

AMERICAN REVIEW OF POLITICAL ECONOMY

Volume 7, Numbers 1 & 2

June/December 2009

AMERICAN REVIEW OF POLITICAL ECONOMY

Volume 7, Numbers 1 & 2

June/December 2009

Editor-in-Chief:
Zagros Madjd-Sadjadi, Winston-Salem State University

Managing Editor:
Nikolaos Karagiannis, Winston-Salem State University

<http://www.ARPEJournal.com>

AMERICAN REVIEW OF POLITICAL ECONOMY

General Information

The *American Review of Political Economy* (ISSN number 1551-1383) is published twice a year by the Center for Economic Analysis at Winston-Salem State University. The journal's web page is located at www.ARPEJournal.com

Editorial Board

Glen Alexandrin, Villanova University, Villanova, USA.
Selahattin Bekmez, Mugla University, Turkey.
Orn Bodvarsson, University of Nebraska, Lincoln, USA.
Bill Ferguson, Grinnell College, Grinnell, USA.
Ismael Genc, University of Idaho, Boise, USA.
John T. Harvey, Texas Christian University, Forth Worth, USA.
Patrick James, University of Southern California, USA.
Sigfried Karsten, State University of West Georgia and University of Utah, USA.
Frederic E. Lee, University of Missouri, Kansas City, USA.
David MacGregor, University of Western Ontario, London, Canada.
Enrico Marcelli, San Diego State University, San Diego, USA
Thomas O. Nitsch, Creighton University, Omaha, USA.
Lawrence A. Powell, University of the West Indies, Kingston, Jamaica.
Guido Preparata, University of Washington, Tacoma
David A. Reisman, Nanyang Technological University, Singapore and University of Surrey, UK.
Swapan Sen, Winston-Salem State University, USA
C. Daniel Vencill, San Francisco State University, San Francisco, USA.
Richard Westra, Pukyong National University, Korea.
Stephen Zarlanga, American Monetary Institute, Valatie, USA.

Statement of Purpose

The American Review of Political Economy seeks papers on a wide variety of topics within political economy, broadly defined. It welcomes high-quality articles from all perspectives in the discipline and especially is open to submissions from heterodox economists. It is a double blind peer-reviewed academic journal, which contains between 3 and 6 articles in each issue.

Information for Authors

Manuscript submissions and all correspondence relating to the contents of the *American Review of Political Economy* are to be submitted in electronic form only. All manuscript submission fees are being waived at this time. Please submit completed manuscripts to: manuscripts@ARPEJournal.com

Copyright

©2010 American Review of Political Economy. All Rights Reserved. The reproduction, storage, or transmission of this work, in whole or in part, in any form or by any means beyond that permitted by Sections 107 or 108 of the US Copyright Law is unlawful without prior permission in writing from the publisher. Please note that all institutions of higher learning and instructors may make photocopies for teaching purposes free of charge provided such copies are not resold. For educational photocopying requests that entail reproduction in a reader packet to be sold to students, please contact the publisher at sadjadizm@wssu.edu for rates.

TABLE OF CONTENTS

CONTRADICTIONS OF “DOING DEVELOPMENT”: A STRUCTURALIST APPROACH <i>Saumya Chakrabarti</i>	1
ON DELEGATING THE DISTRIBUTION ROLE OF CENTRAL GOVERNMENT TO STATE GOVERNMENTS: SOME POLITICAL ECONOMY ISSUES <i>Sanjeev K. Sobhee</i>	37
THE EFFECTS OF CAMPAIGN EXPENDITURES ON CONGRESSIONAL ELECTIONS <i>Mark Gius</i>	51
MONOPSONY THEORY <i>Walter Block and William Barnett II</i>	67
BOOK REVIEWS	
REVIEW OF “SOCIOECONOMIC SYSTEMS OF RUSSIA SINCE THE 1850s” BY ERNEST RAIKLIN <i>Polina Vlasenko</i>	110
REVIEW OF “PIONEERS OF LAW AND ECONOMICS” LLOYD R. COHEN AND JOSHUA D. WRIGHT (eds.) <i>Zagros Madjd-Sadjadi</i>	116
REVIEW OF “THORSTEIN VEBLÉN AND THE REVIVAL OF FREE MARKET CAPITALISM” JANET T. KNOEDLER, ROBERT E. PRASCH, & DELL P. CHAMPLIN (eds.) <i>Zagros Madjd-Sadjadi</i>	118

Contradictions of “Doing Development”: A Structuralist Framework

Saumya Chakrabarti*

Visva-Bharati University

Abstract: We construct an economy composed of modern/formal sector and the government and situate it within an exogenously given traditional economy consisting of farm and non-farm activities. The particularities of interactions between formal sector, government and agriculture on one hand and between farm and non-farm sectors on the other are discussed and the departures from the literature are identified. Next, we propose, for accumulation and growth in formal sector a large part of agriculture is modernized and thus there is drain of resources from the traditional economy. This expropriates a sizeable section of non-farm population from the means of consumption and reproduction. Consequently, a vast “surplus population” is created endogenously, which remains outside the domain of capital. This phenomenon points at a fundamental conflict between the modern/formal sector and the traditional non-farm activities in presence of agricultural-supply-constraint, which was missed out in the orthodox “dual economy” literature proposing only a frictionless transition. Next, following the dictum of “development management” we assume that this “surplus population” is rehabilitated in the newly “discovered” and valorized informal sector. But, contrary to the mainstream position which asserts a symbiotic relation between this informal sector and other sectors of a less-developed-economy we propose that, this promotion of informal activities either generates formal – informal contradiction or engenders a conflict within the non-modern economy in the form of contradiction between the valorized informal sector and the residual petty non-farm activities. Hence, the projection of informal sector as a cushion mitigating unemployment is nothing but a myth.

JEL classifications: O11, O17, O20, Q18.

Key words: “Realization Crisis”, “Domestic Exports”, Farm – Non-farm Symbiosis, Modern – Traditional Conflict, Expropriation and Informal Sector, Formal – Informal Conflict, Informal – Non-farm Conflict, Agricultural Supply-constraint.

I. INTRODUCTION

During the last few decades the discourse on development has been experiencing a shift away from the era of “Lewisian path” and “big push”. It is increasingly being recognized that capital accumulation and growth based on modern technology is unable to provide livelihood for the vast majority of third world population. Consequently, the focus of development is moving away from the capital-centric growth-centric trickle down trajectory towards targeted intervention with the intentions of poverty alleviation and of ensuring basic “entitlement” and “capability” (Sen, 1988). Simultaneously, there

* The author is sincerely grateful to Kalyan Sanyal and Arup Mallik. The author also thanks Sarmishtha Sen, Anirban Kundu, Aparajita Mukherjee, Snehashish Bhattacharya, Anirban Dasgupta and Rajesh Bhattacharya. Thanks also go to the anonymous referees. The usual disclaimer applies.

is a paradigm shift from “development planning” to “development management”. Thus, while the traditional development economics tried to solve the problem of “modern – traditional dualism” through expansion of modern sectors, the current discourse of development management directly focuses on the traditional segment as an object of governance and proposes its incorporation not into the modern sectors rather into the globalized domain of “free market” which is supposed to mediate a “modern – traditional symbiosis”.

However, it is argued by the critiques that the so called route of “progress” based on accumulation and growth in modern industry and services not only excludes but also marginalizes the indigenous population surviving on the subsistence/traditional economy by expropriating them from the means of consumption and reproduction. The long run course of “modernization” itself creates the mass of “development refugee”/ “marginalized” the “surplus population” (Sanyal, 2007) which, however, remains barred from capitalistic growth process. Thus, according to them “modern – traditional symbiosis” is nothing but a myth and the course of “development” endogenously produces “marginalization”.

It is also opined by these critiques that, faced with such an endogenous process of creation of “modern – marginal dualism” the international agencies like UN, ILO and the World Bank are advocating for active government intervention to govern/contain and to rehabilitate the marginalized “surplus humanity” (Davis, 2004).¹ This departure in the orthodox development discourse becomes clear once we identify the recent “discovery” of the “informal sector” and portrayal of this sub-economy in a positive light (Mellor, 1976; Tokman, 1978; Mead, 1984; Saith, 1992; Ranis and Stewart, 1993, 1994; UN, 1999; Bangasser, 2000; Lanjouw and Lanjouw, 2001; UN-Habitat, 2003; Maloney, 2004; see also Sanyal, 2007 for a critical review). As a result of such a view of informal sector present day governments of the third world are protecting, and promoting this sector to rehabilitate the “excluded” and the “marginalized” so that they could participate in the “globalised free market”.²

Our primary task in this paper is to formulate a macro-framework along structuralist lines to capture the fundamentals of the foregoing discussion. However, we intend to interrogate some of the key propositions of the orthodox development economics put

forward during the last half a century. This critical enquiry brings to the fore certain fundamental contradictions arising out of the prescriptions of the mainstream development discourse. Contrary to the claims of both the “frictionless model of transition to capitalism” and the model of “market-based development management” we try to show that “doing development” cannot be free from conflicts of interests. To critically evaluate these orthodox prescriptions we need to construct an appropriate theoretical set-up.

We construct an economy composed of modern/formal sector and the government and situate it within an exogenously given traditional economy consisting of petty farm and non-farm activities. Next, following the prescriptions of the orthodox dual economy models, we assume, for growth of formal sector a large part of agriculture is modernized. However, this implies a drain of resources from the traditional economy to feed the process of accumulation in the modern sector. This resource-squeeze endangers the very existence of the petty non-farm economy. Consequently, a vast surplus population is created endogenously, which remains outside the domain of capital. Next, following the dictum of development management we assume that this endogenously produced (displaced) surplus population is rehabilitated in the newly discovered and valorized informal sector. But, contrary to the orthodox position which asserts a complementary relation between the formal and informal sectors we propose that, this promotion of informal activities and thereby rehabilitation of surplus population either generate formal – informal contradiction or engender a conflict within the non-modern economy in the form of contradiction between the valorized informal sector and the residual petty non-farm activities.

II. A MODEL OF MODERN-TRADITIONAL CONFLICT: CREATION OF INFORMAL SECTOR

First, we construct an economy composed of modern/formal sector and the government and situate it within an exogenously given traditional sector consisting of agriculture and non-farm activities.

2.1. Agriculture – Formal Sector Interaction: Role of the Government

2.1.1. Review of Literature

(a) Demand-side linkage:

There is a vast literature which argues that agriculture provides “home market” for the formal industrial sector (FS) and thereby mitigates its “effective demand problem” through the following channels:

- i) Inter-sectoral redistribution of income. This redistribution is initiated by a movement in the terms of trade (t-o-t) between agriculture and FS (Mitra, 1977; Bagchi, 1988).
- ii) Mutual exchange of surpluses between FS and agriculture (Mundle, 1977; Kaldor, 1984).

(b) Supply-side linkage:

Agriculture providing supply-side support for FS, absence of which restricts accumulation:

- i) Supply of wage-goods and raw materials for FS are important contributions of agriculture. These elements are supplied to FS through simple inter-sectoral exchange (Kalecki, 1954; Kaldor, 1976).
- ii) Food-constraint pushes up food-price in the face of growing demand from FS, which leads to either wage-price upward spiral in FS (Kalecki, 1954) or deterioration of t-o-t for FS leading to “profit squeeze” (Ricardo, 1815; Preobrazhensky, 1926; Ranis and Fei, 1961).

Thus, these demand and supply side channels of agriculture – formal sector interactions operate either through t-o-t variation or through mutual exchange.

2.1.2. Our Departures

(a) We consider a situation where all the contending groups (capitalists and workers of FS and the farmers) form separate lobbies and all lobbies are equally strong. In such a situation these classes can collude, the political expression of which is a “coalition government”. In a regime of “coalition politics”, each of the contending groups tries to maintain its relative socio-economic position. Consequently, any process initiating redistribution is blocked through bargaining. Therefore, we assume rigidity of formal

sector real-wage and product-wage and hence, rigidity of agriculture – formal sector t-o-t as well.³

(b) We assume absence of any type of capital flow between agriculture and FS. Essentially, it means balanced trade between agriculture and FS. Implicitly, this assumption indicates that none of the sectors is growing at the cost of the other. We assume balanced trade to remove the possibility of extraction of (trade) surplus by any of the sectors from the other. However, it could be shown clearly that given our first departure this is only a simplifying one.

(c) Now we come to our third contention. Our claim is that equilibrium exchange with balanced trade between agriculture and FS cannot create any extra demand for FS. Accordingly agriculture cannot be a “home market” for FS boosting its “effective demand”. In fact, the popular perception is that a bumper crop facilitates industrial revival because it leads to increased income in agrarian sector raising demand for FS goods. The argument is based on an implicit assumption of constant t-o-t. The assumption is necessary because a bumper crop, *ceteris paribus*, will change the t-o-t against agriculture. This, in turn, will reduce the purchasing power of agricultural sector given an inelastic food-demand from FS. Even if we allow for the assumption of constant t-o-t, the increased agricultural output is translated into actual additional purchasing power only after it is sold to FS. Moreover, formal sector purchases of the additional agricultural output mean a leakage from the expenditure on FS good incurred by that sector itself. This reduces demand for FS output. On the other hand, when the additional income that accrues to agriculture through sale of additional amount of food to FS is, in turn, spent on FS products, demand for FS commodity rises. However, ultimately there is no impact on the demand for FS commodity, as the two effects wash off.

If we put together all these departures and contentions, it implies complete absence of all the agriculture – FS demand-side interactions as discussed in the literature.

2.1.3. Kalecki: Concept of Domestic Exports

We assume, for the time being that the primary problem for FS is the lack of “internal effective demand” while agricultural supply to FS is sufficient. In such a situation, the

only option left for the expansion of the demand-constrained FS, in a closed economy, is the path of government intervention given agriculture's inability to provide the "external market" for FS under the conditions designed by our departures.

Kalecki quite correctly formulated the role of "external market" and "home market" in mitigating the demand problem of industry (Kalecki, 1934). He pointed out in clear terms that the extent of foreign market relevant in the context of effective demand problem is not given by the level of export but by that of export-surplus. However, there are practical problems in sustaining export-surplus vis-à-vis rest of the world. We therefore shift our focus from external market to home market.

Home market for industry is defined as any non-industrial sector within the national economy vis-à-vis which domestic industry can enjoy "export-surplus". The agrarian sector cannot be the home market since it suffers from the problem of financing its import-surplus (vis-à-vis industry). A well-known fact is that the agrarian sector lacks the power to issue any financial asset like shares and bonds.⁴ Hence, the government sector is the proper candidate to play the role of home market. It can purchase goods from the industrial sector given its monopoly power over printing money. In its trade with government sector domestic industry "exports" goods against the "import" of money. This export which is, by definition, an export-surplus is what Kalecki terms as "domestic exports".

2.1.4. Kalecki: Agricultural Supply-constraint

Kaleckian analysis rules out agriculture as a possible home market for industrial product. However, this does not mean that he considers agriculture as totally unimportant in the context of industry. There is clear recognition of agriculture as the source of supply of wage-good or "food" to the industrial sector. If agricultural production fails to grow at the required rate, persistent excess demand for food will continually increase food-price which in turn, will lead to an upward wage-price spiral in the industrial sector (Kalecki, 1954).

Kalecki's concepts of domestic export and of agricultural supply-constraint constitute our point of departure. The two concepts are treated by Kalecki in an isolated manner.

Our task is to unite the two in a single frame of analysis to capture agriculture – FS interaction.

2.2. Farm – Non-farm Inter-linkage: The Traditional Economy

Next, we discuss the interaction between agriculture and the traditional non-farm sector (NFS) which constitute the traditional economy. We assume that this traditional economy exists exogenous and prior to the so called phenomenon of modernization of the post-colonial era. Thus, contrary to the orthodox “dual economy” set-up where traditional sector consists of mainly agriculture our economy contains a sizeable section of population engaged in non-farm activities.⁵ In this context we bring in the phenomenon of modernization.

We argue following the traditional “dual economy” literature (e.g., Ranis and Fei, 1961) that, to support the process of accumulation and growth in FS a large part of agriculture is segregated from the traditional economy through rapid mechanization and use of modern technology embodied in strategic inputs produced in FS. But, mainly the large farmers are able to take advantage of this process of integration of FS and modernized agriculture and the weaker groups are marginalized.⁶ Against the cheap and abundant supply of agricultural produce to FS, the rich farmers receive subsidized finance and inputs and also assured market. Thus, an alliance between rich farmers and formal industrial capital is forged which is also beneficial for the elite working population attached with FS.⁷

However, this whole process not only leaves out the largest section of the population engaged in petty production based NFS but also expropriates them from their means of production and consumption. Furthermore, modernization of traditional agriculture destroys the home market for NFS. Thus, the process of modernization of a part of the economy creates the mass of dispossessed – the surplus population and thereby we have FS – NFS conflict.

2.3. Basic Features and Notations of our Economy

2.3.1. The Features are as follows:

(a) Four sectors: a capitalistic FS, a non-capitalistic agricultural sector producing “food”, a non-capitalistic NFS and the government sector.

- (b) FS is characterized by excess capacity, unemployment and mark-up pricing. Price is cost-determined and output is demand-determined.
- (c) All profits in FS are saved whereas all wages are consumed. A part of wage-income is spent on food so that there is the possibility of FS facing an agricultural supply-constraint.
- (d) A fixed marketable surplus of food-grain represents the agricultural supply-constraint for FS as well as for NFS. Consequently, we have demand-determined price for food.
- (e) Contrary to FS with capital-labor dichotomy and accumulation-motive as the driving force for production, NFS is characterized by consumption-motive,⁸ self-employment and absence of fixed capital.⁹ Moreover, there is surplus-labor in NFS. NFS is essentially consisted of “petty commodity producers”. It is a subsistence sector where there is no net surplus over and above the requirements for food and non-food consumption at subsistence levels and for “simple commodity reproduction” without expansion of scale.
- (f) NFS is self-sufficient in terms of both implements and non-food consumption. However, like FS it has to depend on agriculture for food which is obtained with the proceeds received through sale of net-output (net of requirements for self-consumption and reproduction) to agriculture itself.
- (g) Aggregate agricultural income is earned by selling marketable surplus in the (undifferentiated) food market, which is purchased by the agents of both FS and NFS at the single open market price. This income, in turn, is spent on the products of both FS and NFS. The division depends on the relevant terms of trade,¹⁰ cropping-pattern¹¹ and land-distribution pattern.¹²
- (h) We have balanced trade between agriculture and NFS, on one hand and between agriculture and FS on the other.¹³
- (i) The government purchases FS products by money creation. It constitutes the “domestic exports” for FS and relaxes the “effective-demand-constraint” by providing the “home market”.
- (j) The distribution of income among different classes is determined exogenously and there is social resistance to any change in this pattern.¹⁴

(k) We assume away any interaction between FS and NFS. This is a simplifying assumption. As a very little part of NFS is able to interact with the sophisticated FS this seems to be a plausible supposition.

(l) We restrict to a short-run static analysis and a closed economy set-up.

2.3.2. Notations to be used are:

(i) Y: Level of FS output. (ii) p_f : Price of FS output. (iii) τ : Mark-up over prime (wage) cost in FS. (iv) w_m : Money-wage rate in FS. (v) L: Employment in FS. (vi) l : Labor-output ratio in FS. (vii) I: Real investment in FS in terms of FS output. (viii) g: Real government expenditure on FS in terms of FS output. (ix) G: Nominal government expenditure on FS. (x) F: Aggregate supply of marketable surplus of food to FS and NFS. (xi) a_f : Per capita food-demand in FS. (xii) p_f : Food-price. (xiii) D_f : Aggregate food-demand from FS. (xiv) W: Total wage-bill of FS in terms of FS output. (xv) α_u : Fraction of aggregate agricultural income or that of aggregate marketable surplus of food transacted with NFS.¹⁵ (xvi) Y_u : Level of NFS output. (xvii) p_u : Price of NFS output. (xviii) L_u : Employment in NFS. (xix) l_u : Labor-output ratio in NFS. (xx) β_u : Fraction of NFS output used for self-consumption and reproduction. (xxi) S_u : Aggregate net-output of NFS used to purchase food. (xxii) D_u : Aggregate demand for NFS output. (xxiii) a_{fu} : Per capita food-demand in NFS.

2.4. Working of our Model

The features (a) to (l) of section (2.3.1) imply the following formulations:

2.4.1. Interaction between FS, Agriculture and the Government

Excess capacity in FS implies a given l , and we take $l=1$.

Hence, $L=Y$ (1)

Using equation (1), mark-up pricing in FS is represented as:

$p_f=(1+\tau)w_m$ (2)

τ is a positive constant.

Workers’ demand for a targeted real-wage is given by:

$w_m/p_f=\beta$ (3)

β is a positive constant.

From equations (2) and (3), we write the following:

Product-wage in terms of FS output is,

$$(w_m/p_i)=1/(1+\tau)=\alpha \quad \dots \dots \dots(3.1)$$

Terms of trade between agriculture and FS is,

$$(p_f/p_i)=\beta/(1+\tau)=\theta \quad \dots \dots \dots(3.2)$$

α and θ are exogenously determined.

The basic income-expenditure equation for FS can be written as:

Total FS output =

(Total FS wage-bill in terms of FS output) ¹⁶

+(Total FS investment in terms of FS output)

+(Total government expenditure on FS in terms of FS output) $\dots \dots \dots(4)$

We take (autonomous) real investment in FS and nominal government expenditure on FS output (i.e. government budget) as exogenously given, i.e.,

$$I=I^0 \quad \dots \dots \dots(5)$$

$$G=G^0 \quad \dots \dots \dots(6)$$

Investment is governed by long-run profit expectations which are completely inelastic with respect to current changes in production.

Now, substituting equations (5) and (6) in equation (4) and using relevant notations we obtain:

$$Y=W+I^0+G^0/p_i=(w_m/p_i).L+I^0+(p_f/p_i).(G^0/p_f) \quad \dots \dots \dots(7)$$

Using equations (1), (3.1) and (3.2), equation (7) can be rewritten as:

$$Y=\alpha.Y+I^0+\theta.(G^0/p_f) \quad \dots \dots \dots(7.1)$$

Given equation (1), equation (7.1) can be written as:

$$L=\alpha.L+I^0+\theta.(G^0/p_f) \quad \dots \dots \dots(7.2)$$

Solution of (7.2) gives,

$$L^*=[I^0+\theta.(G^0/p_f)]/(1-\alpha) \quad \dots \dots \dots(8)$$

Now, food-demand per worker employed in FS depends on wage-share and t-o-t and it can be expressed as:

$$a_f=a_f(w_m/p_i, p_f/p_i) \quad \dots \dots \dots(9)$$

$a_{f1}>0$, $a_{f2}<0$.

Using equations (3.1) and (3.2) we get,

$$a_f(w_m/p_i, p_f/p_i)=a_f^0 \quad \dots \dots \dots(10)$$

a_f^0 is a positive constant.

