzes and successfully criticizes the transmission mechanisms of the monetary policy assumed by the New Consensus. The concluding part, “Historical Perspectives”, contains several interesting chapters that, while providing a historical perspective, are still relevant for modern central banking.

The editors’ introduction is followed by a chapter by Marc Lavoie. The main argument of his piece is that, though the idea of endogenous money has been adopted by most New Keynesian economists, their overall understanding of macroeconomics is still Neoclassical—namely, that monetary policy has real effects in the short run but is neutral in the long-run and fiscal policy leads to crowding out by raising interest rates. As a good-old monetarist would argue, the only impact of monetary policy in the long-run is on the inflation rate.

Lavoie explains the New Consensus model with three simple equations. However, he stresses that there is a fourth equation not explicitly stated, but implied: the natural rate of growth is
determined strictly by supply-side factors. Making the long-run trend of growth dependant on demand, however, changes the results of the model, bringing about hysteresis and path-dependence effects and, thus, leaving room for policy.

The contribution by Mark Setterfield furthers the ideas developed by Lavoie. Setterfield points out that, in the framework of the New Consensus, interest rate setting is supposed to be a policy choice. It is assumed that interest rate targeting is simply more preferable to money supply targeting because of unstable money demand. Post-Keynesians, however, rightly argue that central bankers don’t have a choice between controlling the interest rate and controlling the money supply—they simply cannot control the money supply. As monetary policy has long-lasting effects on real variables, the important question then becomes what interest rate target to set in view of an endogenous money supply.

The contribution of Philip Arestis and Malcolm Sawyer discusses the ability of a central bank to control inflation. The authors provide a few points of criticism. Particularly, it is not as obvious as the New Consensus assumes that inflation is mostly demand-driven. Second, even if that is the case, how effective is monetary policy in affecting aggregate demand? And finally, fiscal policy can be a more useful tool if the purpose is to effectively manage aggregate demand.

The effects of interest rate changes on the rate of inflation are not unambiguous and depend on a number of factors. The authors point out that if central banks were able to manipulate the interest rate so that savings and investment were equal at levels corresponding to full employment, then there would be no deficient aggregate demand problem. However there are several reasons why this can’t be the case. The power of monetary policy to deal with large fluctuations in aggregate demand is dubious. Fiscal policy, on the other hand, has a larger and more certain impact on the level of aggregate demand. It can be a powerful stabilizing tool and can provide a “floor” for the economy.

The second part of the book examines the transmission mechanisms of monetary policy under an interest rate operating procedure, or more precisely what central bankers believe these transmission mechanisms to be. It starts with a chapter by Robin Rowley and Brenda Spotton Visano which discusses the case of the Bank of Canada. The Bank of Canada believes that by setting the interest rate it affects a range of interest rates and through them the exchange rate. These, in turn, affect total spending. The role of expectations is particularly stressed. In view of this fact, the authors rightly argue that if the transmission of policy depends on the expectations of agents who happen to make decisions in an uncertain world, then the end results of policy
actions cannot be so precise and predictable. A careful analysis of several non-official studies by the Bank of Canada shows that there is no consensus within the bank as to what is the transmission mechanism. If the transmission mechanisms are not clear, then the influence the bank has on prices can’t be expected to be as predictable as the Bank claims.

The next chapter, by Marc-André Pigeon, also examines the case of the Bank of Canada. The belief held by the Bank is that low rates of inflation contribute to economic growth and employment, the reason being the disruptive influence of inflation on price structure as well as so called menu costs—a typical New Keynesian argument. Thus, the Bank sees its only responsibility as stabilizing the rate of inflation, though that’s not the only role envisioned by the Bank of Canada Act. The reason for this is the bank’s belief in the Non-Accelerating Inflation Rate of Unemployment (NAIRU). Nevertheless, the bank doesn’t release information on the way NAIRU is estimated or on the current estimate of NAIRU. The author hits a very important point here, stating that the Bank is avoiding the responsibility of maintaining full employment by saying that it should be achieved by labor market reforms that would make it more flexible. Though Pigeon discusses the case of the Bank of Canada, this can as well be said of the Federal Reserve Bank. The conclusion is that even if the Bank tries to deny its political nature, its actions still affect income distribution, wage setting behavior, etc.