Hence, aggregate food-demand from FS can be written as:

$$D_f=a_f^0.L \quad \dots \dots \dots(10.1)$$

Substituting from equation (8):

$$D_f=a_f^0.[I^0+\theta.(G^0/p_f)]/(1-\alpha) \quad \dots \dots \dots(10.2)$$

There is an inverse relation between food-price and aggregate food-demand from FS, which gives us the negatively sloped D_f curve of figure 1.

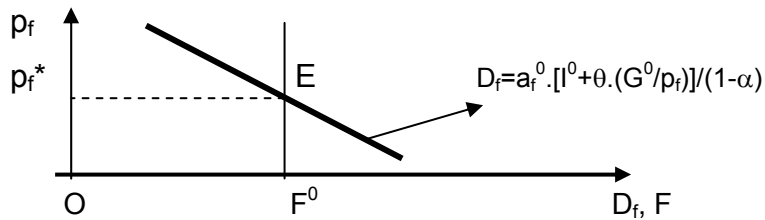


Figure 1: Food-market equilibrium representing agriculture-FS interaction.

Now, the assumption of a fixed marketable surplus of food¹⁷ can be written as:

$$F=F^0 \quad \dots \dots \dots(11)$$

Using equations (10.2) and (11), food-market equilibrium condition is:

$$F^0=D_f=a_f^0.[I^0+\theta.(G^0/p_f)]/(1-\alpha) \quad \dots \dots \dots(12)$$

Equation (12) determines the equilibrium food-price p_f^* . It can be represented in a simple food-market demand-supply diagram (figure 1). The equilibrium food-price, p_f^* determines the equilibrium money-wage in FS, i.e. w_m^* given equation (3). This w_m^* , in turn, determines equilibrium price of FS output, i.e. p_i^* given equation (2). Consequently, the equilibrium size of the real government expenditure on FS output is endogenously determined as:

$$g^*=G^0/p_i^* \quad \dots \dots \dots(12A)$$

Proposition 1: Given an exogenous food-supply-constraint and exogenously determined income distribution, the size of real domestic exports or that of the home market for FS is endogenously determined.

Corollary:

It clearly follows that given the amount of per capita food consumption in FS (i.e., a_f^0), bumper harvest creates a potential for FS expansion. However, realization of this potential requires an adequate increase in the value of real domestic exports. Such a case can be presented in terms of Figure 2.

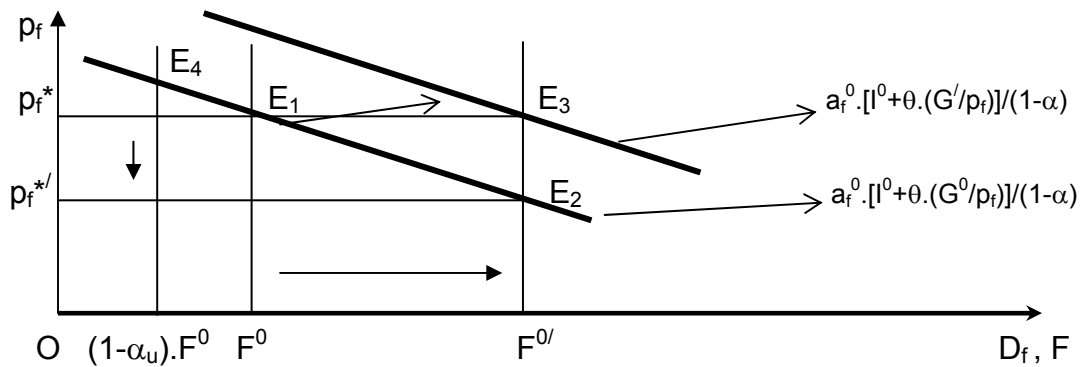


Figure 2: Effects of bumper harvest on FS represented through food-market equilibria

Consider a case of downward flexibility of FS money-wage: Let us assume a bumper harvest raising the value of F to say, $F^{0/}$. As a result equilibrium food-price falls from p_f^* to $p_f^{*/}$. Given the distributive factors, this reduces w_m and subsequently, p_i also falls. This, in turn, expands the size of real domestic exports given $G=G^0$. Simultaneous increases in food-supply to and demand for FS induce its expansion (along with a process of general deflation). Thus we get the movement of equilibrium position from E_1 to E_2 .

However, with downward rigidity of w_m , a fall in p_f due to bumper harvest does not automatically increase the real domestic exports. In that case, adequate expansion of home market can only be achieved by a proper expansion of nominal government expenditure. The required expansion is such that the equilibrium position moves to E_3 .

Proposition II: Bumper harvest creates the potential for FS expansion from the supply-side. However, on the demand-side, realization of this potential requires an adequate

expansion of home market through increase in the value of real domestic exports. Such an expansion can be achieved by price-wage fall in case of downward flexibility of money-wage. A proper expansion of nominal government expenditure, on the other hand, is required in case of downward rigidity of money-wage.

2.4.2. Interaction between Agriculture and NFS

First, from the condition of labor-surplus NFS we can specify constancy of per capita food-demand at the minimum subsistence level. Hence,

$$a_{fu} = a_{fu}^0$$

Moreover, the absence of (limiting) capital implies,

$$l_u = l_u^0, \text{ a constant.}$$

We also assume without loss of generality,

$$\beta_u = \beta_u^0, \text{ a constant.}$$

All these combined together indicate that the real average cost of production in NFS due to food and non-food consumption and due to use of implements and raw materials is structurally determined and is constant.

Furthermore, as there is no surplus (i.e., no surplus value for accumulation) in NFS the food and non-food consumption-cost and implements and raw materials cost solely determine the NFS product-price. Hence, price formulation in NFS can be expressed as,

$$p_u = p_f \cdot a_{fu}^0 \cdot l_u^0 + p_u \cdot \beta_u^0$$

Rearranging,

$$(1 - \beta_u^0) \cdot p_u = p_f \cdot a_{fu}^0 \cdot l_u^0$$

Thus, the value of net-output in NFS is determined only by the subsistence cost or food-cost.

Now assuming, $l_u^0 = 1$ for simplicity,

$$p_u / p_f = a_{fu}^0 / (1 - \beta_u^0) \quad \dots \dots \dots (i)$$

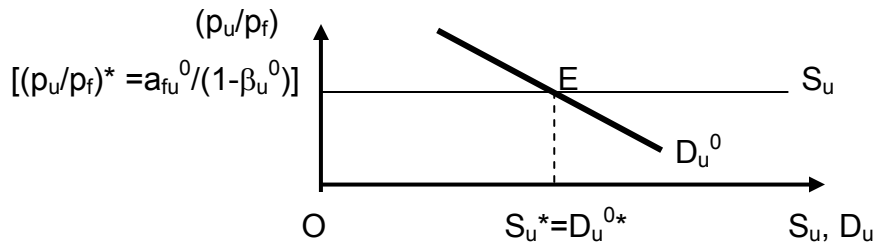


Figure 3: NFS equilibrium representing agriculture-NFS interaction

Therefore, we have a given agriculture-NFS t-o-t. Moreover, at this given t-o-t the supply of net output, S_u will be perfectly elastic as there is no limiting factor within NFS. The S_u curve will be horizontal on the “ S_u-p_u/p_f ” plane (Figure 3). Furthermore, the given t-o-t implies that a particular amount of food-supply to NFS always induces a definite volume of inter-sectoral trade. Hence, the level of production in NFS is set solely by the volume of food supplied to this sector. As the perfectly elastic S_u and hence Y_u and L_u are demand-determined, the equilibrium values of these variables are solely set by the portion of marketable surplus of food or more precisely, that of agricultural income transacted with NFS. Stated otherwise, demand for food from NFS is perfectly elastic. Agriculture is not facing any demand problem so far as NFS is concerned. There is no “realization problem” for agriculture so far as its interaction with NFS is concerned.

Proposition III: Interaction between agriculture and NFS is found to be distinctly different from that between agriculture and FS. While in the latter case there remains a possibility of realization crisis for agriculture, the former relation is free from any such problem even if there is no government intervention and the t-o-t is given.

Mere supply of agricultural commodities does not automatically imply its sale in capitalistic formal economy, as production in this sector is organized by the capitalists with accumulation motive and not for consumption per se. Contrarily, against food-supply to NFS agriculture simultaneously demands NFS output, as the farmers participate in production for satisfaction of need. On the other hand, this food-supply also induces production in NFS as the petty non-farm producers’ sole objective is also consumption, the most important item being food. Hence, marketable surplus of food gets easily absorbed in NFS.

Next, from our preceding analysis we know that the value of aggregate demand for NFS output is equal to the part of agricultural income spent on it or the value of marketable surplus of food transacted with NFS. Hence,

$$p_u \cdot D_u = \alpha_u \cdot p_f \cdot F \quad \dots \dots \dots (ii)$$

Now using feature (g) of section (2.3.1) and notation (xv) of section (2.3.2) we can formulate:

$$\alpha_u = \alpha_u(p_f/p_u, p_f/p_i, n_1, n_2) \quad \dots \dots \dots (iii)$$

$$\alpha_{u1} > 0, \alpha_{u2} < 0 \text{ and } \alpha_{u3} > 0, \alpha_{u4} > 0.$$

Here the exogenous factor ‘ n_1 ’ is the land-distribution parameter, an improvement of which implies a more equitable pattern that helps NFS to grow.¹⁸ However, we assume that n_1 is set say at n_1^0 . On the other hand, “ n_2 ” signifies cropping-pattern. Higher the extent of crop-diversification lower is the value of n_2 and hence, a squeeze on NFS (see below). However, we assume that n_2 is set say at n_2^0 .

Moreover, using equation (3.2) in equation (iii) we get:

$$\alpha_u = \alpha_u^0(p_f/p_u, \theta, n_1^0, n_2^0) = \alpha_u^0(p_f/p_u) \quad \dots \dots \dots (iv)$$

Rearranging equation (ii) and using equation (iii) we get,

$$D_u = (p_f/p_u) \cdot \alpha_u(p_f/p_u, p_f/p_i, n_1, n_2) \cdot F \quad \dots \dots \dots (v)$$

Hence, generalizing we get,

$$D_u = D_u(p_u/p_f, \alpha_u, F) \quad \dots \dots \dots (vi)$$

Using equation (iv) and $F = F^0$ (equation 11) we have from equation (vi),

$$D_u = D_u^0(p_u/p_f, \alpha_u^0, F^0) = D_u^0(p_u/p_f) \quad \dots \dots \dots (vi)'$$

$$D_u^0 < 0.$$

This gives a downward sloping D_u^0 curve on the “ $D_u - p_u/p_f$ ” plane (Figure 3).

Now, we consider the determination of equilibrium values, i.e. $(p_u/p_f)^*$, α_u^{0*} , D_u^{0*} , S_u^* , Y_u^* and L_u^* . It is to be noted that $(p_u/p_f)^*$ is effectively determined by equation (i) as:

$$(p_u/p_f)^* = a_{fu}^0 / (1 - \beta_u^0) \quad \dots \dots \dots (i)'$$

Putting equation (i) in equation (iv) we get,

$$\alpha_u^{0*} = \alpha_u^{0*} [(p_f/p_u)^*] \quad \dots \dots \dots (vii)$$

From our characterization of S_u (as demand-determined) and equation (vi)’ we can find out S_u^* by solving the following equation:

$$S_u = D_u^0 \quad \dots \dots \dots \text{(viii)}$$

Putting equations (i)', (vii) and $F = F^0$ in expression (v) and then using equation (viii) we get,

$$S_u^* = D_u^{0*} = [(1 - \beta_u^0) / a_{fu}^0] \cdot \alpha_u^{0*} \cdot F^0 \quad \dots \dots \dots \text{(ix)}$$

This equilibrium is shown graphically by point E in Figure 3.

Furthermore, using $l_u^0 = 1$ equation (ix) gives:

$$Y_u^* = L_u^* = [S_u^* / (1 - \beta_u^0)] = [(\alpha_u^{0*} \cdot F^0) / a_{fu}^0] \quad \dots \dots \dots \text{(x)}$$

This last equation clearly shows that equilibrium output in NFS is determined by the level of food-supply to this sector (i.e. $\alpha_u^{0*} \cdot F^0$), given a_{fu}^0 .

Now, in presence of NFS only $(1 - \alpha_u^{0*})$ fraction of the aggregate food-supply is directed to the FS. Thus, FS faces shrinkage of food-supply to $[(1 - \alpha_u^{0*}) \cdot F^0]$ from F^0 (which would have been the supply of food to FS in absence of NFS). This supply-side squeeze reduces potential employment and output in FS. The size of real domestic exports is reduced accordingly and hence, FS contracts which is reflected by the movement of equilibrium position from E_1 to E_4 in Figure 2. Conversely, in presence of FS there is demand as well as supply-side squeeze on NFS reducing output and employment in this sector. Thus presence of one sector implies contraction for the other as both FS and NFS compete for the same set of resources represented by the generic food-constraint.

Proposition IV: We have a basic conflict between the FS and NFS in terms of employment and output in presence of agricultural-supply-constraint.

This fundamental conflict marks a significant departure from the orthodox literature which hides the very existence of NFS in traditional economy and thereby conceals the FS – NFS conflict. Moreover, this contradiction is found to be intensified with the introduction of development strategies intended to “modernize” the less-developed-economy.

2.5. Green Revolution

There are several studies (Hazell and Haggblade, 1990; see also, Lanjouw and Lanjouw, 2001) which try to support Mellor’s (1976) hypothesis that green revolution generates increased demand for locally produced labor-intensive non-farm goods and

services. But, the assertion that even the big farmer class could be the driving force for non-farm growth has been questioned by several researches (Harriss, 1991; Dunham, 1991; Saith, 1992).¹⁹

Green revolution implies rise in agricultural productivity. But in many cases it has caused land alienation for the small farmers leading to concentration of ownership (as mentioned earlier in endnote 6).²⁰ All these imply a rise in marketable surplus of food, F and a fall in n_1 representing a rise in land-ownership concentration.

Thus, F^0 rise to say, F' , while n_1^0 falls to say, n_1' . Hence, equation (iv) is modified as,
 $\alpha_u' = \alpha_u'(p_f/p_u, \theta, n_1', n_2^0) = \alpha_u'(p_f/p_u)$ (iv)'

Now, using equations (iv)' and $F=F'$, we have from equation (vi),

$$D_u = D_u'(p_u/p_f, \alpha_u', F) = D_u'(p_u/p_f) \quad \dots \dots \dots (vi)''$$

Comparing equations (iv) and (iv)' we can summarize:

$\alpha_u^0 < \alpha_u'$ as $n_1' < n_1^0$. Hence, in spite of $F' > F^0$, comparison between equations (vi)' and (vi)'' generates ambiguous result. Thus, $D_u' >, =, \text{ or } < D_u^0$. Consequently, the direction and extent of shift of the D_u^0 curve (Figure 3) is ambiguous and it depends on the extent of variations of F and n_1 .

Given equation (vi)'', the equilibrium condition (viii) is modified as,

$$S_u = D_u' \quad \dots \dots \dots (viii)'$$

Putting equations (i)', (iv)' and $F=F'$ in expression (v) and then using equation (viii)' we get a modification of equation (ix) and accordingly the new S_u^* as,

$$S_u^* = D_u'^* = [(1 - \alpha_u^0)/a_{fu}^0] \cdot \alpha_u'^* \cdot F'$$

Consequently, modifying equation (x) with $F = F'$ we have,

$$Y_u^* = L_u^* = [(\alpha_u'^* \cdot F')/a_{fu}^0]$$

As, $\alpha_u^0 < \alpha_u'$, the resultant impacts on S_u , Y_u and L_u are ambiguous. Only if the effect of rise in F dominates the contractionary effect of fall in n_1 , agricultural supply constraint gets relaxed. Consequently, demand for NFS products rises as well. This demand and supply side boosts help NFS to grow. However, contrarily, if the effect of rise in F is dominated by the contractionary effect of fall in n_1 , the NFS even contracts.

As the effect on α_u is contractionary, the value of $(1 - \alpha_u)$ rises. Hence, as F rises along with $(1 - \alpha_u)$ increase, the volume of supply of agricultural commodities to FS, i.e.

$[(1-\alpha_u).F]$ expands. Consequently, the effect of green revolution on FS is unambiguously positive.

Proposition V: Rise in agricultural productivity initiated through a policy of green revolution will have ambiguous effect on NFS, but it surely has expansionary impacts on FS.

If, however, green revolution occurs having distinct technological bias in favor of the rich farmers (as has happened in India), it is quite likely that the strong effect of fall in n_1 on α_u outweighs the effect of rise in F . Consequently, green revolution in agriculture squeezes down the NFS.

2.6. Crop-diversification and Contract Farming

In several developing countries withdrawal of government subsidy, deregulations of agricultural commodity trade, dismantling of public distribution system and many such contractionary policy steps are discouraging basic food-crop producing agriculture. On the contrary, export possibilities for certain sophisticated food items as well as shift of tastes and preferences of the richer sections of domestic population towards such products have induced “high-value-crop” (HVC) cultivation (World Bank, 2005, 2007). We try to capture the impacts of such “crop-diversification” in our following analysis.

HVC farming could serve well the course of modernization by providing (processed) food to the relatively well-off population engaged in FS and through supply of raw material for sophisticated processing meant primarily for exports (Sidhu, 2005; Singh, 2004). On the other hand, HVC cultivation could be a better option for farmers only if they have access to modern storage–processing–transportation facilities or have the ability to get attached with the big agro-business firms through corporate “contract farming” (Dev and Rao, 2005; Kumar, 2006). Thus, the whole chain of crop-diversification–processing–packaging–retailing could only be organized through firm–farm contract (Rao et. al, 2006; Sen and Raju, 2006). However, such contract farming ensures use of modern inputs and modern farm-services creating diversion of purchasing power in favor of “big city” products and thereby initiating substantial leakage of potential demand away from the labor-intensive NFS. On the other hand, agricultural diversification may jeopardize local and household level food security

creating significant supply-side squeeze on NFS. Hence, agriculture – NFS complementarities (symbiosis) are replaced with a tacit conflict and development of “modern” agriculture displaces rural non-agricultural population.

Let us assume that crop-diversification is not raising the level of agricultural productivity as such, it is rather occurring at the cost of crop-substitution.²¹ Hence, F remains unchanged. However, with crop-diversification there is a clear fall in n_2 . On the other hand, there is an induced decrease in n_1 due to the operation of two effects. First, with diversification there is land-alienation to some extent, especially for the small and marginal farmers who cannot independently practice diversified agriculture and transfer land rights to the bigger ones.²² Secondly, as crop-diversification is practiced by large agro-business firms under the institutional arrangement of contract farming, small and marginal farmers lose their independent decision-making power. This snaps the linkages between small farms based agriculture and NFS. The consequent effect on NFS is similar to that of increasing land-concentration.

As both n_1 and n_2 fall, from equation (iii) we can say that there is a clear decline in α_u from its initial value, α_u^0 .

Now, with unchanged F and reduced value of α_u , from equation (vi) it is clear that D_u falls unambiguously from its initial value of D_u^0 as derived from equation (vi)'. Consequently, D_u^0 curve in Figure 3 should shift to the left.

Given the fall in the value of D_u , we can infer from our basic model that the equilibrium values of S_u , Y_u and L_u must also fall unambiguously. Thus, NFS contracts.

On the other hand, as crop-diversification is practiced with crop-substitution, α_u falls unambiguously. Hence, $(1-\alpha_u)$ rises, raising the value of $[(1-\alpha_u).F]$. Thus, the FS gets a crucial supply-side inducement for expansion. This sector is doubly benefited if diversification of agriculture occurs through extensive cultivation and/or increase in cropping intensity, which raise the value of F over and above the increase in $(1-\alpha_u)$.

Proposition VI: The effect of crop-diversification on NFS crucially depends on whether it takes place through extensive cultivation and/or increase in cropping intensity or through crop-substitution. Diversification with crop-substitution and contract-farming unambiguously reduces the size of NFS. However, the corresponding effect on the FS is definitely positive.

Thus, the two comparative static analyses capturing the effects of green revolution and crop-diversification could be summarized in the following way: First of all, with modernization there is increasing dichotomization of the third world agriculture. While the modern and diversified segment of agriculture gets integrated with the modern FS having mutually beneficial effects, a large part of it still remains traditional. Secondly, modernization and segmentation of agriculture even though feeds the process of accumulation and growth in FS from the supply-side, this very process induces a contraction of NFS.

The contraction of NFS, in its turn, creates the “surplus population” as the mass of dispossessed cannot be employed in FS even though this sector is experiencing growth. We also argue that, this “surplus population” gets engaged in the informal sector (INFS).²³ Thus, a new form of dualism is produced endogenously through the process of growth of modern sectors and through modernization of parts of agriculture supporting this growth.

In spite of such a process of expansion of the sphere of accumulation a large part of the economy still remains non-capitalistic. There still remains the traditional agriculture and NFS of significant size outside the domain of capital. However, what is new is that, now we have a third component beyond the modernizing economy, i.e., the endogenously produced INFS. Conceptualization of this INFS and analyses of its interactions with other sectors constitute the next part of our paper. This formalization also brings out crucial departures from the orthodox literature.

III. FORMAL-INFORMAL DUALISM: COMPLEMENTARY OR CONFLICTING?

3.1. Basic Features and Notations of our Economy incorporating INFS

3.1.1. The Features are as follows:

(a) There are six sectors of a closed economy: a capitalistic FS, a modernized segment of agriculture producing HVC, a small farm based traditional agriculture producing low-value-food, non-capitalistic NFS and INFS and lastly the government sector.

(b) FS, modernized segment of agriculture and the government behave and also interact with each other in the same fashion as that of agriculture-FS-government inter-

linkage described earlier. The additional characteristic is that in the present case the total amount of marketable surplus of HVC is directed only to FS.

(c) The behavior of NFS and its interaction with agriculture is very similar to that discussed earlier with the additional feature that currently NFS interacts only with the traditional segment of agriculture producing low-value-food.

(d) Even if productions in both NFS and INFS are organized with the sole objective of consumption, there are subtle differences between the two. While NFS is essentially a subsistence economy of “petty commodity producers” without any net surplus (over and above food and non-food consumption and reproduction requirements), INFS is capable of producing surplus though it is not used for accumulation. Thus, “maximization of need” is the objective of production in INFS; it is the “need economy”.²⁴ This implies that, the real income in NFS remains at the subsistence for all levels of output and employment. But, we will see below that, the real income in INFS can increase depending on the expansion of food-supply to this sector. However, this increase in real income only improves the food and non-food consumption standard and does not trigger off accumulation.²⁵

(e) Though INFS is self-sufficient in both implements and non-food consumption and though there is surplus labor, it has to depend on agriculture for food. Food is obtained with the proceeds received through sale of output produced in it to agriculture. Thus agriculture-INFS trade is balanced.

(f) The rehabilitation of surplus population in INFS takes place in two alternative ways. First, INFS is boosted through the practice of “service sub-contracting” by FS which spends a part of its income to get its raw materials processed by the INFS (though sometimes commodities produced in INFS are also used in FS, labor-service constitutes the major part; hence such an assumption). Thus, INFS registers an “export surplus” vis-à-vis FS.²⁶ Secondly, the INFS is supported by government financing either through new money creation or by siphoning off expenditure on FS. This intervention is the crux of contemporary “development management” where government promotes INFS through different types of financing programs.

3.1.2. Notations are as follows:

(A) Notations (i) through (xxiii) of the section (2.3.2) and others used in section (2.4) are used with appropriate modifications.

(B) Few additional notations are required. Those are:

(i) Y_n : Level of INFS output. (ii) p_n : Price of INFS output. (iii) L_n : Aggregate employment in INFS. (iv) S_{fn} : Supply of food to INFS. (v) a_{fn} : Per capita food-consumption in INFS. (vi) F_1 : Aggregate marketable surplus of high-value-crop of modern agriculture. (vii) F_2 : Aggregate marketable surplus of low-value-crop of traditional agriculture. (viii) p_{f1} : Price of high-value-crop. (ix) p_{f2} : Price of low-value-crop. (x) D_{f1} : Aggregate food-demand from FS. (xi) D_{f2} : Aggregate food-demand from INFS. (xii) α_n : Fraction of aggregate agricultural income or that of aggregate marketable surplus of food used for transaction with INFS.

3.2. Working of our Extended Model

3.2.1. Interaction between FS, INFS, Agriculture and the Government

1. The interaction between FS, modern agriculture and the government is operating just as that between FS, agriculture and government as discussed in section 2.4. Hence, the corresponding analysis remains unchanged even in the present case.

2. Leakage of purchasing power from FS to INFS as FS practices service sub-contracting:

First, equation (7.1) is modified as:

$$Y = \alpha.Y + I^0 + \theta^1.(G^0/p_{f1}) - a.Y$$

Where, $\theta^1 = (p_{f1}/p_i)$, which is fixed just as θ in equation (3.2).

Here, p_f is replaced with p_{f1} as now, agriculture is divided into modern and traditional sectors and FS interacts only with the modernized segment. Secondly, “a” stands for fixed amount of INFS output (mainly labor-service) required to produce each unit of FS output and hence, the value (a.Y) is nothing but the “import surplus” of FS *vis-à-vis* INFS.

Subsequently, with $I^0 = 1$ as before, we have modification of equation (7.2) as:

$$L = \alpha.L + I^0 + \theta^1.(G^0/p_{f1}) - a.L$$

Solution of this gives us:

$$L^*=[I^0+\theta^1.(G^0/p_{f1})]/(1-\alpha+a) \quad \dots \dots \dots(a)$$

Using equation (10) and modifying equation (10.1) with equation (a), we get a modification of equation (10.2) as below:

$$D_{f1}=a_f^0.[I^0+\theta^1.(G^0/p_{f1})]/(1-\alpha+a) \quad \dots \dots \dots(b)$$

$$D_{f11}<0.$$

Equation (b) gives us a negatively sloped curve on “ D_{f1} - p_{f1} ” plane as in Figure 4.

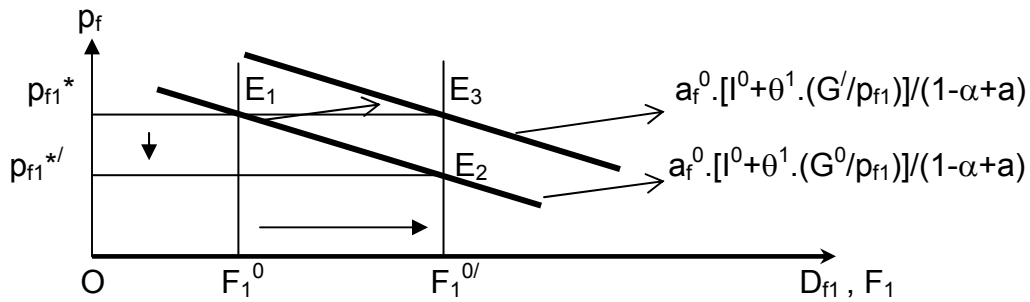


Figure 4: Food-market equilibria for modern agriculture – FS interaction

Now using the assumption of a given marketable surplus of high-value-food, $F_1=F_1^0$, we can derive the food-market equilibrium condition by modifying equation (12) as:

$$F_1^0=D_{f1}=a_f^0.[I^0+\theta^1.(G^0/p_{f1})]/(1-\alpha+a) \quad \dots \dots \dots(c)$$

Solving equation (c) we can have p_{f1}^* as shown in figure 4. This also solves for the equilibrium values of Y , L , g , p_i , w_m and D_{f1} .

An interesting result comes out by comparing equations (12) and (c). Even if there is a leakage of purchasing power from FS to INFS due to sub-contracting, the equilibrium levels of output and employment remain the same in FS with only a fall in equilibrium price of HVC if the condition, $F^0=F_1^0$ is satisfied. This happens because, the leakage of demand from FS on account of purchase of inputs (services) from INFS is just counter-balanced by an adequate expansion of real domestic exports under the condition of unchanging HVC supply to FS and given the income distribution between FS and modern agriculture. Moreover, there is the additional gain of INFS employment. Thus, the overall non-agricultural employment rises. However, to sustain this there has to be an adequate supply of food to INFS. Hence, there is no demand-side conflict as such between FS and INFS, the problem lies with the agricultural supply-constraint. It could

be shown that, in absence of domestic exports a demand-side conflict may indeed appear which, however, is conditional upon the existence of FS-INFS unbalanced trade.

3. Government provides developmental grants to INFS by siphoning off its expenditure on FS:

Given the state of adequate food-supply to both FS and INFS, the government can undertake expansionary policies to improve the conditions of production and consumption in INFS through fiscal measures. However, the counter-argument is that, this expansionary policy crowds out government expenditure that supports accumulation and growth in FS. But, in our model, even if a part of government expenditure is siphoned off to support INFS, there is no change in the size of the real domestic exports and hence no change in the levels of output and employment in FS, provided the level of food-supply to this sector remains unchanged. If nominal government expenditure on FS falls owing to diversion of fund to finance INFS, real domestic exports comes back to the initial level through price-wage fall, given the food-supply to FS. If, on the other hand, government finances INFS with new money creation the issue of crowing out is completely ruled out.

This whole analysis indicates that there is no demand-side conflict between FS and INFS. However, we express our doubts. We propose, even if it may seem that valorization of INFS is a costless process, in fact there is a supply-side trade-off involved in this case. To show this supply-side conflict involving INFS we have to bring in the issue of necessity of food for the very existence of this sector.

The linkage between FS and INFS obviously influences the levels of output and employment of the INFS. In fact, when FS expands, there is demand-driven expansion of L_n as a part of surplus labor gets engaged in informal activities. However, even if the expansion of FS raises the levels of employment in INFS, the corresponding effect on real income measured in terms of food solely depends on the interaction between INFS and agriculture. Now, there could be two alternative sources of food for INFS: the HVC producing segment or the traditional agriculture.

First we assume that the INFS is able to purchase HVC. The only revision of the modern agriculture-FS interaction that we have here is: instead of the whole amount of marketable surplus of food (F_1) only a positive fraction is directed to FS. Thus,

ultimately, Y^* and L^* as derived in absence of INFS are reduced in presence of INFS. We have a conflict between FS and INFS in terms of employment and output in presence of the generic agricultural-supply-constraint.

The logical reactions from the FS beneficiaries to this conflict could be to advocate for such policies that disentangle modernized agriculture from INFS and bring it closer to FS so that there is unhindered supply of HVC. Under such a situation the only option left for INFS is to depend on traditional agriculture. In fact, given the high prices of the products of modernized agriculture this seems to be a more logical option for INFS. However, this only transfers the FS-INFS conflict to the traditional economy, as a new conflict arises between INFS and NFS, given the food-supply-constraint set by traditional agriculture.

3.2.2. Interaction between Traditional Agriculture, INFS and NFS

We first formalise agriculture – INFS interaction. At the very outset we reiterate that now both INFS and NFS depend on traditional agriculture producing cheap food.

As the INFS is not a subsistence sector, its real income measured in terms of food should vary with agriculture – INFS t-o-t. Hence, we can specify the per capita food-demand in INFS as:

$$a_{fn} = a_{fn}(p_f/p_n), \text{ with } a_{fn1} < 0.^{27}$$

Hence, aggregate demand for low-value-food from INFS is:

$$D_{f2} = a_{fn}(p_f/p_n) \cdot L_n$$

Assuming the initial value of L_n to be L_n^0 , we have,

$$D_{f2}^0 = a_{fn}(p_f/p_n) \cdot L_n^0$$

In the INFS product-market there are many small producers and the competitive environment sets an upper-limit on price. The small producers cannot increase prices immediately and commensurately with fluctuations in costs out of fear of losing market share. However, the distinctive character of community collaboration (sharing) restricts the prices from falling to the minimum subsistence requirement either. Thus, long-term collaborative relationship among the producers, on one hand and between producers and consumers on the other, make the prices rigid in the short-run.²⁸ Furthermore, the modern FS while practicing sub-contracting prefers stable contracts with the sub-

contractor and hence a stable price is a suitable assumption. Consequently, we assume constancy of $p_n (=p_n^0, \text{ say})$.

A part of income per unit of INFS output (i.e., a part of p_n^0) is used for self-consumption and reproduction and another part is used to purchase food from traditional agriculture. The food-cost determines the residual income which is spent for non-food consumption and reproduction. Furthermore, as food-cost rises, the agents of INFS absorb this shock by reducing non-food expenditure, i.e., by cutting down “surplus consumption”. This is possible as initially the INFS producers are able to maintain their consumption-standard above the minimum subsistence level. Thus, with sticky INFS price, as food-price increases due to fall in food-supply, given price-inelastic per capita food consumption in INFS, fraction of expenditure on food rises reducing the corresponding fraction on non-food. This is plausible given the surplus producing ability of INFS producers.

Now, given $p_n=p_n^0$, aggregate demand for low-value-food from INFS becomes:

$$D_{f_2}^0(p_f/p_n^0, L_n^0)=a_{fn}(p_f/p_n^0).L_n^0$$

As $a_{fn1}<0$, $D_{f_2}^0<0$. Moreover, $D_{f_2}^0>0$.

Consequently, we have a negatively sloped $D_{f_2}^0$ curve on “ $D_{f_2}-p_{f_2}/p_n^0$ ” plane as in Figure 5. Furthermore, as L_n increases (decreases), D_{f_2} curve shifts to the right (left).

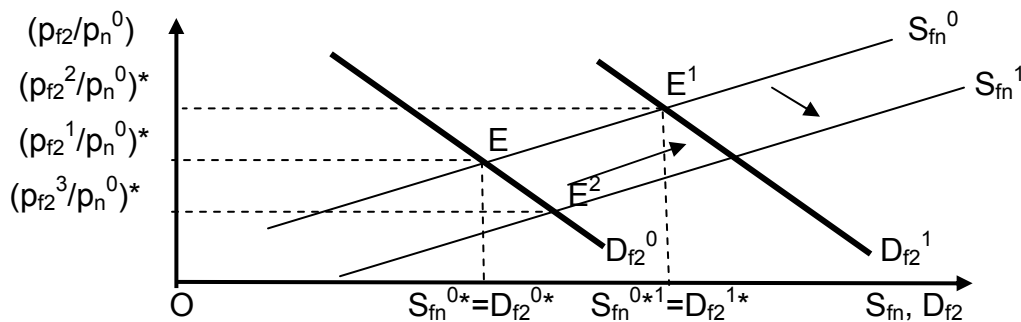


Figure 5: food-market equilibria for agriculture-INFS interaction

Next, we turn to the issue of food-supply to INFS. Let us first assume that the aggregate value of marketable surplus of low-value-food is given. Hence, $F_2=F_2^0$.

We know, α_n fraction of aggregate income of traditional agriculture is spent on INFS products and hence, under balanced agriculture-INFS trade, INFS obtains the same fraction of marketable surplus of food.

We assume α_n to be dependent on agriculture – NFS and Agriculture – INFS t-o-ts. Hence,

$$\alpha_n = \alpha_n(p_{f2}/p_n, p_{f2}/p_u)$$

$$\alpha_{n1} > 0, \alpha_{n2} < 0.$$

Using equation (i) (of last section with the obvious replacement of p_f by p_{f2} , as NFS interacts only with traditional agriculture) and $p_n = p_n^0$, we can formulate:

$$\alpha_n = \alpha_n(p_{f2}/p_n^0, (1-\beta_u^0)/a_{fu}^0) = \alpha_n(p_{f2}/p_n^0)$$

$$\alpha_{n1} > 0.$$

Using $F_2 = F_2^0$ and the expression for α_u , we can formulate the food-supply to INFS as:

$$S_{fn}^0(p_{f2}/p_n^0, F_2^0) = \alpha_n(p_{f2}/p_n^0).F_2^0$$

As $\alpha_{n1} > 0$, $S_{fn}^0 > 0$. Moreover, $S_{fn}^0 > 0$.

This gives us a positively sloped S_{fn}^0 curve on “ $S_{fn}-p_{f2}/p_n^0$ ” plane as in Figure 5. Furthermore, as F rises (falls) S_{fn} accordingly shifts to the right (left). As (p_{f2}/p_n^0) rises, given the t-o-t between agriculture – NFS as before, INFS product becomes relatively cheaper compared to NFS output. Hence, a larger share of income of traditional agriculture is spent on INFS reducing the proportion of expenditure on NFS. Under balanced trade this implies increased food-supply to INFS. This is captured by the positive slope of S_{fn} curve.

Now, we consider determination of equilibrium values of the variables, (p_{f2}/p_n^0) , a_{fn} , α_n , D_{f2}^0 , S_{fn}^0 . These values could be derived by solving the equation:

$$S_{fn}^0 = \alpha_n(p_{f2}/p_n^0).F_2^0 = D_{f2}^0 = a_{fn}(p_f/p_n^0).Y_n^0 \quad \dots \dots \dots (d)$$

Point E (figure 5) represents the solution of equation (d).

Here we have flexible t-o-t between INFS and traditional agriculture. Stated alternatively, to get additional units of INFS output the traditional agriculture has to guarantee higher real income in terms of food for all the agents working in INFS. Thus, increase in L_n and hence, that of Y_n as well are ensured through the inducement of increment in real income raising the value of a_{fn} . This endogenous movement of t-o-t in

favor of INFS and away from traditional agriculture is possible only through a rise in cheap food-supply to INFS.²⁹ Thus with a rise in food-supply, i.e., with a rightward shift of S_{fn} curve, the volume of agriculture – INFS trade expands and thereby agriculture receives higher amount of INFS output. Moreover, this increased volume of trade operates with tilting of t-o-t in favor of INFS. As food-supply to INFS increases, it gets absorbed through simultaneous rise in both a_{fn} and L_n . Thus, traditional agriculture is not facing any “realization problem”, even if there is no government intervention. It is possible because the sole objective of production in both INFS and traditional agriculture is satisfaction of “need”.

On the other hand, an exogenous rise in INFS employment (say, through government financing) shifts the D_{f2} curve altogether to the right. Under such expansionary situations employment in INFS rises unambiguously. But, the corresponding impact on real income measured in terms of food depends solely on food-supply to this sector. If food-supply does not increase commensurately, this expansion of INFS employment, in fact, reduces the real income for its agents. Thus, agricultural supply becomes crucial for INFS growth.

3.3. Rise in Agricultural Productivity through Technical Progress

3.3.1. Rise in Marketable Surplus of High-value-food

As the supply of high-value-food rises owing to technological progress, food-price falls leading to fall in w_m and p_i . As a result, FS output and employment expand through the consequent rise in real domestic exports given the nominal government expenditure. On the other hand, under this condition of rise in agricultural productivity, an appropriate rise in nominal government expenditure on FS can raise the level of real domestic exports without any change in prices. The expansionary effects of the rise in marketable surplus of high-value-food (from F_1^0 to $F_1^{0'}$) on FS are shown in Figure 4. Under the condition $G=G^0$, the economy moves from E_1 to E_2 . However, with rise in food-supply if nominal government expenditure on FS also rises from G^0 to G' , the economy moves to E_3 .

Given this expansion of FS, INFS also expands via sub-contracting. This generates more of employment in presence of surplus labor. Expansion of INFS employment, in its

turn, creates excess demand for low-value-food. This shifts the $D_{f_2}^0$ curve to $D_{f_2}^1$ as in Figure 5. It induces the food-market equilibrium to move from E to E^1 . Consequently, the agriculture-INFS t-o-t rises to $(p_{f_2}^2/p_n^0)^*$. Hence per capita food consumption in INFS (i.e. a_{fn}) has to fall. On the other hand, as (p_{f_2}/p_u) is fixed, this rise in (p_{f_2}/p_n^0) reduces the value of (p_n/p_u) . Thus, INFS product becomes cheaper for traditional agriculture relative to NFS output. As a result, the share of expenditure of traditional agriculture on INFS, i.e., α_n rises and that on NFS, i.e., $(1-\alpha_n)$ falls. Under agriculture-INFS balanced trade this also implies increased supply of food to INFS. Hence, we have movement of equilibrium along S_{fn}^0 .

Ultimately, though employment rises in INFS, there is a fall in real income measured in terms of food. But the most significant outcome of this process is that INFS expands at the cost of contraction of NFS. As $(1-\alpha_n)$ falls, given $F_2=F_2^0$, $[(1-\alpha_n).F_2^0]$ falls as well. This implies squeezing of food-supply to NFS. Consequently, NFS contracts with fall in output and employment, though real income in this sector remains unchanged with fixed agriculture-NFS t-o-t.

Proposition VII: With rise in productivity in HVC sector both FS and INFS expand in terms of employment. But it occurs on one hand at the cost of declining real income in the latter and on the other at the expense of contraction of NFS.

This constitutes the fundamental contradiction of development management. Modernization of agriculture and FS creates surplus population which is rehabilitated in INFS. However, this rehabilitation generates furtherance of contradiction shifted to non-modern segment of the economy.

3.3.2. Rise in Marketable Surplus of Low-value-food

Let us now assume that due to improvement in productivity in traditional agriculture production of low-value-food rises, which raises the level of marketable surplus F_2 as well. Generation of this surplus simultaneously creates excess demand for INFS output, which is captured in Figure 5 by a movement of food-supply curve from S_{fn}^0 to S_{fn}^1 . This induces expansion of output in INFS by inducing a real income rise and hence, an increase in employment. The result can be shown with the help of Figure 5 as the

movement of equilibrium position from E to E^2 . Consequently, demand for food from the INFS rises and thereby the surplus output of traditional agriculture gets absorbed.

However, as (p_{f2}/p_n) falls from $(p_{f2}^1/p_n^0)^*$ to $(p_{f2}^3/p_n^0)^*$ keeping (p_{f2}/p_u) unchanged share of expenditure of agriculture on INFS (also share of food-supply) i.e., α_n falls. Hence the impact of rise in F on INFS is countered by a fall in α_n . But, the resultant impact is a rise in $[\alpha_n \cdot F_2]$ which is captured by the movement of equilibrium from E to E^2 .³⁰

Let us now turn to agriculture-NFS interactions. As F_2 rises, we have seen that α_n falls. Thus, $(1-\alpha_n)$ rises and hence there is more than proportionate rise in food-supply to NFS (as both F_2 and $(1-\alpha_n)$ rise). This unambiguous rise in $[(1-\alpha_n) \cdot F_2]$ also raises the demand for NFS product from agriculture pushing up employment and output in NFS. This could be represented with figure 3 by a rightward shift of D_u curve.

On the other hand, an interesting outcome of this rise in output of traditional agriculture is that there is no impact on FS.

Proposition VIII: Increase in the level of marketable surplus of low-value-food raises real income and hence output in INFS. NFS gains more than proportionately in terms of employment and output, real income remaining fixed. However, it has no impact on FS. The political-economic implication of this result is that neither the capitalists nor workers of the FS nor the farmers of the modern agriculture would be interested in the development of traditional agricultural sector.

3.4. Rise in Nominal Government Expenditure on INFS

Now we consider a policy of promotion of INFS employment through transfer of developmental grants from the government. If a part of nominal government expenditure on FS is siphoned to induce INFS growth, we have seen earlier that it has no impact on FS so long as the supply of HVC to FS, i.e. F_1 remains unchanged. However, this will have impacts on INFS and NFS. As INFS employment expands due to expansionary policy of the government, demand for food from this sector rises pushing up p_{f2} . This raises the value of (p_{f2}/p_n^0) keeping (p_{f2}/p_u) unchanged. This implies that for low-value-food producing agriculture the INFS product becomes relatively cheaper compared to NFS output. It leads to reallocation of demand in favor of INFS and away from NFS

product. Hence, we have a rise in α_n . Consequently, $[\alpha_n.F_2]$ rises even if F_2 remains unchanged. Thus, increased fraction of food-supply and that of expenditure of traditional agriculture is now directed towards INFS. However, this implies a fall in $[(1-\alpha_n).F_2]$ leading to squeezing of both food-supply to and demand for NFS. Consequently, the D_u curve of Figure 3 shifts to the left inducing contraction of NFS. Thus, government effort to boost INFS squeezes the NFS in presence of food-supply-constraint facing INFS and NFS.

Proposition IX: This is the fundamental contradiction of development management: rehabilitation of the surplus population in INFS induces further expropriation within the traditional economy, as the INFS competes with NFS for given set of resources.

IV CONCLUDING REMARK

We have tried to explicate the different types of contradictions intrinsically present within the course of “doing development”. The very process of generation of growth through modernization creates the mass of dispossessed due to conflict between the modern and traditional segments of the economy in presence of the generic food-supply-constraint. Moreover, rehabilitation of this vast surplus population within the INFS either through governmental support or through inducements from modern economy creates further conflict within the non-modern sectors with furtherance of dispossession as the valorized INFS competes with the non-farm traditional economy for resources.

NOTES

¹ UN-Habitat (2003) notes that “(w)ith respect to urban poverty and slums, greater state involvement is, in fact, necessary now more than ever, especially in developing countries, given increasing levels of urban poverty, decreasing levels of formal employment and growing levels of income inequality and vulnerability of the urban poor” (pp. xxvii). Similarly, in rural areas state support to poor and marginalized through micro-credit institutions, self-help groups and NGOs is assuming significant position.

² It is opined by the U.S. Secretary of State C. L. Powell that “microenterprise (our informal sector) provides hope and concrete tools for the world’s poorest to improve their own lives and realize the basic dignity of self-sufficiency”. It is also noted that “(a)s these businesses expand and integrate into the formal economies of their countries, they empower the world’s poor, create higher incomes and more jobs, contribute to economic growth, and strengthen democratic societies” (Powell, 2004, p. 2). In fact for the past three decades, support for microenterprise development has been an important feature of U.S.

foreign financial assistance and a large part of it has been spent in building institutions to link small producers to large firms and lucrative markets (Simmons, 2004; see also Vasquez, 2004).