The book doesn’t have a concluding chapter. Nevertheless, the main theme of the book can be clearly traced in the contributions of the various authors. The New Monetary consensus implicitly adopts an endogenous money approach. Central banks today believe that they have a choice between targeting interest rates and targeting the money supply with the former being more preferable. The book provides a good heterodox critique of the New Consensus, its transmission mechanisms as well as policy implications. It could be a good supplementary reading for monetary theory and policy courses. Everyone interested in monetary economics, its recent developments and controversies, should read this book.

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The goal of Jenkins and Plowden’s book is to analyze the role of international agencies and governments in governance and nationbuilding. It traces out the history of international intervention and examines the roadblocks to the success of public-sector reform. It also analyzes the asymmetries that exist between recipient or host nations and donor nations or institutions when it comes to international aid for government or public-sector reforms. It acridly criticizes international intervention by drawing on examples of several international agencies, most notably, the Department for International Development (DID) of the British government. This focus on the DID, in my estimation, stems from the fact that the authors have a great deal of experience with the British system, given the fact that they are both professors of the government department at the London School of Economics. Also, I feel that their focus on the British government’s interventionist approach stems from Britain’s influence on the Commonwealth of Nations. The book, despite its focused critique on international intervention, argues that the evaluation, though cumbersome, could yield important insights that should be heeded to improve governance and nationbuilding in the future. Issues like the role of existing institutions, the history of countries and the significance of culture are addressed as possible avenues that could yield significant answers to the restructuring of international intervention.

In the first and second chapters, Jenkins and Plowden define governance as “the activities of governments, whether democratically elected or brought to power by a military coup” (p. 8). Good governance will thus be adjudicated by the ability of the government to provide for its citizens the basic necessities of life: defense, food and drink, education, health care, a justice system and other basic services that institutional economists argue further the life process of the citizens of that nation. The authors acknowledge that nationbuilding can be defined in various ways, but they agree that, “It invariably involves the intervention by an outside power in the internal workings of a state” (p. 1). They note that it is mostly characterized by military action to rebuild a state whose internal workings do not allow it to provide for its citizens due to an oppressive regime or factors such as debt and a deficient public sector. The authors offer nationbuilding precedents like Germany and Japan after WWII. They note that the end of the war
marked a regime change for these nations and they mostly adopted the governance approaches of the Allies, as in the case of Germany and Japan. They note that in Japan some institutions were not changed, e.g., the Emperor. Thus Japan’s nationbuilding took off while being buttressed by an important institution in their history.

The third and fourth chapters discuss the providers, or donors, of aid and the recipients, or host nations, of aid. The main providers are international organizations like the World Bank, the International Monetary Fund, the United Nations, the European Union and the Organization for Economic Cooperation and Development (OECD). Bilateral providers of aid like the United States, France, Germany, the Netherlands and Britain are also significant for sectoral reforms. The authors note that each country approaches the question of intervention differently. For example, they note that the United States is notorious for intervening with its military might, while Britain is noted for intervening through the supposed superiority of its civil service and its stronghold on the Commonwealth of Nations. Other providers of aid or intervention include the Stiftungen, Open Society Institute, Ford Foundation, Project Liberty and the Westminster Foundation for Democracy. The authors argue that there is some inconsistency and lack of coordination in the donors’ operations in their respective spheres of influence. This is because of the ambiguity that exists in their aims and objectives and the overlooking of social conditions like apartheid and corruption when initiating aid.