³ We can refer for this distributional rigidity the works of Kaldor (1984), Thirlwall (1986) and Bhaduri and Skarstein (2003).

⁴ The only case under which purchase of industrial products by agriculture creates home market is when such purchases are financed by loans from the industrial sector through the financial channel (using the instrument such as agricultural “commodity derivatives”). However, in the context of our study, the focus is on the role of expansion of agricultural output in creating a home market for industry. This does not happen even in the case under consideration.

⁵ Ranis and Stewart (1993), contrary to Hymer and Resnick’s (1969) claim of de-industrialization, point at significant existence of such activities in post-colonial Taiwan and Philippines. Moreover, during the initial years of planning in post-colonial India the existing small and cottage industry was considered as a very important source of cheap consumer goods and also a provider of sizeable employment.

⁶ While commenting on modernization of Indian agriculture in post-colonial period Rao and Storm (1998) observes, “with growing commercialization, the poorer groups.....have lost control over much of their resources through privatization of communal lands, including grazing lands, waste lands, forests and water resources” (pp. 212). Furthermore, there is increasing inequality within the farming community also as the “small farmers are handicapped by lack of resources for technological modernization” (ibid. p. 221). On the other hand, they also note that “employment opportunities within agriculture have shrunk relative to the growth of the workforce” (ibid. pp. 213).

⁷ Such alliances have been noted by Rao and Storm (1998, p. 217) in the context of New Agricultural Strategy of India. Recognition of existence of a “resilient mechanism for conflict management and transactional negotiations among the proprietary classes” of India can also be found in Bardhan (1998, p. 77). He argues that such a “political equilibrium of subsidies and patronage distribution” persists also in post-reform India (ibid. pp. 132-7).

⁸ Production takes place with the sole objective of consumption. This is the crucial characteristic of NFS. See, Sanyal (2007 pp. 211-3) in this regard.

⁹ Simple tools produced in NFS itself are used.

¹⁰ Between agriculture and FS, on one hand and between the former and NFS, on the other.

¹¹ As we will see below, “basic-food-crop” producing agriculture is much more integrated with NFS, while the “high-value-crop” segment is linked with FS.

¹² Small farm based agriculture is closely linked with NFS, though the big farmer class allies with the beneficiaries of FS (see below).

¹³ Unbalanced trade is financially unsustainable. Furthermore, it is only a simplifying assumption.

¹⁴ We consider a situation where all the contending groups, capitalists and workers of FS and the farmers (specifically the large ones) form separate lobbies and all lobbies are equally strong. Therefore, we have rigidity of FS real-wage and product-wage and hence, rigidity of agriculture-FS t-o-t. On the other hand, agriculture-NFS distribution cannot be altered as NFS is a subsistence sector (see below).

¹⁵ As we have assumed balanced trade between agriculture and NFS and a single (market) price for food, α_u represents fraction of both agricultural income and marketable surplus of food transacted with the non-farm sector.

¹⁶ A part of wage-bill though spent on food, it fully comes back to FS as agriculture-FS trade is balanced.

¹⁷ Since in our analysis we have assumed a fixed terms of trade, we can safely take food-supply as perfectly inelastic due to short-run natural, technical and institutional rigidities in agriculture. Furthermore, only a fraction of food-supply should go to FS in presence of NFS as we see below. However, for the time being we assume away such a presence of NFS. As we introduce NFS the relevant conditions will be modified.

¹⁸ There is a vast literature supporting such a claim. See for example Saith (1992).

¹⁹ Saith notes that “(a) widely cited feature of South Asian (and other poor agricultural) economies is a high degree of rural demand leakage through the pockets and spending patterns of the rural rich. The tastes and consumer preferences of this group are heavily biased in favor of items which are not produced by the rural non-farm sector” (1993, p. 17).

²⁰ We know Punjab (India) agriculture could reap the maximum benefits of green revolution in India. But at the same time it had experienced increasing concentration. The index of concentration of operational holding has risen sharply from 0.42 to 0.70 during 1970-1 to 1981-2, whereas for India as a whole this index has shown a marked decline during the same period (Mukherjee, 2007, p. 50).

²¹ In India crop-substitution’s contribution to diversification is 63.37 per cent, whereas for whole of South Asia it is 57.02 per cent (Joshi et al, 2004).

²² WBHDR (2004) reports that, land-alienation for the small owners is “highest in those areas where the alternative use of land, typically by larger scale operations (e.g. extension of tea estates, brackish water fish cultivation etc), has become more profitable” (p. 41).

²³ UN-Habitat (2003) highlights the enormous growth of slums across all the third world countries. In fact, there is almost one-to-one correspondence between slum population and urban INFS. Similarly, the World Bank (2007) notes that across the developing regions rural non-agricultural activities are growing very fast. In India during the period 1999-00 to 2004-05 the change in formal employment has been nil and the increase in total employment has been only of an informal kind (NCEUS, 2007, p. 4).

²⁴ See, Sanyal (2007).

²⁵ For such a categorization of INFS we can refer Ranis and Stewart (1993 and 1994). In recent writings this INFS has been projected as a dynamic sector capable of producing surplus. However, the difference between FS and INFS is that while in the former production is organized for accumulation in the latter it takes place with the sole objective of consumption.

²⁶ Even if INFS gains only at the cost of “import surplus” of FS, this also benefits FS as its costs of production reduces. This type of policy of sub-contracting has become extremely popular among modern firms in many developing countries. Furthermore, the FS may also transfer funds to promote INFS, which can be considered as a mark of “corporate social responsibility”.

²⁷ Per capita food-demand in FS is fixed through bargaining. But, in INFS a_{fn} depends only on food-availability, given the inability of INFS producers to change p_n unilaterally (see below).

²⁸ We can refer, Piore and Sabel (1984, p. 272-4), Tokman (1978), Mead (1984) and Varcin (2000) for different types of collaborative contracts among micro-entrepreneurs and consumers. Becattini (2004) notes that in case of the products of the micro-enterprises of industrial districts (similar to an INFS conglomeration) the prices are “affected by local demand and supply conditions, and, most importantly, by the stabilizing influence of local institutions, such as associations among.....producers, and the local customs” (pp. 27-8). These factors make the prices “sticky”.

²⁹ With rise in food-supply as the food-price falls, it induces an increase in a_{fn} . But, given the price-inelastic food-demand in INFS, this reduces the share of expenditure on food raising that on non-food boosting up non-food consumption. Thus, increased food-supply improves the overall standard of living in INFS.

³⁰ The resultant impact on INFS depends essentially on the elasticity of the D_{f2} curve, i.e., on the elasticity of a_{fn} .

REFERENCES

- Bagchi, A. K. (1988). “Problems of effective demand and contradictions of planning in India”, in A. K. Bagchi (ed.) *Economy, Society and Polity*, N.Delhi: Oxford University Press.
- Bangasser, P. E. (2000). “The ILO and informal sector: an institutional history”, *Employment Paper 2000/9*, Geneva, ILO (www.ilo.org, Informal Economy Resource Database).
- Bardhan, P. (1998). *The Political Economy of Development in India*, N.Delhi: Oxford University Press.
- Becattini, G. (2004). *Industrial Districts: a New Approach to Industrial Change*, Aldershot: Edward Elgar.
- Bhaduri, A. and R. Skarstein (2003). “Effective demand and the terms of trade in a dual economy: a Kaldorian perspective”, *Cambridge Journal of Economics* 27:4, pp. 583-95.
- Chakrabarti, S. (2003). “Agriculture – industry linkage: the problems of effective demand and supply constraint”, *Review of Development and Change* 8:2, pp. 145-70.
- Davis, M. (2004). “Planet of slums: urban involution and the informal proletariat”, *New Left Review* 26, March-April, pp. 5-34.

- Dev, S. M. and N. C. Rao (2005). "Food processing and contract farming in Andhra Pradesh: A small farmer perspective", *Economic and Political Weekly* 40:26, pp. 2705-12.
- Dunham, D. (1991). "Agricultural growth and rural sector: some reflections on the rural growth linkages debate", *Working Paper* 114, The Hague: Institute of Social Studies.
- Haggblade, S., Hazell, P. and J. Brown (1989). "Farm-non-farm linkages in rural Sub-Saharan Africa", *World Development* 17:8, pp. 1173-1201.
- Harris, J. and M. P. Todaro (1970). "Migration, unemployment and development: a two-sector analysis", *American Economic Review* 40, March, pp. 126-42.
- Harris, J. (1991). "Agriculture / non-agriculture linkages and the diversification of rural economic activity", in J. Breman and S. Mundle (eds) *Rural Transformation in Asia*, India: Oxford University Press.
- Hazell, P. and S. Haggblade (1990). "Rural-urban growth linkages in India", *PR Working Paper* 430, World Bank.
- Hymer, S. and S. Resnick (1969). "A model of an agrarian economy with non-agricultural activities", *American Economic Review* 59:4, pp. 493-506.
- Joshi, P. K., Gulati, A., BIRTHAL, P. S. and L. Tewari (2004). "Agriculture diversification in South Asia: Patterns, determinants and policy implication", *Economic and Political Weekly* 39:24, pp. 2457-68.
- Kaldor, N. (1984). "The problem of intersectoral balance", in *Causes of Growth and Stagnation in the World Economy* (Mattioli Lectures), Cambridge: Cambridge University Press (1996), pp. 39-54.
- Kalecki, M. (1934). "On foreign trade and 'domestic exports'", in *Selected Essays on the Dynamics of the Capitalist Economy*, Cambridge: Cambridge University Press (1971).
- _____ (1954). "The problem of financing economic development", in J. Osiatynski (ed.) *Collected Works of Michal Kalecki*, Oxford: Clarendon Press (1993), Vol. 5, pp. 45-60.
- Kumar, P. (2006). "Contract farming through agribusiness firms and state corporation: a case study in Punjab", *Economic and Political Weekly* 41:52, pp. 5367-75.
- Lanjouw, J. O. and P. Lanjouw (2001). "The rural non-farm sector: Issues and evidence from developing countries", *Agricultural Economics* 26:1, pp. 1-23.
- Lewis, W. A. (1954). "Economic development with unlimited supplies of labor", *Manchester School of Economic and Social Studies Journal*, May.
- Maloney, W. F. (2004). "Informality revisited", *World Development* 32:7, pp. 1159-78.
- Mead, D. C. (1984). "Of contracts and subcontracts: small firms in vertically disintegrated production/distribution systems in LDCs", *World Development* 12:11-12, pp. 1095-1106.
- Mellor, J. W. (1976). *The New Economics of Growth – A Strategy for India and Developing World*, New York: Cornell University Press.
- Mitra, A. (1977). *Terms of Trade and Class Relations*, London: Frank Cass.

- Mukherjee, A. (2007). “Bharatiya krishir charitrayan (Characterization of Indian agriculture)”, in A. Mukherjee, R. Khasnobis and P. Sinharoy (eds) *Arthaniti, Samaj O Sanskriti*, Kolkata: People’s Book Society.
- Mundle, S. (1977). “Home market capitalism in agriculture and drain of agricultural surplus”, *Economic and Political Weekly*, June, A49-A54.
- NCEUS (2007). *Report on Conditions of Work and Promotion of Livelihoods in the Unorganized Sector*, National Commission for Enterprises in the Unorganized Sector, Govt. of India, www.nceuis.nic.in
- Piore, M. J. and C. F. Sabel (1984). *The Second Industrial Divide: Possibilities for Prosperity*, New York: Basic Books.
- Powell, C. L. (2004). Forward to *Microenterprise: Laying the Foundation for Economic Development*, *Economic Perspectives*, <http://usinfo.state.gov/journals/journals.htm>, Vol. 9:1&2.
- Preobrazhensky, E. (1926). *The New Economics*, Oxford: Clarendon Press.
- Ranis, G. and J. Fei (1961). “A theory of economic development”, *American Economic Review* 51:4, pp. 533-65.
- Ranis, G. and F. Stewart (1993). “Rural non-agricultural activities in development: theory and application”, *Journal of Development Economics* 40:1, pp. 75-101.
- _____ (1994). “V-goods and the role of the urban informal sector in development”, *Centre Discussion Paper 724*, Yale University: Economic Growth Centre.
- Rao, J. Mohan, and S. Storm (1998). “Distribution and growth in Indian agriculture”, in T. J. Byres (ed.) *The Indian Economy: Major Debates since Independence*, India: Oxford University Press.
- Rao, P. P., Birthal, P. S. and P. K. Joshi (2006). “Diversification towards high value agriculture: Role of urbanization and infrastructure”, *Economic and Political Weekly* 41:26, pp. 2747-53.
- Ricardo, D. (1815). “An essay on the influence of low price of corn on the profits of stocks”, in P. Sraffa (ed.) *Works and Correspondence of David Ricardo*, Vol.1, Cambridge: Cambridge University Press.
- Saith, A. (1991). “Asian rural industrialization: context, features and strategies”, in J. Breman and S. Mundle (eds) *Rural Transformation in Asia*, India: Oxford University Press.
- _____ (1992). *The Rural Non-Farm Economy: Processes and Policies*, Geneva: ILO.
- _____ (1993). *Chinese Rural Industrialization: Some Lessons for Reforming and Developing Economies*, N. Delhi: ILO-ARTEP.
- Sanyal, K. (2007). *Rethinking Capitalist Development: Primitive Accumulation, Governmentality and Post Colonial Capitalism*, N. Delhi: Routledge.
- Sen, A. (1988). “The concept of development”, in H. Chenery and T. N. Srinivasan (eds) *Handbook of Development Economics*, Vol. 1, North Holland.
- Sen, S. and S. Raju (2006). “Globalization and expanding markets for cut-flower: who benefits?”, *Economic and Political Weekly* 41:26, pp. 2725-31.

- Sidhu, M. S. (2005). "Fruits and vegetables processing sector in India: An appraisal of the post-reform period", *Economic and Political Weekly* 40:28, pp. 3056-61.
- Simmons, E. (2004). "The role of microenterprise assistance in U.S. development policy", *Economic Perspectives*, <http://usinfo.state.gov/journals/journals.htm>, Vol. 9:1, pp. 6-9.
- Singh, S. (2004). "Crisis and diversification in Punjab agriculture: Role of state and agribusiness", *Economic and Political Weekly* 39:52, pp. 5583-9.
- Thirlwall, A. P. (1986). "A general model of growth and development along Kaldorian lines", *Oxford Economic Papers* 38, pp. 199-219.
- Tokman, V. E. (1978). "Competition between the informal and formal sectors in retailing: the case of Santiago", *World Development* 6:9&10, pp. 1187-98.
- UN (1999). *Rural Industrialization as a Means of Poverty Alleviation*, New York: Economic and Social Commission for Asia and the Pacific, United Nations.
- UN-Habitat (2003). *The Challenge of Slums: Global Report on Human Settlements 2003*, United Nations Human Settlements Program, London and Sterling: Earthscan Publications Ltd.
- Varcin, R. (2000). "Competition in the informal sector of the economy: The case of market traders in Turkey", *International Journal of Sociology and Social Policy*, Vol. 21:3&4.
- Vasquez, G. (2004). "Paving the way for entrepreneurs to enter the market economy", *Economic Perspectives*, <http://usinfo.state.gov/journals/journals.htm>, Vol. 9:1, pp. 10-12.
- WBHDR (2004). *West Bengal Human Development Report*, India: Development and Planning Department, Government of West Bengal.
- World Bank (2005). *India – Re-energizing the Agricultural Sector*, India: Oxford University Press.
- World Bank (2007). *Agriculture for Development*, World Development Report 2008, Washington, DC.

Contact Information:

Dr. Saumya Chakrabarti
Senior Lecturer in Economics,
Department of Economics and Politics;
Vidya-Bhavana;
Visva-Bharati (University);
Santiniketan-731235.
West Bengal, India
Tel: +91-9433179970
E-Mail: saumyavb72@yahoo.co.in and saumya.chakrabarti@visva-bharati.ac.in

On Delegating the Distribution Role of Central Government to State Governments: Some Political Economy Issues

Sanjeev K. Sobhee

University of Mauritius

Abstract: While empirical findings remain unsettled on whether greater fiscal decentralization would improve state level equity, there is no unique theoretical model that provides for such basis. Simultaneously, there is rather scant knowledge on the theoretical consequences of deepening fiscal federalism on the trade-off between efficiency and equity in delivering local public goods. Hence, the purpose of this paper is to bridge these gaps and develop a hypothetical scenario of ascertaining the effects of delegating conventional central government's commitment to combat income inequality to state-level governments instead. Our results unfold that devolvement of such responsibility may improve state level equity but at the expense of state level efficiency under specific circumstances. However, our findings are indeed susceptible to the magnitude of specific random events affecting local states relative to federal government and the degree of commitment of state governments. Further scenarios are discussed to track the endogeneity of local politicians and bureaucrats in this redistributive process. In particular, their strategic motives are found to yield contradictory, if not ambiguous, results that question out the entire issue of delegation.

JEL Classification: H7, H72, H77

Key Words: Intergovernmental Relations, Fiscal Federalism, State and Local Government Budget and Expenditures

I. INTRODUCTION

Fiscal decentralization has been perceived as a major practical arrangement between central and state governments in conducting fiscal actions that would result in better efficiency in the allocation of public goods and services (Tiebout, 1956; Musgrave, 1959; Oates, 1972; and Tanzi, 1995; amongst others). Such arrangement in fact is based on the premise that local preferences would be best reflected in the provision and supply of public and hence local goods. The informational advantage which local governments possess helps them to capture the median voter's set of preferences for local public goods better. Lane (1993) and Paul (1988) have argued that efficiency in the delivery of local services would be ensured whenever information and knowledge are properly disseminated, the pertinent characteristics of local populations are captured and scale economies are reaped. Needless to say, the benefits of localizations in terms of reduced transport costs and better co-ordination of fiscal actions, through

proper management of resources, would culminate into an efficient delivery of local public goods.

Whether fiscal decentralization would actually bring about an improvement in efficiency depends very much on a host of institutional factors. Empirical results have shown that political economy considerations, particularly encompassing bureaucrats and local politics, may have a significant bearing on the effective use of public sector resources at the state level. The scenario is indeed further complicated when locally elected parties do not belong to the same ruling party at the centre level and who may be reluctant to adhere to administrative principles and standards set by the centre. Resulting clashes and conflicts undeniably upset the entire fiscal exercise, whereby local revenue, expenditure and grants may fail to yield desirable efficient outcomes. On the other hand, in an environment void of political conflicts in which bureaucrats are more responsible and accountable, then decentralization would breed the expected efficient outcomes.¹

Similarly, to what extent may fiscal decentralization lead to equity gains remains yet a puzzle and more so due to its intertwining relationship with efficiency. It is well known in the literature of public finance that there exists a trade off between equity and efficiency (See Grueber, 2006; and Musgrave, 1959) in providing general public sector services. Equity gains may be derived for the current generations through well-crafted channels that target specific marginalized segments of the local population, for instance, educational transfers (vouchers), social insurance programs and support-grants that may not necessarily entail efficient outcomes (Grueber, 2006). Pauley (1973) and Brown and Oates (1987) have also highlighted the role of state governments in alleviating poverty and redistribution issues. But, there are interactive elements characterized by institutional imperfections that would prevent a socially-desirable output quality. Oates (1985) has further highlighted that equity gains may be problematic if Tiebout scheme of taxes predominates whenever people vote with their feet. Moreover, it has been shown that equity gains may be distorted due to political economy complexities, such as the existence of local pressure groups, lobbying, strategic bureaucrats and self-interested politicians.² Mismanagement of funds may lead to x-inefficiency that would not necessarily guarantee equity gains. An

improvement in efficiency may not, for certainty, be complemented with an improvement in equity. Keen at maximizing their chances of being re-elected, local politicians may blatantly inflate local budgets and choose to provide more financial assistance to the deprived ones. Clearly, this policy would culminate as adverse local public budget deficits should tax liabilities remain constant. In this context, the vote maximizing politician,³ being the sponsor, may collude with the budget maximizing bureaucrat, as an agent in the whole redistributive framework, to achieve collective selfish ends.

Altogether, equity issues may be analyzed from an inter-temporal perspective in which current exploitation of some form of natural resources imposes a liability on future generations. Local administration of minerals, for instance, in a particular state rich in such natural resources is believed to provide more efficient allocation of resources outcomes. Proximity, local expertise and closer monitoring would help towards better management. However, there is no guarantee from what has been said above with respect to principal-agent problems and political economy intricacies that such devolvement of responsibilities would improve income distribution within and across generations. It can thus be deduced that efficiency or equity gains would largely depend on the strategic roles played by sponsors and administrators involved in providing local public goods.

To date, theoretical models of fiscal federalism that elucidate the potential relationship between equity and efficiency and the consequences of delegating the distributive role of the centre to state governments have been undermined. There is a lot of emphasis however that state governments may be better placed to reduce income inequality and combat poverty especially in developing economies (see for instance, Ramessur, 2006; World Bank, 2003; Foster et al 2001; Ladd and Doolittle, 1992; and Pauley, 1973). But, there is no formal approach to elucidate these consequences and the potential political economy implications in this direction. Thus, the purpose of this paper is to fill up this gap by constructing a theoretical scenario in which there is delegation of this specific fiscal role. Rest of the paper is organized as follows; in section 2 a theoretical framework is designed and which is further augmented in section 3 to address some more pertinent political economy issues, while the last section concludes.

II. THE FRAMEWORK

We hypothesize a scenario in which the distributive role of the centre is delegated to each state level government under the following assumptions:

- A trade-off exists at the central government level between equity and efficiency (this follows from Grueber, 2006; and Musgrave, 1959).⁴ In a median voter's setting one could refer to Sobhee (2003) and Cornes and Sandler (1996) who highlighted that there is a crowding effect in trying to cater for larger populations in supplying public goods that result automatically in poor quality of service delivery.
- Central government is at the very outset more concerned in delegating efficiency than equity to lower levels of government, which is the conventional approach to federalism emphasized by Oates (1972).
- Efficiency in the model relates to management of consolidated public expenditure levels, sound delivery of public goods and services and monitoring of overall public sector administration while equity would refer to the evolving status of income (in)equality.
- Both equity and efficiency of the centre are based on an equally weighted average of all states' levels of equity and efficiency.
- A stochastic variable also influences the trade-off relationship due to unanticipated shocks or events. It is common place to include this variable to capture deviations from anticipated outcomes.

Recognizing a trade-off between the two objectives, that is, in achieving efficiency and in yielding equity gains, the social planner is assumed to derive utility by minimizing deviations from targeted values or bliss points for these two aggregates (equity and efficiency). Hence, any distortionary element that triggers this deviation results in a loss of utility. We consider two scenarios of delegation and no-delegation of the redistributive role of the centre to compare outcomes. These are discussed below sparingly.

In the Absence of Delegation (The Conventional Model of Fiscal Decentralization)

Based on the above definitions, we posit that the central government faces the following problem:

$$e_t - e^* = g_t + u_t \quad (1)$$

Where “e” = efficiency level and “e*” relates to that bliss level of efficiency which will minimize inequality, “g”, to neutrality, particularly, in the absence of disturbances⁵, captured by the term “u”. While “g” would refer to a standard measure of inequality such as the Gini coefficient, the efficiency variable could be tracked by another standard measure (following the definitions provided in O’Dwyer and Ziblatt, 2006) where total of Central Government Consolidated Expenditure is divided by total of Public Sector Employees. An increase in “g” would thus indicate greater inequality while an increase in “e” would reflect greater productivity in providing social goods. The term “u” has well behaved first and second moments with zero mean and constant variance. The presence of the term “u” makes the model stochastic rather than deterministic to reflect the reality whenever unanticipated events alter the course of informed decision-making. As is customary, “t” stands for time subscript. In addition, the relationship given in equation (1) between equity and efficiency is inverse as postulated earlier. An increase in inequality of income indicated by an increase in “g” leads to a rise in efficiency level captured by a higher value of “e”.

Equation (1) can be re-written for the sake of tractability in terms of:

$$e_t = e^* + g_t + u_t \quad (2)$$

Moreover, $e = \frac{1}{n} \sum_i^n e_i$ and $g = \frac{1}{n} \sum_i^n g_i$, where letter “i” refers to an individual state.

The model assumes that hypothetically “n” number of states falls under the responsibility of the central government. Thus, the efficiency level and the income inequality status are derived from an unweighted average of the state level conditions for these two aggregates.

Therefore, with these properties, the centre faces the following quadratic social loss function:

$$L(g_t, e_t) = \frac{1}{2}(g_t - g^*)^2 + \frac{1}{2}b(e_t^c - e^*)^2 \quad (3)$$

In this equation, “b” is a positive parameter which also captures the degree of commitment of the central government to reduce the deviation between actual and expected level of efficiency and also acts as an inequality-averse parameter. Besides, e_t^c represents a complete and consistent definition of government as is normally defined by the consolidated central government expenditure.

Using definitions given for e_t^c and equation 2, by substituting $g^* = 0$ in equation (3), we have:

$$L(g_t, e_t) = \frac{1}{2}(g_t)^2 + \frac{1}{2}b(e_t - e^*)^2$$

$$L(g_t, e_t) = \frac{1}{2}(g_t)^2 + \frac{1}{2}b(e^* + g_t + u_t - e^*)^2$$

$$L(g_t, e_t) = \frac{1}{2}(g_t)^2 + \frac{1}{2}b(g_t + u_t)^2$$

In the first instance, central government assumes the responsibility of combating income inequality as reckoned in the standard literature on decentralization.

Taking first order conditions, we have:

$$\begin{aligned} \frac{\partial L}{\partial g} &= g_t + b(g_t + u_t) = 0 \\ \Rightarrow g_t(1 + b) + b(u_t) &= 0 \end{aligned}$$

$$\text{such that, } g = \frac{b(-u)}{(1+b)} \quad (4)$$

Equation (4) indicates that optimal inequality is determined by the stochastic term u and the parameter that characterizes the quadratic social loss function, in particular, the inequality-averse parameter “ b ”. For more profound analysis in terms of tracking the variability of “ g ” across different time periods, we choose to find the variance of this aggregate as follows:

$$\text{Var } g = \left(\frac{b^2}{(1+b)^2} \right) (\sigma^2 u) \quad (5)$$

Equation (5) shows that the variance of “ g ” would depend positively and uniquely on the variability of the disturbance. Put differently, unanticipated shocks affecting the central government decision-making on efficiency and equity would create more instability in the redistributive role of the government.

In the Presence of Delegation

Now, we consider an alternative scenario in which the central government opts for delegating to the state government the responsibility of combating income inequality at the regional level itself. In this scenario, the whole optimization exercise would be rekindled and undertaken at the state government level⁶, precisely as indicated below:

$$L(g_{it}, e_{it}) = \frac{1}{2} (g_{it})^2 + \frac{1}{2} b_i (e^c_{it} - e_i^*)^2 \quad (6)$$

Where $b_i < b$, since state level government (indicated by the *ith* order here) would be more concerned with reducing poverty and inequality rather than efficiency. In other words, this lower level government would be more inequality-averse in comparison to the centre. The term e_i in this modified specification would reflect efficiency at the state

level measured as total expenditure on local public goods divided by total employment by the state government. Henceforth, the choice of b_i would be as follows:

$$\text{Select } b_i \in (0, b) \text{ such that } b_i = \text{Max} (b - b_i)$$

Under such assumptions, the following result is obtained by symmetry for the inequality variable.

$$g_i = \frac{b_i(-u_i)}{(1+b_i)} \quad (7)$$

Hence, equation (7) conveys that in this proposed framework of devolution, where state governments are empowered fiscally to combat inequality, the resulting outcome on inequality would depend on the magnitude of error term u_i and how tough the state government would be in combating income inequality. Additionally, if we consider the variance of (7), for the sake of comparing with (5), the following output is generated:

$$\text{Var } g_i = \left(\frac{b_i^2}{(1+b_i)^2} \right) (\sigma^2 u_i) \quad (8)$$

This equation shows that if the variance of unanticipated shocks occurring at the state level is equalized to that of the central government's we would expect $\text{Var } g_i < \text{Var } g$. This is precisely when we consider normalizing the variances of shocks and considering them to be a numeraire identical to unity. What also follows from such assumption is a corresponding increase in the variability of efficiency at the state level. From our definition of efficiency, it follows that employment at state level departments would be rising faster than output of state level governments translating into lower quality of service delivery for local public goods.⁷ More formally, the decline in efficiency can be expressed in terms of:

$$e = 1/n \sum_1^n e_i = e^* + [1/n \sum_1^n g_i] + u_i$$

Lower values of e would simply increase g , implying that an improvement in intra-state equity g_i would lead to intra-state and, other factors remaining constant, increasing central government inefficiency too.

However, we do not constrain our model by simply normalizing the error terms but go further to unveil other implications whenever the shocks are allowed to vary. The variability of the inequality index as revealed by equation (7) would depend on the variability of the random error term associated with unanticipated events that ultimately impact policy making occurring at the state level. It is actually this error term that determines whether state level government would be more effective in combating income inequality. Clearly, sometimes there are events which are specific to a given state or region especially when size of a country is large like the US, Argentina, India and China that may not adversely affect the whole country. For instance, a specific shock such as a huge hurricane or spread of agricultural diseases affecting a given state may have a significant bearing on the local economy. Hurricane Katrina affecting the New Orleans has had disastrous consequences on the local economy while having unparallel impact on other states and the federal government. Alternatively, there might be policy shocks due to unanticipated international events that would affect badly the central government but that do not necessarily transcend into wide shocks and impact equivocally state governments. By and large these random phenomena illustrate how and why local decision making could be a complex process that may easily deviate from targeted objectives.

These results should be treated with care at this stage since politicians, as sponsors, and bureaucrats, as agents, involved in the decision-making process of local public goods, have not been considered so far. In the next section, we extend our model and results to encompass the strategic roles played by these two groups. Our approach builds and stretches the principal-agent interaction in the fiscal decentralization literature as established by Tanzi (1995), Prud'homme (1994) and Oates (1994).

III. ENDOGENOUS POLITICIANS AND BUREAUCRATS AND THE POLARIZATION OF POLICIES

Bureaucrats and politicians may not always be exogenous when it comes to providing local public goods. They could easily strategize their status and become influential in the decision-making framework and hence distort the whole delivery exercise of local goods and services. In fact, empirical results on the impacts of decentralization on equality of income are rather mixed indicating that it is not always easy to predict whether greater devolution would necessarily have a positive outcome on efficiency and equity. Tanzi (1995) and Prud'homme (1994) clearly provide channels through which decision making at the local level may be subjected to the whims and caprices of bureaucracy and local politics. Hence, this section introduces certain attributes that characterize “b” – the inequality-averse parameter to encompass local politics involved in policymaking. Put differently, parameter “b” now becomes a variable element that would be determined by an interactive process and dictated by politicians and bureaucrats. The power, and hence influence, of each group of agent depends on the type of information set - its completeness, degree of accuracy and accessibility. It is instructive to note that politicians who are the sponsors are also vote-maximizers while the bureaucrats are budget-maximizers looking for perquisites and fame.

In this respect, the optimization model is revitalized and posited as follows:

$$\text{Max } L(g_i, e_i) = \frac{1}{2} (g_i)^2 + \frac{1}{2} \left[\left((b)^\gamma \right)^\alpha \right]_i (e_i - e_i^*)^2$$

Where γ and α denote respectively the influence of politicians and bureaucrats. Both are positive and the more complete the information set, the greater will be the value of the inequality-averse parameter. The effects of differing levels of power on the value of ‘b’ and hence on equity and efficiency trade-off would be subject to the following scenarios:

Scenario I: Case of stable politics (centre and state belong to the same regime or are void of conflicts) and passive bureaucrats

Here, $\gamma = 1$ and $\alpha = 1$, such that $b^*_i = \left((b)^\gamma \right)^\alpha = b_i$, as in the original model. Here there is no ambiguity in predicting the established results.

Scenario II: Case of stable politics (centre and state belong to the same regime or are void of conflicts) but active and strategic bureaucrats

Here, $\gamma = 1$ and $\alpha > 1$, such that $b^*_i > b_i$, where this time devolution may worsen income inequality but improve efficiency. Local government output increases faster than local government employment. The improvement in efficiency would reflect an increase in state-level budgets consistent with the objective of a bureaucrat as well, albeit carefully crafted such that his strategic behavior is not called into question.

Scenario III: Case of unstable politics (centre and state do not belong to the same regime or are not void of conflicts) and passive bureaucrats

Here, $\gamma > 1$ and $\alpha = 1$, such that $b^*_i > b_i$, where again devolution may worsen income inequality but improve efficiency, whether the outcomes would be worse than in scenario II would depend on the completeness of information set. If bureaucrats have superior information, they will be more influential and hence inequality may not be worse than in II.

Scenario IV: Case of unstable politics (centre and state do not belong to the same regime or are not void of conflicts) and active bureaucrats

Here, $\gamma > 1$ and $\alpha > 1$, such that $b^*_i > b_i$, where once more devolution may worsen income inequality but improve efficiency. This would be the worse scenario, with highest adverse impact on income inequality. So here also, it is expected that public budgets would increase at the state level but the magnitude may not be as high as in Scenario II. An improvement in efficiency suggesting an overall commitment in the supply of local goods by local administrators and the sponsors may bring more votes, especially in a state where poverty or the segmented population may have little political say or is a minority.

Scenario V: Case of neutral inequality-aversion

Here, $\gamma = 0$ and $\alpha = 0$, such that $b^*_i = 1$. If these values are replaced in the state-inequality reduced form function, the following result is obtained (assuming normalized errors as discussed above):

$$g_i = [(-u_i)/(2)] > g$$

In other words, state-inequality, after devolution, would depend uniquely on the random elements as captured by the shock variable u_i . If these shocks are lower than those of the centre, unambiguously, state level income equality will improve.

IV. CONCLUDING REMARKS

This paper has developed a theoretical framework in which the central government delegates its fiscal responsibility to the state-level government of combating inequality of income through a process of devolution. We assume that the social planner optimizes its welfare function by minimizing a quadratic-loss function which encompasses a trade-off between equity and efficiency in managing fiscal affairs. It is found that greater fiscal decentralization, through delegation, would result in more equity that would however compromise with efficiency whenever state government is empowered to combat inequality of income. This result is conditional upon the policy shocks that affect the central and local governments and the degree of commitment of the latter to achieve equity gains. Under the strict assumption of identical shocks, it is found that delegation as is understood in this paper would result in greater equity. However, when policy shocks are asymmetric and typically significant, they may influence adversely the inequality variable and make it worse than the case of no delegation. Worsening efficiency would indicate an increase in employment in state level departments faster than state level spending on public goods. The overall delivery of local goods and services would be sluggish or inferior in quality. Such results are consistent as long as politicians and bureaucrats do not have vested interest to start influencing the end results through manipulation of budgetary motives. Five scenarios are worked out to capture the potential endogeneity of bureaucrats and politicians in the local decision-making framework. In fact, it is observed that, under varying political economy assumptions, inequality would differ in magnitude and direction depending on who really holds an informational advantage. All in all, it is also deduced that the interaction of

such agents would complicate the redistribution outcomes that may worsen rather than improve inequality.

ENDNOTES

¹ In fact, the paper by Tanzi (1995) highlights several potential avenues through which efficiency gains would either depend or be constrained by local bureaucracy as well as local politics.

² Bahl (1990) and Tordoff (1988) dispute the cases of developing countries in which there are failures in redistributing wealth through fiscal decentralization instruments.

³ See Rogoff and Siebert (1988) and Nordhaus (1975) with respect to models of vote-maximizing politicians.

⁴ Standard public economics literature provides several instances on such trade-off, for instance, in determining optimal taxation or minimizing dead-weight losses across economic agents or in using means-tested schemes to help low income households.

⁵ Observe here that if we apply the expectations operator E to this equation conditional on a complete information

set Ω such as: $[E_t / \Omega_t] = E_t [(e_t - e^*) / \Omega_t] = E_t (g_t)$, we would obtain $e_t - e^* = g_t$

⁶ Without loss of generality, we maintain the same assumptions for the state governments as well regarding the trade off between equity and efficiency, as the latter is assumed to be a national phenomenon.

⁷ This could still be rationalized as there may be additional recruitment of staff at the local level to shoulder the additional responsibility of combating income inequality but this arrangement may not necessarily result into efficiency in supplying state level products.

REFERENCES

- Bahl, R., Holland, D. and J. Linn (1990). "Mobilizing Resources in Developing Countries", in R. Bird and O. Oldman (eds) *Taxation in Developing Countries*, Johns Hopkins University Press.
- Bird, R. and O. Oldman (eds) (1990). *Taxation in Developing Countries*, Johns Hopkins University Press.
- Brown, L. and W. E. Oates (1987). "Assistance to the Poor in a Federal System", *Journal of Public Economics* 32, pp. 307-330.
- Cornes, R. and T. C. Sandler (1996). *The Theory of Externalities, Public Goods and Club Goods*, Cambridge: Cambridge University Press.
- Gruber, J. (2005). *Public Finance and Public Policy*, New York: Worth Publishers.
- Ladd, H. and F. C. Doolittle (1992). "Which Level of Government Should Assist the Poor", *National Tax Journal* 35, pp. 323-36.
- Lane, T. D. (1993). "Market Discipline", *IMF Staff Papers* 40, pp. 53-88.
- Lewis, J. (1988). *Strengthening the Poor: What Have We Learned?*, Washington D.C.: Overseas Development Council.
- Musgrave, R. A. (1959). *The Theory of Public Finance: A Study in Public Economy*, New York: Mc Graw Hill.
- Nordhaus, W. (1975). "The Political Business Cycle", *Review of Economic Studies* 42, pp. 169-90.

- O'Dwyer, C. and D. Ziblatt (2006). "Does Decentralization Make Government More Efficient and Effective?", *Commonwealth & Comparative Politics* 44, pp. 326-43.
- Oates, W. E. (1972), *Fiscal Federalism*, New York: Harcourt, Brace, Jovanovich.
- _____ (1985), "Searching for Leviathan: An Empirical Study", *American Economic Review* 75, pp. 748-57.
- _____ (1994), "The Potential and Perils of Fiscal Decentralization", *Discussion Paper*, Department of Economics, University of Maryland, Maryland, USA.
- Paul, S. (1988). "Governments and Grassroots Organizations: From Co-existence to Collaboration", in R. Lewis (ed.), *Strengthening the Poor: What Have We Learned?* Washington D.C.: Overseas Development Council.
- Pauley, M. (1973). "Income Redistribution as Local Public Good", *Journal of Public Economics* 2, pp. 35-58.
- Prud'homme, R., (1994), "On the Dangers of Decentralization", *Policy Research Working Paper* 1252, Washington D.C.: World Bank.
- Ramessur-Seenarain, T. S. (2006). "Who Better Targets the Poor?" Annual Conference for Development and Change, Sao Paulo, Brazil, November 17-20. www.policyinnovations.org
- Rogoff, K. and A. Sibert (1988), "Equilibrium Business Cycles", *Review of Economic Studies* 55, pp. 1-16.
- Sobhee, S. K. (2003). "An Error Correction Model of the Median Voter's Demand for Mauritius", *Economic Issues* 8, pp. 47-61.
- Tanzi, V. (1995). "Fiscal Federalism and Decentralization: A Review of Some Efficiency and Macroeconomic Aspects", Annual World Bank Conference on Development Economics, pp. 295-322.
- Tiebout, C. (1956). "A Pure Theory of Local Expenditures", *Journal of Political Economy* 5, pp. 416-24.
- Tordoff, W. (1988). "Local Administration in Botswana", *Public Administration and Development* 8, pp. 183-202.

Contact Information:

Sanjeev K Sobhee
Department of Economics and Statistics
University of Mauritius
Reduit
Mauritius
e-mail: sksobhee@uom.ac.mu
Tel: ++230-4541041 and Fax: ++230-4656184

The Effects of Campaign Expenditures on Congressional Elections

Mark Gius

Quinnipiac University

Abstract: There has been a plethora of research conducted on the effects of political campaign expenditures on congressional election outcomes. Results of the prior research are mixed; some studies suggest that incumbent campaign spending has little to no impact on election outcomes, while other studies claim that incumbent spending is at least as effective, if not more so, than challenger spending. Almost all prior studies find that challenger spending has a rather significant effect on votes obtained by the challenger. The present study differs from most prior research by including as an explanatory variable the percentage of registered voters who have the same party affiliation as the candidate. Results of the present study suggest that, for winners, both own and rival spending have negative effects on their percentage of votes obtained, while, for losers, both own and rival spending have positive effects on percentage of votes obtained. For both winners and losers, percentage of own party affiliation has a positive effect on percentage of votes obtained. Finally, in a regression that includes both winners and losers, it was found that incumbents possess a 15 point advantage over their challengers; this may explain why incumbents are re-elected over 90 percent of the time.

JEL Classification: D72

Key words: Congressional elections; campaign spending

I. INTRODUCTION AND LITERATURE REVIEW

In the 2006 Congressional elections, the total amount spent by the winning candidates for the U.S. House of Representatives was \$549,493,170; that amount does not include what the losers spent. The average amount spent per winner was \$1,319,403. What makes these numbers even more interesting is the fact that, in 2006, 94 percent of House incumbents were re-elected. In fact, many winning incumbents spent millions to keep their seats in the House, even though their challengers spent nothing. For example, Roy Blunt, Republican from Missouri, spent \$3,301,391 to keep a seat in the House that he had for years; his opponent, Jack Truman, spent nothing; in that election, Representative Blunt won with 67 percent of the popular vote. There were many other winners who spent lavish amounts on campaigns even though their opponents spent very little or nothing, and, in many cases, the outcome of the election was never in doubt.

Research on this topic has been undertaken for decades and scores of articles have been written on the effect of campaign contributions on elections. An excellent review of the literature is Stratman (2005).

One of the first papers published in this area was Shepard (1977). Looking at only the 1972 Congressional elections in California, the author estimated two regressions for the election outcome, one for the Democratic candidate and one for the Republican candidate. The explanatory variables used included spending by both candidates, the primary election outcome, and the percentage of voters who were registered Democrats. This is the only study that the author is aware of that uses party affiliation as an independent variable; most other studies used proxy variables to capture party affiliations in the congressional district. Shepard's results indicated that increased spending by a Democratic candidate has a positive effect on the Democratic candidate but no effect on the Republican candidate, while Republican spending has a negative effect on the Democratic candidate but only a small, positive effect on the Republican candidate. Given the uniqueness of Shepard's empirical technique, his results are not directly comparable to the results of other studies. In addition, his results are somewhat suspect given that his sample size was rather small ($n=33$) and only one state (California) and one election (1972) were examined.

Jacobson (1978, 1990) published two articles on the impact of campaign spending on congressional elections. His first study used two-stage least squares (2SLS) to estimate the effects of both incumbent and challenger spending on the election outcome. Jacobson estimated an equation for only the challenger's share of the vote. He assumed that both challenger and incumbent spending were endogenous; hence, two first stage equations were estimated, one for each candidate's expenditures. Looking at the 1972 and 1974 Congressional elections, his results indicated that an extra \$10,000 spent by the challenger resulted in an increase in percentage of vote obtained anywhere from 1.63 percent to 1.79 percent. An extra \$10,000 spent by the incumbent, however, reduced the challenger's share of vote anywhere from 0.22 percent to 0.5 percent.

In his 1990 paper, Jacobson used polling data in order to determine if voter preferences changed during the campaign and attempted to ascertain the determinants of these changes in preferences. The results of this paper validate the results of the 1978 paper; the more a challenger spends, the more net votes he gets, while the more an incumbent spends, the more net votes he loses. In addition, challengers who spent

little or nothing lose support during the campaign. Overall, though, the author found that incumbent spending does not produce a win, while challenger spending may produce a victory.

In Krasno and Greene (1988), the authors incorporated into their model of election outcomes a variable that attempted to capture the effect of the quality of a challenger on the outcome. Using a challenger quality index with a range from 0 to 8, where 8 indicates a very high political quality, and using both OLS and 2SLS, Krasno and Green found that campaign expenditures have significant and positive effects on the shares of vote obtained by both incumbents and challengers. This result is in contrast to prior studies which found that incumbent spending has little to no effect on their share of vote obtained. In addition, they found that challenger spending actually has less of an effect on the outcome than other studies have indicated. The authors contend that they obtained these results primarily because they controlled for the challenger's political quality, something no other study in this area attempted to do.

In his 1991 paper, Abramowitz attempted to determine the factors that reduced the level of competition in Congressional races. In order to determine these factors, he first estimated a model of election outcome in which the dependent variable was the incumbent's margin of victory or defeat. The explanatory variables used include campaign spending by both the incumbent and the challenger. His results were similar to those of prior studies; incumbent spending had no statistically-significant effect on the incumbent's margin of victory, while the challenger's spending had a significant and negative impact on the incumbent's margin. One interesting variable used an explanatory variable was the margin of victory or defeat for the presidential candidate of the incumbent's party in the district in the previous presidential election. This variable was used as a proxy for the strength of the incumbent's party in the district. It had a significant and positive effect on the incumbent's vote margin.