“Donor organizations provide most of the resources in the relationships that determine the distribution of aid to improve government” in host nations (p. 48). Most, but not all, of these host nations are in Sub-Saharan Africa or are part of the so called Heavily Indebted Poor Countries (HIPC)—countries like the Czech Republic and other eastern European countries have been beneficiaries of aid to improve their governments as well. The relationship between recipients and donors is also discussed in chapter 4. Jenkins and Plowden argue that because of conditionalities like the infamous structural adjustment programs that are often tied to aid, the relationship between donors and recipients is soured. However, some recipients depend heavily on aid to support government expenditures; thus they are caught in a bind. “Aid is equivalent to 24 per cent of central government expenditure in Bolivia, 77 per cent in Uganda and even more in Mozambique where this ration peaked at 150 per cent in 1998-99” (p. 54). Jenkins and Plowden argue that because of the huge involvement of donors in the governments of these nations, the relationship between the donor agencies and governments are sometimes closer than
the relationships with the governments themselves. Problems arise when a country receives aid from several donors since some donors may have conflicting aims and objectives on how to institute public sector reform. Examples include Tanzania and Zambia with over 50 bilateral donors each of which required individual management of the relationships. This is like having 50 girlfriends or boyfriends in some sense and having to heed to each of their wants in order to maintain the relationship. The authors also assert that the relationships are heavily dependent on history, geography and mutual benefits. This is evident in the case of Britain. Most of Britain’s aid goes to members of the Commonwealth of Nations.

Chapter 5 examines the system and objectives of aid to improve government. The authors note the shift of attention from development objectives after the world wars to civil service reforms aimed at achieving good governance. The objective has focused on government activities that are pro-poor and promote the ideals of good governance discussed earlier. Poverty reduction and the development of Poverty Reduction Strategy Papers has been an objective and the Millennium Development Goals promulgated in the year 2000 are major objectives of donors. Jenkins and Plowden argue that for the most part the role of donors has been authoritarian in that they tend to ignore the local customs when seeking projects to fund and this creates some tension between them and the host nations. They argue that, for most bilateral donors, country representatives or so called government advisers are housed in the capital cities and specifically at the embassies and thus loose a great deal of information on how best to reform governance in those countries. The authors also discuss the difficulties that arise when contracts are finally negotiated. Implementation becomes difficult and thus the successes of programs are heavily compromised. They argue that “the teams actually employed on projects may know little or nothing of the history, culture or politics of the country in which they work…they may include no local citizens… they may not speak the language of their clients” (p. 77). This presents a problem when the contractors or architects of governmental reform are heavily disadvantaged. Thus local representation and coordination could play a significant role in achieving nationbuilding and good governance. Another key issue discussed is the role of sequencing with respect to donor objectives and activities in host nations. If the sequence in which the interconnecting parts of a system are to change is not correct, there will be immense implications for many parts of the system. Sequencing, they argue, has led to a shift from major
projects to a series of small projects that allow for more precision and better implementation of project goals. Sector Wide Approaches (SWAPs) are also becoming significant.

A key part of the book addresses the evaluation and outcome of projects. Donors spend a fortune on aid; thus it is important that they are aware of mistakes so as to mitigate their effects in future commitments. Jenkins and Plowden argue, however, that most of the evaluations processes of donors are insufficient and thus create a situation where learning is limited. Logical frameworks, used by organizations like USAID and CIDA, are riddled with problems as they do not allow for flexibility. Thus when measuring improvements in a project, recommendations are insufficient and reports are inadequate in offering information on the types of reforms needed. The authors note that projects do not need elaborate analysis but instead require an awareness of what is happening from evaluation to make it a success. “In Ghana in the early 1990s there were elaborate and expensive plans for new courthouses which were stalled because all of the other interests involved in planning and construction. What courts really needed was recording machines and shorthand writers” (p. 97). This situation could have been alleviated with good evaluation of the legal system in Ghana as opposed to having elaborate analyses of what the courts ought to be. The authors assert that most donors are aware of the flaws in their evaluative processes and their failure to integrate ideas from evaluation processes into their operations is what prevents them from learning from their past experiences

The authors harp on the importance of culture and context in governance and nationbuilding. Institutional economists agree on this, given their belief in the importance of culture in shaping economic institutions. Jenkins and Plowden focus on the idea of government as systems and not individual entities that can be dealt with alone. They conclude that even though most of the donor agencies believe that intervention can help reform governments, they fail to learn from the past experience and history of the nations. Agencies need to adjust expectations and focus on each country independent of others. Thus, one size does not fit all. Even though the obstacles to achieving good governance through international intervention are enormous, they argue that there is hope if working relationships are made more conducive for all parties involved and flexibility is allowed into the planning processes.

I find this book very interesting in its approach to the question of governance and nationbuilding. I feel that, in its attempt to survey the problem of aid for government improvement, it fails to address how economic unions can affect governance issues. The role of
organizations like the Economic Community of West African States (ECOWAS), the Organization of African Unity (OAU), etc. can be addressed to see how those affect good governance and nationbuilding. ECOWAS, a sub-regional organization, has had huge roles in influencing nationbuilding in countries like Cote D’Ivoire, Liberia and Sierra Leone yet very little attention is given to it. Economic organizations like OPEC also have some implications for nationbuilding and governance, but are not discussed. On the whole I feel this book gives an excellent account of the evolution of international intervention and offers some great advice on how to proceed in the future as the need for international collaboration becomes ever more important.

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Notes

1 Commonwealth of Nations is a voluntary association of 53 sovereign states, the majority of which are former British colonies, dependencies and protectorates. Mozambique, though not a former colony, is a member, while former colonies and dependent states like Sudan, Egypt, Nepal and Burma are not.

2 Stiftungen is a German donor organization established in 1925, banned by the Nazis for its partisan stand, revived after the world wars and is currently funded by the German government with a total fund of some €110 million per year. It has offices in 70 developing countries.

3 Open Society Institute, Financed by George Soros, is a privately operating grant making foundation whose aims are to shape public policy to promote democratic governance, human rights, and economic, legal and social reform. It is located in more than 60 countries and has an annual budget of about $400 million.

4 The Ford Foundation focuses on promoting democratic values and the rule of law and human rights.

5 Established in the 1990’s, Project Liberty is based at the Kennedy School of Government at Harvard University. It is funded by several major US charitable foundations and is directed by Shirley Williams a former cabinet minister for the British Government.
Established in 1992, the WFD is a small-scale multiparty equivalent to the Stiftungen. It is funded by the Foreign and Commonwealth Office of the British Government and aims at achieving political change in emerging democracies.

This book begins with a look at two groups from different sides of the track. One group, the ones with stars on their bellies, is a very stuck-up group who think they are the best on the beach. The Star-Belly Sneetches walk around with their snoots in the air and say, “We’ll have nothing to do with the Plain-Belly sort!” (Seuss 1961, p. 4). This was a society-wide policy that adults and children with stars on their bellies would have nothing to do with plain-belly adults or children. In this society Star-Belly Sneetches have the monopoly on fun, from playing ball on the beach to “frankfurter roast or picnics or parties or marshmallow toasts, They never invited the Plain-Belly Sneetches. They left them out cold, in the dark of the beaches. They kept them away. Never let them come near. And that’s how they treated them year after year,” (ibid., p. 7). This perpetual exclusion has left the Plain-Belly Sneetches without hope; that is, they were hopeless until one day Sylvester McMonkey McBean rolls into town and says he can fix all their problems with one machine. With the “star on” machine, for only $3 you can get a ‘star on thars’. This made the Sneetches, formerly known as Plain-Belly, ecstatic, but just for a moment, for as soon as they showed the original Star-Belly Sneetches that they had stars, the Star-Belly Sneetches were outraged, and got McBean to make them a “star off” machine so the best Sneetches on the beaches could now be the ones without stars. As one might imagine, a battle ensues as all the Sneetches are madly trying to change their image to fit the ideal of the society. This continues until they have exhausted their money supply and no one remembers who originally had ‘stars on thars’. Once McBean leaves with all their money they realize that Plain-Belly and Star-Belly Sneetches are not that different and they learn how to get along and that the stars did not mean anything in the first place.