Using an approach similar to Krasno and Green (1988), Levitt (1994) attempted to determine if accounting for the quality of a challenger would alter the typical finding that incumbent spending has little to no effect on the election outcome while challenger spending may affect the race. Levitt looked only at elections where the two candidates ran against each other multiple times. Using data from 1972 through 1990, Levitt found

that campaign spending overall has a minimal effect on election outcomes; the impact of challenger spending is also much smaller than previously reported.

Gerber (1998) examined Senate election data for the years 1974-1992. Given that Senate elections are statewide, several of the variables that Gerber used would not be available for estimating House election results. Gerber claimed that spending and election outcomes are endogenous. Hence, in order to estimate Senate election outcomes, the author used 2SLS with the following instrumental variables: wealth of challenger, state voting-age population, and lagged spending. Estimating a model containing both incumbent and challenger spending, along with several control variables, the author's results suggested that challenger and incumbent spending are relatively equal in the magnitude of their effects on the share of votes obtained. Interestingly, the author did not include a dummy variable indicating incumbency, but he does include a "partisanship" variable, which measures the relative importance of the dominant political party in the state; a similar variable at the congressional district level is employed in the present study.

Erikson and Palfrey (1998) also used a simultaneous equation model in order to estimate the effects of campaign spending on votes obtained. If campaign spending and votes obtained are determined simultaneously, Erikson and Palfrey postulated that the covariance between these two variables must be the sum of the bilateral effects of spending on votes and vice versa. Hence, if one subtracts the vote-on-spending effect from the spending-on-vote effect, then one may obtain an accurate measure of the effects of campaign spending on votes obtained. Using a model that included both incumbent and challenger spending, their results indicated that incumbent spending has a greater effect on votes obtained than challenger spending. In addition, the study found that campaign spending has cumulative effects; hence, the more a candidate spends now will not only affect votes obtained in the current election, but the outcome in future elections as well.

Looking at Irish election data, Benoit and Marsh (2008) attempted to more fully capture the benefits of incumbency by including as an explanatory variable "public office value spending." This type of spending consists of free publicity, postal privileges, and other administrative perks that are part of being an elected official; these types of

resources are naturally available to the incumbent and may assist them in their re-election efforts. The challenger does not have access to these resources, although, it bears noting, that the challenger may already be an elected official and hence may use resources at his disposal in his current position in order to seek higher office; this possibility is not considered by Benoit and Marsh. This study used 2SLS in order to capture any possible endogeneity of campaign spending. Finally, the authors used three measures of election outcomes: vote share, total votes obtained, and a dichotomous variable indicating win or loss.

Results from Benoit and Marsh (2008) indicated that while spending increases a candidate's vote, spending by an incumbent is slightly less effective in obtaining such votes. These results hold for all three measures of the dependent variable and for both the OLS and 2SLS models, although the author's note that the effects of incumbent spending are more pronounced in the 2SLS model. Rival spending is not included in their model. These results corroborate the results of other studies in this area. One criticism of this study, though, is that by including public spending by an incumbent, the authors may be double-counting the benefits of incumbency since the authors also included a dummy variable for incumbency. In addition, since non-incumbents would have no public spending, the degree of correlation between the public spending variable and the incumbency variable must be rather high.

Finally, Gius (2008) used a model similar to that employed in the present study; however, only data for the 2006 Congressional election was used in the earlier study. Looking at data for 315 Congressional districts and using as explanatory variables own and rival campaign spending and a party affiliation variable, Gius found that rival spending has a greater effect on the percentage of votes obtained than incumbent spending. In fact, one million dollars spent by an incumbent increases his vote share by only three percentage points, while rival spending decreases vote share by six percentage points; hence incumbents must spend much more than rivals to overcome this deficiency. However, incumbents also start with a very large advantage; just being an incumbent results in a 24 point advantage. Finally, although party affiliation is important, it is not of a large magnitude. For example, the Republican candidate gains only one point if the percentage of Republican voters in the district is ten points greater

than the percentage of Democrat voters. Hence, according to Gius, the election comes down to incumbency and spending, with party affiliation possibly making the difference in close elections.

The present study differs from these prior studies in several important ways. First, two different measures of election outcomes will be used; one will be percentage of vote obtained and the other will be a dichotomous variable that equals one if the candidate won and zero otherwise; only one other study, Benoit and Marsh (2008), used a dichotomous variable as a dependent variable. Second, the percentage of the voters in the district registered in the candidate's own party will be used as a measure of the party's political strength and will also act as a proxy for the general political beliefs of the electorate in the district; this variable was also used in Gius (2008). Third, the model used in the present study will be based on a theoretical model of advertising expenditures; most prior studies did not use advertising theory as a foundation for their empirical models. Finally, a very large data set, spanning several elections, will be used in the present study; most prior studies focused on only one election or one state.

II. EMPIRICAL TECHNIQUE

Winning an election is akin to being the product ultimately selected for consumption by a consumer. One can imagine a particular product with only two brands to select from; the consumer must base their decision on a variety of factors, including advertising by the two brands and personal preferences. It is assumed that own-brand advertising would increase demand for the brand in question, while rival advertising would reduce demand. However, there may be other forces at work. For example, own-brand advertising may not only increase demand for the brand in question but may also increase demand for the rival brand, if the advertising convinces a consumer to demand more of the product in general. Hence, there are two forces at work: an own-effect and a market effect. The own-effect of advertising increases demand for a particular brand at the expense of the rival brand. The market effect of advertising increases demand for all brands of a particular product. Therefore, there are several possible results regarding the effects of advertising on demand:

1. If the own-effect is stronger than the market effect, then own-brand advertising may increase demand for the own-brand and reduce demand for the rival.
2. If the market effect is greater than the own effect, then own-brand advertising may increase the demand for both brands. Hence, in such a situation, advertising may be counter-productive.
3. Another possible situation may be that the effects differ for the two brands. For example, if brand X advertising has a stronger market effect, while brand Y advertising has a stronger own-effect, then we may see a situation where advertising by both brands results in an increase in the demand for brand Y and little or no increase, or possibly even a decrease, in the demand for brand X. If this particular case applies, we may see brand X advertise much more than brand Y in order to counter the net effect and retain or increase demand.

Applying the above analysis to the market for candidates, and if one assumes that the greatest share of campaign expenditures goes towards advertising, or, at the very least, all candidates spend approximately the same share of their expenditures on advertising, then it may be possible to explain the results of prior research on campaign expenditures. In a two-candidate world, if one assumes that, for the winner's spending, the market effect dominates the own-effect, while for the loser, the own-effect is stronger, then it is possible that, in regressing percentage of votes obtained against campaign expenditures, we would observe own-spending to have little to no effect on the winner's vote, but own spending would have a positive effect on the loser's vote.

The assumption that the advertising market effect is dominant for the incumbent may be reasonable in that the incumbent may be particularly well-liked or especially despised; hence, their advertising may entice more people to vote, even those who vote for the other candidate. It is highly unlikely that, given their potentially limited public exposure, a challenger would stir up such strong emotions such that their very candidacy would entice more people to show up at the polls; thus, the loser's advertising may very well have a minimal market effect. Hence, the own effect of challenger advertising would probably be dominant.

Gius (1996) presented a similar analysis for distilled spirits. However, the market for political candidates is a better venue for testing the above theory since only in the political market do we see both the winners and the losers. In any other type of market, one typically only has data on the brand that consumers selected, not on the brands they didn't pick. Hence, the political market is an excellent case for testing the own and market effects theory of advertising.

In order to test the above theory, a function of votes obtained must be developed. Using prior research as a guide, it is assumed that the percentage of vote obtained depends upon the following factors:

$$PV = f(CE, RE, PS, I, \mathbf{X}, \mathbf{Z}) \quad (1)$$

where PV is the percentage of vote obtained, CE is the candidate's campaign expenditures, RE is the rival's or challenger's campaign expenditures, PS is the candidate's party strength in the district, I denotes the incumbency status of the candidate, \mathbf{X} is a vector of district-level demographic and political variables that may affect the election of the candidate, and \mathbf{Z} is a vector of personal characteristics of the candidate that may affect the election.

The vector \mathbf{X} in this model may be redundant since the percentage of voters registered in the same party as the candidate (PS) is an excellent proxy for the demographic attributes of the district; hence, no district-level variables will be used. Regarding the personal characteristics of the candidate, the candidate's incumbency status (I) should be sufficient to capture most of these effects.

In order to capture any potential coattail effects or election turnout issues regarding presidential election years, two dummy variables are used: the first dummy equals one if the election is a presidential election year and zero otherwise, and the second equals one if the candidate is the same party as the President of the United States, and zero otherwise.

In addition to the variables presented in equation (1), two other variables, own-spending squared and rival spending squared, are included in order to capture any potential nonlinearity effects of campaign spending on the probability of winning and the percentage of votes obtained.

Four regressions will be estimated in the present study. Three will have as their dependent variables the percentage of votes obtained; all of these regressions will be estimated using OLS. The fourth regression will be a probit regression, where the dependent variable equals one if the candidate won and zero otherwise.

For the three OLS regressions, one will be for the winning candidate, another will be for the losing candidate, and the third will include all candidates. It is expected that the first two regressions will provide evidence regarding the validity of the own and market effects theory of campaign spending discussed previously. In the winning candidate regression, only incumbents will be included, and for the losing candidate regression, only non-incumbents will be included. This is done in order to avoid any issues regarding the market effects or own effects of advertising. Very few observations should be lost in either regression since over 90 percent of incumbents are re-elected.

Most prior studies used OLS for estimating the effects of various explanatory variables on the percentage of vote obtained. Several studies did, however use 2SLS, and one (Benoit and Marsh, 2008) used a probit regression. Jacobson (1978) used 2SLS in order to capture any possible reciprocal causality. Jacobson hypothesized that not only may spending affect an election, but that the election outcome, or potential election outcome, may also affect spending. For example, lobbyists and other concerned citizens may contribute more money to those candidates who stand a better chance of winning. Therefore, potential winners will receive more contributions and hence may spend more than potential losers. Although this may be true, a potential win does always become an actual win. In those cases, there is no reciprocal causality; hence, using 2SLS in those cases would be inappropriate.

Benoit and Marsh (2008) also used 2SLS in order to correct for this possible endogeneity. They note in their paper that spending increases when margins decline. The argument here is that if a candidate is in a tight race, then spending will increase. Marsh and Benoit use as a proxy of the closeness of a race the vote won by the party in the previous election. This proxy variable is of rather dubious value in capturing the closeness of a current race. The only variable that may capture such closeness would be public opinion polls leading up the election. Even then, as noted in the present study,

many politicians spend rather large sums of money on races even though the outcome was never in doubt.

Finally, in his 1990 paper, Jacobson admitted that the simultaneity bias in using OLS to estimate the effects of campaign expenditures on election outcomes is probably very small, and hence OLS is adequate for use in estimating an election model. Hence, given the lack of a reasonable proxy for closeness of race and given that spending occurs before any vote is cast and is therefore not determined simultaneously with the casting of votes, it is reasonable to assume that spending is exogenous, and thus OLS is used in the present study.

Regarding expected results, it is assumed that, in the incumbent regression, own-advertising (expenditures) will have no effect on vote obtained, while rival expenditures will have a negative effect. For the challenger regression, both own-advertising and rival advertising will have positive effects. These results are to be expected if one assumes that for winners, the market effect outweighs the own-effect and for losers, the own-effect is dominant.

III. DATA AND RESULTS

Data on campaign contributions and electoral outcomes were obtained from the website www.OpenSecrets.org. Data on party affiliations by congressional district were obtained from various state-level Departments of State, the agencies typically responsible for elections and collecting election data. Not all state-level Departments of State, however, collect party affiliation data at the congressional district level. Data from twelve states were used. Those states are as follows: Arizona, California, Colorado, Connecticut, Florida, Iowa, Kentucky, Maryland, New Mexico, Nevada, North Carolina, and Oregon. Data were obtained for the following elections: 1998, 2000, 2002, 2004, and 2006. Only Democrat and Republican candidates are examined; independent and third-party candidates are excluded. In addition, only races where both major party candidates are running are included, and races where there is no incumbent are also included. The total number of observations was 522. All campaign contributions were

deflated using the consumer price index, base year 1982-1984. All variables are defined on Table 1.

TABLE 1: VARIABLE DEFINITIONS

Variable	Definition
SPEND	Amount spent by candidate (dollars)
SP2	SPEND squared
RSPEND	Amount spent by rival (dollars)
RP2	RSPEND squared
PARTY	Percentage of district's electorate registered in same party as candidate
PELECT	= 1 if Presidential election that year = 0 otherwise
PRES	=1 if candidate is same party as President = 0 otherwise
INCUMBENT	=1 if candidate is incumbent = 0 otherwise

As noted in the previous section, four regressions were estimated. The first regression is a binary probit, with the dependent variable taking the value of 1 if the candidate won and 0 otherwise. Probit regression results are presented on Table 2.

TABLE 2: PROBIT REGRESSION RESULTS

Variable	Coefficient	Test Statistic
Constant	-6.98	-4.428
SPEND	0.0000065	5.015
SP2	-0.0000000000017	-3.108
RSPEND	-0.00000537	-4.808
RP2	0.0000000000012	2.909
PARTY	0.139	4.238
PELECT	0.228	0.643
PRES	0.579	1.509
INCUM	1.75	4.073
N= 522		
Log-likelihood function = -32.20536		

As expected, own advertising is positive and significant, while rival advertising is negative and significant. Hence, looking at all candidates, own-advertising increases the probability of being elected, while rival advertising reduces the probability of being elected. These results are consistent with results of prior research. The squared own

advertising variable is negative and the squared rival advertising variable is positive, suggesting that advertising has non-linear effects on the probability of being elected.

As expected, PARTY and INCUMBENT are significant and positive. These results suggest that the greater the share of the district's electorate who are members of the candidate's own political party, the greater the probability that the candidate will be elected, and, of course, being an incumbent greatly increases a candidate's probability of being elected.

On Table 3, the same regression is estimated as in Table 2 except with a different dependent variable; the dependent variable is percentage of votes obtained. OLS was used to estimate this regression. Results are similar to the probit regression results.

Table 3: OLS Regression Results, All Candidates

Variable	Coefficient	Test Statistic
Constant	13.6	9.272
SPEND	0.0000059	5.505
SP2	-0.00000000000023	-5.254
RSPEND	-0.00000513	-4.779
RP2	0.00000000000019	4.244
PARTY	0.706	19.859
PELECT	0.258	0.454
PRES	-0.273	-0.479
INCUM	15.833	17.346
N= 522 R ² = 0.86		

The losing candidate regression is presented on Table 4. For this regression, the incumbent variable is omitted. As can be noted from the results, both own spending and rival spending increase the percentage of votes obtained by the loser. This result validates the theory presented in the previous section. For challengers (losers), the own-effect of advertising outweighs the market effect, while for incumbents, the market effect outweighs the own effect. Hence, the losing candidate's rival's advertising actually increases the loser's vote share. This theory not only explains the results of the present study, but also explains the results of most prior research as well. PARTY is, once again, significant and positive.

Table 4: OLS Regression Results, Losing Candidates

Variable	Coefficient	Test Statistic
Constant	14.52	8.729
SPEND	0.0000094	6.365
SP2	-0.000000000000039	-6.395
RSPEND	0.0000069	2.94
RP2	-0.00000000000028	-2.781
PARTY	0.48	11.431
PELECT	-0.911	-1.483
PRES	-0.225	-0.365
N= 256 R ² = 0.57		

The winning candidate regression is presented on Table 5. Once again, the incumbent variable is omitted. The results for this regression suggest that both own advertising and rival advertising have negative effects on the winner's vote share. As noted above, if the winner's market effect outweighs the own effect, while the loser's own effect outweighs the market effect, then we should see rival advertising having a negative effect on the winner's vote share. Regarding the negative effect of own spending on vote share, this result may suggest that advertising by the winning candidate may have a perverse own or market effect in that advertising actually reduces the winner's vote share.

Table 5: OLS Regression Results, Winning Candidates

Variable	Coefficient	Test Statistic
Constant	50.65	19.47
SPEND	-0.0000077	-2.81
SP2	0.000000000000024	1.625
RSPEND	-0.0000085	-4.608
RP2	0.00000000000035	4.605
PARTY	0.398	8.525
PELECT	0.665	1.024
PRES	-1.055	-1.619
N= 233 R ² = 0.53		

Clearly, the negative effect of rival advertising on the winner's vote share is consistent with theory as are all of the results presented for the losing candidate. Hence, the results seen here might suggest that an incumbent's best political strategy may be to lay low and not advertise very much at all. Their incumbency status

clearly helps their electoral chances, and, once again, PARTY is significant and positive. Hence, if a Republican incumbent is up for re-election in a predominantly Republican district, then the best strategy for the candidate may be to keep campaign spending to a minimum.

How well do these results explain reality? The answer lies mainly in the magnitude of the effects. As noted in earlier research and verified by the results of the present study, spending by either candidate has a minimal effect on the vote share obtained. The results of the combined regression (both incumbents and challengers) suggest that \$1,000,000 spent by the candidate increases a candidate's vote share by 5.9 percentage points, while \$1,000,000 of rival advertising cuts the percentage of votes obtained by 5.13 percentage points. Hence, if both the incumbent and the challenger spend \$1,000,000, the incumbent's vote share increases by only 0.77 percentage points. Given that average winner spent about \$1.3 million, the overall impact on their share of votes obtained is minimal.

If spending doesn't matter very much, then why do incumbents spend so much even when they are almost always re-elected? One possible reason may be that they realize that advertising by their opponents definitely helps their opponents' chances of getting elected. The incumbent may thus be trying to counter their rival's advertising, in the mistaken belief that their advertising won't help the challenger, when in actuality it does. Hence, when it comes to campaign spending, it is better to actually be the challenger than the incumbent.

Being an incumbent, however, gives the candidate a big advantage, a 15.8 percentage point advantage to be precise. This definitely helps the incumbent's chances for re-election. In addition, for every 1 percentage point increase in the candidate's own party affiliation in the district, the candidate's vote share increases by 0.7 percentage points. Given that the average of PARTY is 39 percent, this translates into an average vote share per candidate of 27.3 percent. Adding in the incumbent advantage, one obtains 43.1 percent. Hence, an incumbent with a strong district party affiliation is almost unbeatable, no matter what amount is spent. In fact, if an incumbent's own party constitutes at least 50 percent of the registered voters in the district, then, according to the results of the present study, that incumbent is statistically

unbeatable. That may explain why 94 percent of incumbents in congressional races were re-elected in 2006.

Finally, it is important to note that, in all regressions, PRES and PELECT are insignificant, suggesting that the coattail effect of a President is rather minimal.

IV. CONCLUSION

The purpose of the present study was to estimate the effects of campaign contributions on congressional elections. Developing a model that examines both the market effects and the own effects of political advertising, the present study differs from prior research by including as an explanatory variable the percentage of registered voters who have the same party affiliation as the candidate; the inclusion of this variable is important since it appears that the variables party affiliation and incumbency may explain why over 90% of incumbents are reelected.

Two different types of regressions were estimated; the first was a binary probit regression, and the second used as a dependent variable the percentage of votes obtained. Results of the present study indicated that for winners, both own and rival spending have negative effects on their percentage of votes obtained, while, for losers, both own and rival spending have positive effects on percentage of votes obtained. Finally, for both winners and losers, percentage of own party affiliation has a positive effect on percentage of votes obtained.

In looking at the combined regression, the results suggested that an incumbent has a 15 point lead over any potential challenger and that for every one percentage point increase in party affiliation, a candidate's vote share increases by 0.7. Hence, an incumbent running in a district where at least 50 percent of the electorate belongs to the same party as the incumbent is virtually unbeatable.

REFERENCES

Abramowitz, Alan (1991). "Incumbency, Campaign Spending, and the Decline of Competition in US House Elections", *The Journal of Politics* 53, pp. 34-56.

- Benoit, Kenneth and Michael Marsh (2008). "The Campaign Value of Incumbency: A New Solution to the Puzzle of Less Effective Incumbent Spending", *American Journal of Political Science* 52, pp. 874-90.
- Erikson, Robert and Thomas Palfrey (1998). "Campaign Spending and Incumbency: An Alternative Simultaneous Equations Approach", *The Journal of Politics* 60, pp. 355-73.
- Gerber, Alan (1998). "Estimating the Effect of Campaign Spending on Senate Election Outcomes Using Instrumental Variables", *American Political Science Review* 92, pp. 401-11.
- Gius, Mark (1996). "Using Panel Data to Determine the Effect of Advertising on Brand-Level Liquor Sales", *Journal of Studies on Alcohol* 57, pp. 73-77.
- _____ (2008). "An Analysis of the 2006 Congressional Elections: Does Campaign Spending Matter?", *Applied Economics Letters* 15.
- Green, Donald and Jonathan Krasno (1988). "Salvation for the Spendthrift Incumbent: Re-estimating the Effects of Campaign Spending in House Elections", *American Journal of Political Science* 32, pp. 884-907.
- Jacobson, Gary (1978). "The Effects of Campaign Spending in Congressional Elections", *The American Political Science Review* 72, pp. 469-91.
- _____ (1990). "The Effects of Campaign Spending in House Elections: New Evidence for Old Arguments", *American Journal of Political Science* 34, pp. 334-62.
- Levitt, Steven (1994). "Using Repeat Challengers to Estimate the Effect of Campaign Spending on Election Outcomes in the US House", *The Journal of Political Economy* 102, pp. 777-98.
- Shepard, Lawrence (1977). "Does Campaign Spending Really Matter?", *The Public Opinion Quarterly* 41, pp. 196-205.
- Stratman, Thomas (2005). "Some Talk: Money in Politics. A (Partial) Review of the Literature", *Public Choice* 124, pp. 135-56.

Contact Information:

Mark P. Gius
Professor of Economics
Department of Economics
Quinnipiac University
275 Mount Carmel Avenue
Hamden, CT 06518
Tel: 1-230-582-8576
E-Mail: Mark.Gius@quinnipiac.edu

Monopsony Theory

**Walter Block
& William Barnett II***

**Loyola University New Orleans
Loyola University New Orleans**

Abstract: This paper attempts to show that the neoclassical analysis of monopsony is erroneous. We deal with this issue under two sub-headings: those compatible with mainstream economics, and those that are not. In the first category are: paucity, wrong target, temporariness, limited window, complexity, information and timing (length of run). In the second category are those stemming from an alternative economic perspective, Austrianism: objective expenses vs. subjective costs, reliance on illegitimate interpersonal comparisons of utility, failure of trade to occur, coerced income transfers, difficulties with perfect competition and geometrical/mathematical considerations.

JEL Classification Codes: L4

Key words: Monopsony, interpersonal comparisons of utility, market failure, minimum wage law, unemployment, anti-trust, regulation of business.

I. INTRODUCTION

In the debate over the effects of the minimum wage law, the strong consensus (Block and Walker, 1988; Frey, et. al. 1984; van Dalen and Klamer, 1997) of economists is that such legislation leads to unemployment for unskilled workers. There is some disagreement as to the strength of this effect, but only a small minority of the members of the dismal science deny this finding outright (Card and Krueger, 1994).