This book can be viewed through a number of different lenses. You can see it through an urban underclass view, a Veblenian conspicuous consumption view, a neoclassical equilibrating market, or as a simple children’s story with no social impact. Looking through the first lens we see that the ruling “majority” class, the Star-Belly Sneetches, have created a perpetual cycle of detrimental policies to make the Plain-Belly Sneetches into an underclass in society. The creation of the underclass does not happen over night; it has taken time to lead them down their current path. As a result of discrimination, oppression, and unequal access to opportunities such as
frankfurter roasts or playing ball with the neighborhood kids, the Star-Belly Sneetches have created institutionalized discrimination and thereby *ethnic stratification*. “When members of subordinate ethnic subpopulations receive only certain types of valued resources, it becomes possible to establish their location on the social hierarchies of society. On the basis of this location, the distinctiveness of an ethnic group is retained, thereby making it a target of further prejudice and discrimination,” (Aguirre and Turner 2004, p. 21). Thus, these policies have helped to turn the Plain-Belly Sneetches into the *ghetto underclass*. To try to help their situation they have to join together and fight for their rights; in this case they have to fight for their right to party. If they do not form collective action, an outside force can come in and try to fix the situation. In this case that is what happened, Sylvester McMonkey McBean, the Fix-It-Up Chappie, tries to bring in a one size fits all policy to ameliorate the situation. He just creates to patch up the problem by giving people stars on thars and no caring if people actually get better and work at solving the deeper problem that started this path. As the author states “Then, when every last cent of their money was spent, The Fix-It-Up Chappie packed up and he went. And he laughed as he drove In his car up the beach, ‘they never will learn. No. You can’t teach a Sneetch’ (Seuss, p. 22).” He is just interested in their money and not about the real problem at hand of the underclass of Plain-Belly Sneetches. What Mc Bean was able to do in an off hand way was bring light to the situation and people were able to work out their own differences.

This is not the only reading of the story if you adopt the Conspicuous consumption view, they Plain-Belly only want the stars because they see the Star-Belly Sneetches with them and they want to be like them and have fun, as the Star-Belly Sneetches have a monopoly on fun in this society. To the Plain-Belly Sneetches they think if they have the stars, it would solve all of their problems. Where in reality stars are an unnecessary luxury, why cannot they through there own parties? Still the Sneetches persist and have a very high demand for stars. When Mc Bean provides the “star on” machine most, if not all, of the Plain-Belly sort jump at this chance to have stars on thars, they are exercising their conspicuous consumption.

In a neoclassical market equilibrating view you are looking at two markets, the market for stars and the market for star removal. Let us assume that at stage 0 you have Plain-Belly Sneetches whom want stars and Star-Belly Sneetches who do not want anyone else to join their group. We will also assume, for simplicity sake, that the population of Sneetches is divided 50-50. In stage 1, you have a technological innovation in the “star on” machine, only known to the
Plain-Belly sort. This leads to a right shift in the demand, and the equilibrium price is now increased to $3. At this price most of the Plain-Belly Sneetches decide to do this and change the population dynamics Stars-90% and No Star-10%. There now becomes a shift in demand as tastes and preferences change so Sneetches now desire no stars, since most of the population now has stars and the use of the “star off” machine has inelastic demand the new equilibrium price is higher, at $10 for star removal. In Stage 3, they keep fluctuating back and forth about what star policy is better as the majority tries to remain the majority so preferences keep shifting until you reach a new stable state/equilibrium.

This book is much more than a children’s story and goes down to the heart of social structures and hierarchies, painting a picture of our own lives. This book is a good read and a lighthearted break from traditional economic literature.

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