But virtually all of the latter would attribute this unexpected conclusion to the phenomenon of monopsony.¹ That is, the “market failure” of “insufficient competition” among buyers results in sub-optimally low quantities and prices in the market. Nor does this apply only to those who support minimum wages. Indeed, it is the consensus of virtually the entire economics profession that there is indeed such a thing as

* The authors of the present paper wish to thank the referees of this Review for very helpful remarks about an earlier version of this paper. The usual caveats of course apply.

[Editor’s Note: Due to their unusual number and size, all figures that are discussed in this paper are to be found in the end of it as an exception to our usual policy to include them *in situ*.]

monopsony, and that when and where it exists, a minimum wage law will not only raise wages, but also increase the employment opportunities of those affected by it.² Presumably, the reason so few economists favor the minimum wage law is *not* because they think it necessarily leads to greater unemployment for the unskilled, but due to the fact that they judge monopsony inapplicable in most real world situations. Were they to judge that the organization of most industry was on monopsonistic lines, it is the view of the present authors that the economics profession as a whole would *favor* minimum wage legislation as a means of raising wages and the number of job slots open to the unskilled.

The present paper is devoted to a critical analysis of monopsony, particularly as it impacts arguments in support of the minimum wage law made on the basis of it. In section II we depict the model as offered by its neoclassical proponents; section III is devoted to criticisms of this model which emanate from within the mainstream economic tradition; section IV, the core of our paper, is devoted to criticisms of monopsony in general, and, in particular, support for minimum wages that can be made upon monopsonistic grounds. We consider an objection to our thesis in section V and conclude in section VI.

II. MONOPSONY

We start off with the traditional monopsony diagram (see Figure 1 at end of article with all other figures),³ where the downward sloping curve depicts the marginal revenue productivity (MRP)⁴ of a group of workers of the same skill, one of the upward sloping curves represents the average factor cost (AFC); i.e., the supply of labor (S),⁵ and the other represents the marginal factor “cost”⁶ of hiring an additional worker (MFC) on the assumption of non-price discrimination; i.e., all employees are paid the same wage. We indicate three important points on this diagram, M, C and A. M is the profit maximizing wage-quantity of labor combination for the monopsonist of W_M and Q_M . C illustrates the profit maximizing wage-quantity of labor combination when the labor market is perfectly competitive; Q_C workers would be hired, and paid a wage of W_C . A is important for two reasons. First, it denotes the point at which MFC and MRP intersect, which locates the

quantity of labor to be hired by the monopsonist, and second, to be discussed below, it identifies the maximum level at which the minimum wage can be set and still unambiguously benefit the workers; any higher than this and the higher wage rate comes at the price of reduced employment.

As is shown in Figure 1, M lies below and to the left of C. This means that the monopsonist will employ fewer laborers, and pay them less, than would an employer if the labor market were perfectly competitive. The reason for this, the explanation of the divergence between MFC and S, is that when the firm wishes to take on an additional employee, it must pay him somewhat more than the prevailing wage rate, since it faces an upward sloping supply curve. But if the monopsonist must pay the last or marginal worker a bit more, and it pays its entire staff the same amount of money, then in addition to paying the last one somewhat more than everyone else, it must raise the wages of all other workers (the inframarginal units). If it does so, then its marginal factor cost cannot be found upon the S curve it faces; instead, these are read off the MFC curve, which is defined in precisely this manner. (In contrast, the perfectly competitive demander of labor faces a flat supply curve; it hires so small a percentage of the labor force it acts as if when it takes on one more person, it can do so without having to pay a premium above the prevailing wage).

To illustrate all possible cases of the effects of a minimum wage law, we use seven (7) figures, with the minimum wage levels set: below M (Figure 2), at M (Figure 3), between M and C (Figure 4), at C (Figure 5), between C and A (Figure 6), at A (Figure 7), and above A (Figure 8). We do so to show that, according to neoclassical economic thought, the minimum wage law can only “help” the workers when the wage is set between M and A, inclusive.

How does the introduction of the minimum wage in Figure 2 change our graph? That (the dotted) portion of the supply curve lying below the minimum wage is supplanted by the (solid) flat, minimum-wage curve; the remainder of the supply curve is unchanged.⁷ That is, the new supply curve consists of the (solid) minimum wage line from W_B to B, at which point Q_B is the quantity of labor employed; thence it consists of the (solid) portion of the original supply curve. As to the MFC curve, that (the dotted) portion of the marginal factor cost curve lying between the vertical axis and D is supplanted by the

(dotted) flat, minimum-wage curve from W_B to B , at which point Q_B is the quantity of labor employed; the remainder of the MFC curve is unchanged. There is a discontinuity in the MFC curve when the quantity of labor employed is Q_B .

As it happens, a minimum wage of W_B will have no effect on the behavior of the monopsonist (we abstract from the likelihood that this law, pegged at *any* level for the first time, will serve notice on market participants that a new legal regime is now in effect, and that a minimum wage established at any one level can be changed to another). The law requires that he pay at least W_B . But he is already compensating his workers to the tune of $W_M (>W_B)$ on the basis of profit maximizing considerations. So the law at this level is, in effect, null and void, mandating something that would exist in any case.

A similar conclusion can be drawn with a minimum wage set at W_M (Figure 3). This is precisely the rate of pay that would otherwise obtain in the absence of the law, so, it, too, is of no effect. Matters “heat up” with a minimum wage of W_D (Figure 4). Here, for the first time, the “salutary” effects of this legislation can be demonstrated. In the absence of the law, Q_M workers are paid W_M . With the enactment in effect, additional employees are taken on ($Q_E - Q_M$) and they *all* receive a pay packet of $W_E (>W_M)$ that constitutes an actual raise from what the employed workers (Q_M) were paid before the advent of this new legal situation. Here, for the first time we have the supposed best of all possible worlds: the employees’ pay scales increase, and there are more of them employed.

Things are even “better” when the wage minimum is elevated to W_C . Here, there are even more workers on the books, and with still higher hourly wages. In fact, with wages at this level, the monopsonist is forced to act as if he were broken up into enough firms to constitute perfectly competitive conditions. That is, the non wage-discriminating monopsonist pays W_C and hires Q_C workers (Figure 5), exactly the same wage rate and employment that would occur if the industry were perfectly competitive.

When the minimum wage is raised again, this time to W_G , the MFC intersects the MRP curve at point G , implying the employment of Q_G workers at the minimum wage, W_G (Figure 6). When comparing points C and G , note that a move from the former to the latter implies a pay scale increase, but a decrease in employment. Does this mean

that the gain to the workers is not unambiguous? No. For the proper comparison is not between C and G, but rather between M and G. That is, without the minimum wage, the workers would be stuck at M; with it, they move up and to the right to G. This constitutes a gain *both* in employment and in wages, so, again, it cannot be denied, given the neoclassical tools we are now utilizing, that their lot is improved.

When the wage minimum is again elevated, this time to W_A , the MFC intersects the MRP at A, and another presumably unambiguous improvement in employee welfare is registered. In this case, although there is no gain in employment, the level of employment remaining the same (Q_M) as it was at M, wages are higher, W_A rather than W_M ; in fact, they are as high as they can be without lowering the number of jobs (see Figure 7). Nor can it be objected that the workers as a group are worse off in terms of employment slots open, compared to point C, for as we have already seen, the proper comparison is of A with M, not with C.

It is only when we arrive at a minimum wage of W_N that the classical result expected by virtually all economists finally obtains, even in the face of monopsony: wages increase, but at the price of decreased employment (Figure 8), so there is now a “cost” to this legislative enactment, just as occurs under the assumption of perfect competition.

To summarize this section, as long as the minimum wage is greater than W_M and less than or equal to W_A , the workers will gain: their salaries will increase, and the number of job opportunities for this sector of the labor force will increase, or, at worst, not decrease. If the minimum wage is below W_M it will have no effect, and if above W_A it will reduce employment.

III. NEOCLASSICAL CRITICISMS OF THE MONOPSONY ARGUMENT

At first blush, this section constitutes a veritable contradiction in terms. Monopsony is a creature of the neoclassicals; how, then, can these economists turn around and reject their own invention? To be sure, just because the critiques to be offered below are compatible with the neoclassical world view does not mean they have been made by mainstream economists. Mostly, they have not been articulated from this quarter, so blinded by their training are such practitioners with the idea of monopsony power.

However, the views now to be explored are at least compatible with mainstream philosophy.

1. Paucity

There are very few actual examples of monopsony in the real world. Were there any monopsonistic industries, or, to the extent that there are, this implies for the neoclassical economist that the workers are underpaid. If so, all the employees have to do is to bestir themselves into finding a better job. One wonders how the workers find themselves in this predicament in the first place. Presumably, they were attracted to migrate to the one industry town in the first place with the specter of higher wages and better working conditions than previously available to them. If so, from whence arises the “exploitation?”

Nor is it even necessary that the worker have the knowledge he is underpaid compared to opportunities available elsewhere. Equally efficacious would be this information in the hands of employers competing with the presumed monopsonist. It is not for nothing that agribusiness firms have long traveled hundreds of miles away, to a foreign country (e.g., Mexico) to entice workers away from those environs with wage offers far more attractive than those available in the home labor market. Ignorant do-gooders object to the supposed “exploitation” of these Mexican workers on the ground that the wages paid are low compared to American standards, and the working conditions (including homes furnished by the employer to the employee) are inferior on this same basis. They reckon in the absence of the concept of “voting with your feet”: the fact that the Mexicans willingly travel hundreds of miles from their homes eloquently attests to the fact that the offers in this country are vastly superior to those available to them at home.

Today, most workers live in cities. Given the multitude of employers therein, that a monopsony in the market for unskilled workers employees would exist is most unrealistic. When workers discover that the firm they work for pays wages below those obtainable elsewhere in the relevant geographical market, a worker could simply change employers. This would put quite a spoke in the wheel of anyone trying to pay employees less than their marginal revenue product. Moreover, the highly developed

network of roads combined with relatively inexpensive means of transportation such as used cars and motorcycles means that workers residing outside of cities are not bound to employers in a narrow geographical area.

2. Wrong target

Actual real world examples of monopsony apply to the upper income end of the labor market, not the bottom, minimum-wage one. For example, in the years during which IBM was, for all intents and purposes, the only seller of computers, nerds, geeks, electronic experts and other techno wizards effectively had no other firm they could turn to for employment. Perhaps, the best examples of markets with “monopsonistic” elements are those in professional sports. Owners have used various means to try to hold down player compensation; e.g., the now-nonexistent reserve clause in baseball, the salary caps in football and basketball, and the drafts in all three, with varying degrees of success during different periods.

The employees supposedly “exploited” by the evil monopsonists in these cases were highly skilled, commanding wages far in excess of any actual proposal for a minimum wage. Therefore, the law could scarcely help them. The highest actually proposed minimum wage known to the present authors is a “living wage” of \$12.00 per hour. (See “How much should colleges pay their janitors?”, *Chronicle of Higher Education*, August 3, 2001, pp. A27-28). This is of course distinct from cases of *reductio ad absurdum* offered by numerous economists to undermine defenses of the minimum wage law. Typically, a level of \$1,000,000 per hour will be offered with the “justification” that if such legislation can truly raise real wages, why be pikers and settle for a few dollars an hour? With earnings of one million dollars per hour, we could all become rich.

Nor is this a mere accident, such that were we to look around more carefully, we would find numerous, or, indeed, any, cases of low qualified workers facing the depredations of a monopsonist. On the contrary, there is a *reason* why only highly productive laborers would be confronted with this plight. The unskilled are the way they are because they lack training; e.g., abilities to help specific employers, such as engineers, doctors, basketball players, cellists, etc. Rather, they have what is called general skills, those that can be used in a whole host of situations: ability to sweep a

floor, clean up, carry a bundle, push a cart, take dishes off a table, etc. The point is, while there may be only one firm in an entire country with a need for the services of a narrowly trained engineer, there are any number of companies in the market for workers with such non-specific services. Therefore, a firm, to the extent it is a monopsonist, is not in competition with other firms for lower-skilled, general workers; rather, qua monopsonist, it is in the market(s) for those with specific, high-level skills. In other words, for professional sports teams with supposed monopsonistic powers, these could be expected to relate to the expert player, who could only work for another firm in this industry which might be located thousands of miles away rather than to the person who cleans out the locker room or stadium, who could easily do the same janitorial tasks for many other businesses in town.

3. A temporary phenomenon

The aforementioned cases of “monopsony”⁸ in professional sports and computers, it should be noted, arose from “monopolies” in the markets for the goods produced by these firms. Consequently, both problems were eventually “solved” simultaneously by the entrance of competitors. In professional sports leagues, this generally took the form of increased competition among the extant teams as well as that from the addition of new teams. Moreover, in some cases competition for talent came from new leagues that were formed, both domestic and foreign. In the computer industry, of course, there has been the rise of Microsoft and literally thousands of other competitors for IBM. Some might say that the rise of competition in these cases took far too long, and that an all-wise governmental, anti-monopsony agency would have been much more efficient than the market. But this assumes that bureaucrats have greater wisdom and incentive than entrepreneurs. However, it is difficult to reconcile such a claim with the fact that capitalists, not civil servants, created these enterprises in the first place. For an antidote to this fallacy, contemplate the fact that the Berlin Wall fell due to the inefficiencies of socialism, as did the economies of the U.S.S.R. and many others in Eastern Europe.

Further, there is good and sufficient reason for the dissipation of monopsonies. It is the same as in the case of monopolies: this privileged status necessarily increases profits. But enhanced returns serve as a target for potential competitors. This is why, as

long as monopolies or by extension, monopsonies, are not accorded legal protection from competition by compliant and paid-off politicians, their demise is an almost certainty.

There are other phenomena that spell the eventual death knell of the monopsonist. Assuming for the moment they actually existed in the 19th century and before, this was an epoch when transportation and information costs were very much higher than at present. But these costs constitute the context in which a monopsony can survive and prosper. When they are radically reduced, it is easier for competing firms, and the “exploited” employees of the monopsonist, to find and deal with each other, to their mutual benefit and to the consternation of the monopsonist. It is hard to discern why when two consenting adults engage in a “capitalist act” (Nozick, 1974, p. 163) together, particularly an ongoing one, that one of them should be considered “exploited”. Rather, this is a vestigial excrescence from our now disappearing and non-lamented inheritance from Marxism.

4. Limited window

As we have seen, there is a necessarily limited range over which the minimum wage could be raised without reducing employment below the pre-minimum-wage level. Decisions about such matters however, must emanate from the political process, replete with favoritism, bribery, corruption, one-hand-washing-the-other motivation, etc. It would be only by accident that a politically determined minimum wage would fall within the win-win range. Bill, your way, we use this phrase, “minimum wage” four (4) times in a very short paragraph; mine, only three (3) times.

Moreover, demands and marginal productivities, and therefore MRPs, and supplies, and therefore MFCs, are all continually *shifting*. Thus, it is not a stationary target that the political process must hit, but rather a constantly moving one. Nor is there any automatic feedback mechanism which rewards those political jurisdictions which hit the bull’s eye, and continually change the level at which the wage minimum is pegged so as to be congruent with changing economic conditions. Nor is there any such system that penalizes those that fail in this regard. It would be amazing if any accuracy in target “shooting” eventuated from such a morass. And, that assumes that the purposes of the

politicians involved in setting minimum wages is to hit the target range, for which assumption there is no basis, save the words (pun intended) of the politicians, and their handmaidens, themselves.

5. Multiple wage minima required

There is a practical difficulty with fashioning any single minimum-wage level to all industries where it might do some good for unskilled workers. Even supposing our previous obstacles to be ruled out of court for argument's sake, that is, monopsonies do exist in significant numbers, do not dissipate over time, do apply to the poor, and can be successfully targeted by bureaucrats and politicians, this limited window would still remain, and vary across different areas of the economy. The point is, for a single minimum wage to suffice, there would have to exist a range which would be a subset of the specific range of each and every individual firm/industry, else a minimum wage that suffices for one industry will be either too high or too low for another or others.

The point is, even in the absence of continually changing conditions, *one* minimum wage level almost certainly will not suffice. Rather, there must be a series of them, each tailored to a separate monopsony. This exacerbates the task of the politicians and bureaucrats: either there is an overlap of the relevant individual wage ranges – one by its very nature smaller than the relevant ranges of the individual firms/industries – such that a single minimum wage will do, in which case they must be able to recognize it, which means they must be able to discern the range for every firm/industry; or, there is no overlap in which case, again, they must be able to perceive the relevant range for each firm/industry; or, or there are partial overlaps – overlaps that include only a fraction of the firms/industries, in which case the politicians and bureaucrats must be able to discern the various potential overlaps and decide the optimal choice of them. But in order to identify this they must, again, be able to do so for the relevant range for every firm/industry. Then, if they are not to have firm/industry specific minimum wages, they must choose the optimal set of overlaps. Of course, any choices made in the latter case are bound to result in injustices and be open to large scale corruption.

Moreover, unless we have a single, universal, minimum wage, the ethos of the minimum wage law, which has been that *one* peg can suffice for an entire economy, is

severely undercut. If the ostensible goal of the law is to raise wages, then surely one level will suffice, the one up to which the law is supposedly attempting to pull workers. The real motivation for this pernicious legislation is very much otherwise. This law is never urged by the poor themselves, its presumed beneficiaries. Rather, it is championed by self-appointed spokesmen of the poor, including, and especially, the minions of organized labor, whose skilled membership is always in competition with cheaper substitutes, in an attempt to price what they see as their opposition out of the market (See on this Henderson, 2002, pp. 111-5).

6. Lack of information

As discussed above, there is a virtually unsolvable information problem. The wage area $W_A - W_M$ looks like a reasonable target for central planners of the economy, but it is no such thing. In our diagrams, it stems, merely, from lines on a piece of paper. In actuality, it would be very difficult to hit this bull's eye, even were it not constantly on the move, which it is.

It bespeaks a certain level of intellectual conceit (Hayek, 1989) to imagine oneself capable of tailoring a minimum wage level capable of addressing the challenge of monopsony as articulated above. Anyone with the hubris to volunteer for this job would presumably expose himself, ipso facto, as incapable of carrying it out.⁹

Such enactments may not create any benefits for the working poor, but they are almost guaranteed to be a full employment law for economists who will conduct the studies necessary to make these determinations, and have a financial interest in continuing to do so.

7. Length of run

The manner in which we have depicted the various curves makes it look as if the distance along the vertical axis, $W_A - W_M$ is a large one. That is, there is a reasonably big target at which the legislative authorities can aim their wage minimum. This might be true in the short run; however, in the medium and long runs, these curves tend to become flatter. That is, because both the buyers and sellers find it easier/more efficient to make adjustments the longer the period of time that elapses after a wage change, both the supply of and demand for labor¹⁰ tend to become more elastic as time passes.

Let us begin by considering a portrayal of a situation of perfect competition¹¹ in the market for labor. In this case, illustrated in Figure 9, the MRP curve is the demand curve for labor, and, initially, with no minimum wage law yet in existence, 1,000 workers work 2,000,000 hours per year at a wage of \$5 per hour, and thus receive, in total, wages of \$10,000,000 annually (this assumes 40 hours per week for fifty weeks a year). A minimum wage of \$6 per hour is now introduced, in which case employment decreases by 200,000 hours per year to 1,800,000 hours, and the total wages paid are \$10,800,000. Moreover, an additional 200 workers would be willing to supply 2,000 hours per year at that wage rate, but cannot find employers willing to hire them. Nevertheless, as noted above, the wages paid to all employees actually rises from \$10,000,000 to \$10,800,000.

Assuming that none of the 200 would-be workers are able to land employment, and are ignored by the original 1,000, two options arise. First, the 1,000 could split the remaining work among themselves, evenly, each working 1,800 hours per year for a total of \$10,800. In that case each of the 1,000 original workers is better off, earning \$800 per year more for 200 less hours. Second, 100 of the original workers become unemployed; the remaining 900 workers work 2,000 hours per year for a total of \$12,000. In that case, the workers remaining employed are better off earning \$2,000 more per year for the same amount of work. Of course, the 100 who lost their jobs would find that their incomes had decreased from \$10,00 to zero dollars (\$0.00) and would have an extra 2,000 hours of forced leisure each year in which to enjoy the benefits of the minimum wage.

But this is by no means the end to the story. The employers are faced with a relatively more expensive factor of production, unskilled labor. As shown in Figure 10, they will be led by profit maximizing considerations to substitute relatively cheaper inputs, e.g., skilled labor, capital, etc., for this now more relatively more expensive one. As among resources, the “cheaper” is that for which the marginal expense of producing an additional unit of the relevant good through the use of more of that resource is least; i.e., the resource x_i , for which $(\partial p_i x_i / \partial x_i) / (\partial Q / \partial x_i) < (\partial p_j x_j / \partial x_j) / (\partial Q / \partial x_j)$, $j = 1, \dots, m$, $i \neq j$. We start out under free market (FM) conditions with isoquant IQ_1 and budget line IC_{FM} , which implies that quantity A of unskilled labor (UL), and B of all other resources (AOR)

of production are hired at point C. Then, we introduce the minimum wage law with budget line IC_{MW} ; the new tangency position is located at point E, which implies the usage of a reduced amount of unskilled labor D, and an increased quantity of all other factors of production, F.

All of this takes time, of course. In the immediate short run, one second after the introduction of the minimum wage at \$6 per hour, employment would not fall from 2,000,000 to 1,800,000 (Figure 9). Rather it would “stay put” at 2,000,000 hours. That is, the wage bill would go not from \$10,000,000 to \$10,800,000, but, rather, to \$12,000,000. However, with the passage of time, employers would, on the one hand, reduce production and, therefore, the demand for all resources because of decreased sales consequent to higher prices resulting from the increased labor expenses, while on the other hand they would be able to substitute further and further away from the now relatively more expensive factor of production, unskilled labor. Therefore, fewer and fewer of these people will be hired, as illustrated in Figure 11, with the pinwheel of pivoted demand curves. Where will it end? It is entirely conceivable, although not highly likely, that no workers at all (zero) of those intended to be “protected” by the minimum wage law will remain employed. D_1 is the market-run, demand curve, D_2 the short-run, demand curve (this is the demand curve depicted in Figure 9), D_3 the intermediate-run demand curve, D_4 the long-run demand curve, D_5 , the very long run demand curve, and D_6 is a flat line, which implies that each and every last worker has been priced out of this market; they have all lost their jobs.

For example, at a low minimum wage, the nation’s elevators were virtually all operated manually; when this level was raised, it is not likely that on that very day a single elevator operator was fired for that reason. But over the next few years, more and more of them¹² were replaced by competing factors of production (capital, and highly skilled laborers who manufactured and repaired these conveyances) until virtually no elevator operators were left. That is to say, while the market-run demand curve for the services of manual elevator operators was vertical, and the short-, intermediate-, and long-run demand curves resembled the D_2 , D_3 , and D_4 curves in Figure 11, in the very long run it was virtually perfectly flat. The reason is that to the extent that a firm is able to earn extraordinary returns because it faces a less than perfectly elastic labor supply,

these very returns will induce, over the long run, if not sooner, competition for the labor, provided of course, that it is not a true monopsonist; i.e., a buyer whose competition, potential and/or actual, is restricted by governmental coercion.

IV. AUSTRIAN CRITICISMS OF MONOPSONY

Monopsony is dead from the neck up. It is not just a matter that it exists, but is difficult to address with a minimum wage law; rather, the entire concept is intellectually incoherent. There is no such thing as monopsony, any more than monopoly exists, apart, of course, from exclusive grants of government privilege. Statist monopoly, for example, applies to the post office, taxi-cabs and other legally protected, guild-like enterprises. Statist monopsony, by analogy, describes a situation where competition among buyers is restricted by law. For example, there are marketing boards in Canada (Grubel and Schwindt, 1977; Borcharding, 1981) to whom farmers are forced to sell their produce; it is illegal for them to sell to anyone else. The point is, while government monopsony is a reasonable concept, which describes a reprehensible economic system, market monopsony is like a square circle: a veritable contradiction in terms.¹³

1. Costs and Benefits vs. Revenues and Expenses

Although neoclassical economists pay allegiance to benefits and costs as subjective, it is lip service only, as they invariably treat costs as objective (Barnett and Saliba, unpubl.). Thus, even though most say the costs and benefits of an action are subjective; i.e., the benefit of an action is the utility thereof, and the cost of an action is the most highly valued alternative foregone in acting, and admit that values are subjective, they invariably express benefits and costs in terms of money, i.e., objectively.¹⁴

This leads to great confusion. One way this confusion is manifested is in neoclassical utility maximization. There, costs enter in the form of the budget constraint that is measured in monetary terms, though the units are virtually never included in the actual mathematical equations, and benefits enter through the utility function, though

the units are never included in the mathematical equations. Thus, the costs are measured in monetary terms, as if they objective, and the benefits are not measured in any units, rendering incommensurable the costs and benefits that are to be compared in order to maximize utility. Moreover, if the units were included, dimensional analysis would lead to the conclusion that either utility is cardinally measurable in terms of some standard unit; e.g., utils, or the utility maximizing equation would be dimensionally inconsistent, a sure sign of error. Furthermore, the confusion is manifested in neoclassical profit maximization. There, costs enter in the form of the “cost” function and benefits enter in the form of revenues, both of which are measured in monetary terms. It is true that in their work on agency theory neoclassicals recognize the difference between costs and benefits, on the one hand, and expenses and revenues, on the other, as perceived by the person making the decision for the firm. However, because of their use of mathematical models they cannot eschew the need to quantify. And their models obfuscate the point that utility is inherently subjective and ordinal, not objective and cardinal (On these points, see Barnett, 2004; and Barnett and Block, 2001.) To avoid this pitfall, herein, we refer to such objective measures as “expenses”.

Moreover, there is an additional objective element in neoclassical economics that shows up whenever sellers have to lower the per unit price to sell additional units (i.e., demand curves slope downward) or buyers have to pay a higher per unit price to buy additional units (i.e., supply curves slope upward), which, of course, they always do in the real world, in contradistinction to the imaginary world of perfect competition.

This additional element manifests itself in the profit maximizing equation in the expression for marginal revenue, $P + Q \partial P / \partial Q$, as the term $Q \cdot \partial P / \partial Q$; this term, a negative quantity, is treated as if, in some sense, it is not a real expense to the business. That is, $|Q \cdot \partial P / \partial Q|$ is treated as if it is ‘merely’ a transfer from the buyers of the good, Q , to the seller. That is why, when considering profit maximization in terms of the market for goods, on one side of the profit maximizing equation $|Q \cdot \partial P / \partial Q|$ is subtracted from the price of the good to yield the marginal revenue, instead of being added, on the side, to the traditional marginal “cost”, to yield the subjective marginal *expense*.

The additional element manifests itself, also, in the profit maximizing equation in the expression for marginal factor “cost”, $p_i + x_i \cdot \partial p_i / x_i$, as the term $x_i \cdot \partial p_i / x_i$; this term, a positive quantity, is treated as if, in some sense, it is not a real expense to the business. That is, $|x_i \cdot \partial p_i / x_i|$ is treated as if it is “merely” a transfer from the sellers of the resource, x_i , to the buyer. That is why, when considering profit maximization in terms of the market for resources, on one side of the profit maximizing equation $|x_i \cdot \partial p_i / x_i|$ is added to the price to yield the marginal factor “cost”, instead of being subtracted, on the other side, from the traditional marginal revenue product to yield the subjective marginal revenue product.

That is, neither is considered to be a “real” expense of doing business; they both result from less than perfectly competitive markets. As neither is a real expense of doing business, and each is merely a transfer, then they should be eliminated or, if that is not possible, reduced to the lowest level possible. And, there should be no negative consequences regarding the allocation of resources. In fact, their elimination/reduction would have the beneficial effect of correcting the misallocations of resources that result from supposedly “less than perfect” markets.

That is, cost is subjective not only in the sense of subjective value vs objective value, but also in the sense of being unique (i.e., subjective) to the actor, himself. However, neoclassicals think choices should be viewed through the lenses of some independent, objective, impartial, neutral, unbiased, disinterested 3rd party. From that perspective $|\partial P / \partial Q|$ and $|x_i \cdot \partial p_i / x_i|$ are *merely* redistributions of wealth from buyers of goods and sellers of resources, to “greedy” businesses trying to maximize profits. These factors, therefore, should not be taken into consideration in decisions affecting the allocations of resources. Moreover, to the extent that they are, according to the neoclassicals, they result in “market failures”, warranting governmental intervention, provided only that the subjective benefits of such interventions outweigh the subjective costs thereof. Of course, the costs and benefits are measured as the estimated net present discounted monetary values thereof, such estimates being made by the objective third parties, themselves.

To put this in neoclassical; i.e., mathematical, terms, let the profit function be: $V = PQ - \sum p_i x_i$, ($i = 1, \dots, n$), where P and Q are the price and quantity, respectively, of a

good, and p_i and x_i are the prices and quantities, respectively, of the i resources used to produce the good; and, the production function is $Q = Q(x_i)$.

Then the profit maximizing conditions are:

1. $(P + Q \cdot \partial P / \partial Q) \cdot \partial Q / \partial x_i = p_i + x_i \cdot \partial p_i / x_i, \forall i, i = 1, \dots, n$, or
2. $P + Q \cdot \partial P / \partial Q = (p_i + x_i \cdot \partial p_i / x_i) / (\partial Q / \partial x_i), \forall i, i = 1, \dots, n$,

where: $P + Q \cdot \partial P / \partial Q$ is the marginal revenue from a unit of Q – MR; $\partial Q / \partial x_i$ is the marginal product of a unit of x_i – MP_i , $(P + Q \cdot \partial P / \partial Q) \cdot \partial Q / \partial x_i$ is the marginal revenue product from a unit of x_i – MRP_i ; $p_i + x_i \cdot \partial p_i / x_i$ is the marginal factor cost of a unit of x_i – MFC_i ; and $(p_i + x_i \cdot \partial p_i / x_i) / (\partial Q / \partial x_i)$ is the marginal cost of a unit of Q produced using additional x_i – MC_i . Note that if for the firm $\partial P / \partial Q = 0$, as neoclassical theory assumes it does in a “perfectly competitive” (PC) market for goods, then $MR = P$, in which case $MRP_i = P \cdot \partial Q / \partial x_i$ and is referred to as the value of the marginal product: VMP_i . Similarly, if for the firm $\partial p_i / \partial x_i = 0$, as neoclassical theory assumes it does in a PC market for resources, then $MFE = p_i$, in which case $MC_i = p_i / (\partial Q / \partial x_i)$. For the neoclassical, then, there are four (4) cases: PC in both the goods and resources markets; imperfect competition (IPC) in the goods market and PC in the resources markets; PC in the goods markets and IPC in the resources markets; and, IPC in both the goods and resources markets (See Table 1). Notice that in addition to treating costs as objective, the revenues expected to be foregone (FR) as a consequence of having to lower the price of the good in order to sell more of it ($|Q \cdot \partial P / \partial Q|$) and the additional expenses (AE) expected to be incurred as a consequence of having to raise the price of the resource x_i in order to buy more of it ($|x_i \cdot \partial p_i / x_i|$) are not treated as costs to the seller of goods and the buyer of resources, respectively, i.e., the firm. That is, the neoclassicals have discarded the idea of subjective cost. The true opportunity costs are the subjective values the decision maker places on the revenues expected to be foregone as a consequence of having to lower the price of the good in order to sell more of it and on the additional expenses expected to be incurred as a consequence of having to raise the price of the resource x_i in order to buy more of it. This is true both because objective monetary revenues and expenses

have been substituted for subjective benefits and costs, but also because foregone revenues and additional expenses have not been treated as “costs”, i.e., expenses.

Table 1 Neoclassical

Case	Market for the Good	Markets for the Resources	Profit Maximizing Condition(s)	
1	PC	PC	$P \cdot \partial Q / \partial x_i = p_i$ or $P = p_i / (\partial Q / \partial x_i)$	$VMP_i = p_i$ or $P = MC_i$
2	IPC	PC	$(P + Q \cdot \partial P / \partial Q) \cdot \partial Q / \partial x_i = p_i$ i.e., $(P - FR) \cdot \partial Q / \partial x_i = p_i$ or $(P + Q \cdot \partial P / \partial Q) = p_i / (\partial Q / \partial x_i)$ i.e., $(P - FR) = p_i / (\partial Q / \partial x_i)$	$MRP_i = p_i$ or $MR = MC_i$
3	PC	IPC	$P \cdot \partial Q / \partial x_i = p_i + x_i \cdot \partial p_i / x_i$ i.e., $P \cdot \partial Q / \partial x_i = p_i + AE$ or $P = (p_i + x_i \cdot \partial p_i / x_i) \cdot \partial Q / \partial x_i$ i.e., $P = (p_i + AE) \cdot \partial Q / \partial x_i$	$VMP_i = MFC_i$ or $p_i = MFC_i \cdot MP_i = MC_i$
4	IPC	IPC	$(P + Q \cdot \partial P / \partial Q) \cdot \partial Q / \partial x_i = p_i + x_i \cdot \partial p_i / x_i$ $(P - FR) \cdot \partial Q / \partial x_i = p_i + AE$ or $(P + Q \cdot \partial P / \partial Q) = (p_i + x_i \cdot \partial p_i / x_i) / (\partial Q / \partial x_i)$ $(P - FR) = (p_i + AE) \cdot \partial Q / \partial x_i$	$MRP_i = MFC_i$ or $MR = MFC_i \cdot MP_i = MC_i$

As an alternative, consider the profit maximizing conditions. Note that in situations not involving price discrimination: $FR > 0$ as a result of having to lower the price of the good in order to more of it; and, 2) $AE > 0$ as a result of having to raise the price of the resource in order to buy more of it.

More insightful ways to write the profit maximizing conditions than 1. and 2., supra, are:

3. $((P + Q \cdot \partial P / \partial Q) \cdot (\partial Q / \partial x_i)) - x_i \cdot \partial p_i / x_i = p_i, \forall i, i = 1, \dots, n$, or
4. $P \cdot = (p_i + x_i \cdot \partial p_i / x_i) / (\partial Q / \partial x_i) - Q \cdot \partial P / \partial Q, \forall i, i = 1, \dots, n$.

Then, even where objective measures of revenues and expenses are used as proxies for subjective benefits and costs, e.g., regarding optimal decisions for the firm, there is no confusion over, or mistreatment of, FR and AE. And, because the model of perfect competition is problematic, either for goods or for resource markets, there is only one case, as per Table 2.

Table 2 Subjectivist

Case	Market for the Good	Markets for the Resources	Profit Maximizing Condition(s)	
1	PC	PC	non-existent case	
2	IPC	PC	non-existent case	
3	PC	IPC	non-existent case	
4	IPC	IPC	$((P + Q \cdot \partial P / \partial Q) \cdot (\partial Q / \partial x_i)) - x_i \cdot \partial p_i / x_i = p_i$ i.e., $((P - FR) \cdot (\partial Q / \partial x_i)) - AE_i = p_i$ or $P \cdot = (p_i + x_i \cdot \partial p_i / x_i) / (\partial Q / \partial x_i) - Q \cdot \partial P / \partial Q$ i.e., $P \cdot = (p_i + AE) / (\partial Q / \partial x_i) + FR$	$(P - FR) \cdot MP_i - AE = p_i$ $P = (p_i + AE) \cdot MP_i + FR$

2. Interpersonal comparisons of utility

The points ACM (in any of the monopsony diagrams) constitute a dead weight loss triangle, in the view of neoclassical economists. This comes about from the fact that the (supposed) value (equal, in monetary terms, to the area between the demand (MRP) and supply (AFC) curves from Q_C to Q_M , i.e., the triangle ACM) to the hiring firm of the labor in the range Q_C - Q_M is greater than the opportunity costs of using this manpower elsewhere (the area between Q_C and Q_M below the supply curve). That is, the triangle ACM represents the dead weight loss, value that is lost forever, when the monopsonist

prematurely stops its hiring at Q_M , before reaching the perfectly competitive point, Q_C . That is, instead of being used to produce value equal to, in monetary terms, the area between the demand (MRP) curve and the quantity (horizontal) axis from Q_M to Q_C , i.e., the quadrilateral Q_MACQ_C , that amount of labor is used to produce a lesser value equal to, in monetary terms, the area between the supply (AFC) curve and the quantity (horizontal) axis from Q_M to Q_C , i.e., the quadrilateral Q_MMCQ_C . The difference in value between these two areas is the deadweight loss.

The difficulty, here, is that this is an instance of necessarily invalid interpersonal utility comparisons. The analyst who buys into this concept is (not so) implicitly maintaining that the quantity of labor $Q_C - Q_M$ is worth more employed in the present industry than elsewhere. But there is no warrant for any such hypothesis based on actual human action, on the decisions of real life commercial decision-making. Rather, this stems, solely, from drawing a few lines on a piece of paper. Or, factoring into the analysis preferences unrevealed by the market participants, themselves, i.e., preferences existing in the mind of the neoclassical analyst, but not, insofar as anyone can tell from their actions, in the minds of the market participants.

3. Failure of trade to occur

It is one thing to infer from the fact that trade has taken place that both parties have gained, in the *ex ante* sense. This is not only undeniable, but actually serves as an important bedrock of economic analysis. But it is quite another matter to deduce from the fact that trade has *not* occurred, that there is something amiss, akin to a “market failure”.

Yet this is *precisely* what is implied by the neo-classical analysis of monopsony. In this case, in the absence of a minimum wage, as we have seen from Figure 1, trades (purchases and sales of labor services) to the extent of Q_M have taken place. Well and good: all of these employer-employee relationships are mutually beneficial, else wise they would scarcely have occurred. But this is not at all what the mainstream economist complains about. Rather, he finds a “market failure” because the firm did *not* hire the additional labor, $Q_C - Q_M$.

This is highly problematic. From the fact that A and B have *not* engaged in a particular trade with one another it follows that *at least* one of the parties is better off, in the ex ante sense, for *not* having engaged in the exchange. What might explain the fact that in Maine, farmer A owns a potato, and that at the other end of the country, in Oregon (potential) consumer B has a dollar bill in his pocket? For one thing, they might be blissfully unaware of each other, and of the opportunity for trade. For another, the sheer costs of learning of the very existence of one another, and of transporting a single potato all that distance might dissipate, and more than dissipate, any reasonably expected gains from trade in this particular instance. Further, even given that they already know of each other, and can costlessly transport the money and the vegetable, we still cannot conclude that this trade *should* have taken place. For all we know, the potato owner values it more highly than this particular (potential) consumer.

And yet that is what the criticism of the “monopsonist” for not hiring the additional labor, $Q_M - Q_C$, amounts to. However, it is possible that the so-called monopsonist does not hire this additional quantity of workers because he is unaware of their availability; or perhaps because they have better options elsewhere; or even yet because they value their forgone leisure more highly than the onerousness of working for the monopsonist. But whatever the reason, and all of this is necessarily speculative, it cannot be proven that in such cases it would be more efficient were these extra workers placed on the monopsonist’s payroll.

4. Coerced income transfers

In the previous section we had occasion to look at the minimum wage imposed upon the monopsonist from the workers’ point of view, alone. It is now time to consider this matter from the employer’s perspective as well. Abstracting from resource allocation issues, when a wage minimum (W_{MIN}) is imposed upon a monopsonist such that $W_A < W_{MIN} \leq W_M$, there is a clear and unambiguous gain for the workers, either in terms of a wage increase or the number of employees hired, or both. But it can by no means be concluded from this that there is, as a result, a benefit to society as a whole. This is because we have no warrant for concluding that the benefits to the laborers, will outweigh the losses to the monopsonist. This holds true even though, all together, the

number of the former may be far larger than the number of the latter. To make any such determination would require an interpersonal comparison of utility, and this is incompatible with valid economic theory (Barnett, 1989; Barnett and Block, 2001, unpublished; Block, 1980, 1999, 2003; Gordon, 1992; High and Bloch, 1989; Hulsmann, 1999; and, Rothbard, 1993, 1997).

5. Perfect Competition

The argument for minimum wage legislation in behalf of workers in the case of monopsony is predicated upon the model of perfect competition. M , the point at which the monopsonist hires, is compared most unfavorably with C , which indicates the wage and the quantity of labor employed under perfectly competitive conditions. But perfect competition is a ne'er do well concept, manufactured entirely out of the whole cloth. It is an artificially created stick, one especially tailored to turn real rivalrous competition into a whipping boy.

There are not one but two competing definitions for the word "competition". The structural one, "perfect competition", is utilized toward this end by neoclassical economists. Here, competition is defined in terms of the number of participants in an industry and a number of highly unrealistic assumptions such as full and perfect information, homogeneous goods, zero profits, etc. are utilized. In sharp contrast is the vision of rivalrous competition. In this case, a firm or industry is said to be competitive as long as there is free entry – as long as, that is, there are no laws restricting the actual and/or potential competitors.

Consider IBM during the years when it was virtually the only purveyor of computer equipment. For the neoclassicals, this was a monopoly because it met their definition thereof: a single seller of a good, for which there are no good substitutes. In practice, neoclassicals relax the assumption of a single seller because it is virtually impossible to find any market in which this occurs. Moreover, the proviso "for which there are no good substitutes", is necessary, for in reality every good is, to a greater or lesser extent, a substitute for every other good. Yet, on the other hand, this allows any firm to be labeled a monopolist, provided only that some basis for distinction between goods that are potentially substitutes for each other exists (which it always does), such that the goods

can be claimed on that basis not to be “good” substitutes. This latter consideration underlies the neoclassical designation of a variation of “perfect competition” as “monopolistic competition”. That is, in practice monopoly is a very elastic term that can be used by politicians, bureaucrats, and a firm’s competitors, to interfere with true rivalrous (i.e., Austrian style) competition. The same definition, and analysis applies, *mutatis mutandis*, to monopsony. From the perspective of our alternative view, this was a highly competitive firm, not mainly because it was continually innovating new and improved products and services, but due to the fact that it had no monopoly grant of privilege from the government, and other companies were never legally restricted from offering customers competing products on any terms they (the potential competitors) deemed acceptable.

Says Rothbard (1970, pp. 630-1) in this regard: “It is often alleged that the buyers of labor – the employers – have some sort of monopoly and earn a monopoly gain, and that therefore there is room for unions to raise wage rates without injuring other laborers”. However, such a “monopsony” for the purchase of labor would have to encompass all the entrepreneurs in the society. If it did not, then labor, a nonspecific factor, could move into other firms and other industries. And we have seen that one big cartel cannot exist on the market. Therefore, a “monopsony” cannot exist.

The “problem” of “oligopsony” – a “few” buyers of labor – is a pseudo problem. As long as there is no monopsony, competing employers will tend to drive up wage rates until they equal their DMRPs. The *number* of competitors is irrelevant; this depends on the concrete data of the market.... Briefly, the case of “oligopsony” rests on a distinction between the case of “pure” or “perfect” competition, in which there is an allegedly horizontal – infinitely elastic – supply curve of labor, and the supposedly less elastic supply curve of the “imperfect” oligopsony. Actually, since people do not move *en masse* and all at once, the supply curve is never infinitely elastic, and the distinction has no relevance. There is only free competition, and no other dichotomies, such as between pure competition and oligopsony can be established.¹⁵

6. Perfect Competition and Geometrical/Mathematical considerations

Just as there are, essentially, three approaches to dealing with the “evils of monopoly”, so also are there three approaches to dealing with the “evils of monopsony”. These are: governmental ownership of the offending firm; governmental regulation of it; and, a governmentally mandated split-up of the firm into a number of smaller competing enterprises. To this point we have considered labor market monopsony as it relates to arguments in favor of a specific type of regulation, to wit: minimum wage laws. We now turn to divestiture. Standard neoclassical theory divides the set of buyers of resources into four subsets: perfectly competitive, monopsonistically competitive, oligopsonistically competitive, and monopsonistic, buyers. The first category, perfectly competitive buyers, face perfectly elastic supplies of resources, i.e., $MFC = AFC$. We do not consider firms in this category any further. The other three (3) categories all face upward sloping resource supply curves. All such firms can, and do, act to extract whatever pure profits they can from the market, in this case by “exploiting” the workers. Moreover, because firms perfectly competitive in the goods market are necessarily perfectly competitive in resource markets,¹⁶ we need not consider them further. Thus, we are left with cases in which firms are imperfectly competitive in both the goods markets and the resource markets, i.e., $MRP \neq VMP$ and $MFC \neq AFC$. And, as we have seen, *supra*, in neoclassical theory, there is no principled way to distinguish among (competing) firms facing upward sloping resource supply curves or among competing firms facing downward sloping demand curves.

Consider, then, optimal divestiture of a monopsony from a neoclassical perspective. First, even in the case monopolistic competition in the output market and monopsonistic competition in the resource markets where there are no above normal profits, there is still a deadweight loss as each firm in a such an industry produces a quantity such that production occurs at a suboptimal level, i.e., where $MR = MC$, in contradistinction to the level for which $P = MC$. In the resource markets, this translates into operating where $MPR = MFC$, in contradistinction to the level for which $VMP = MFC$, and this holds whether or not $MFC = AFC$, which it is not in the case of monopsony.

It stands to reason, then, that optimum divestiture consists of the creation of a set of firms perfectly competitive both in the goods and in the resource markets. That brings

us to the issue of perfect competition. Not only is it difficult to see, but it is also a matter of mathematical impossibility, for a series of flat curves to be able to be summed up into an upward sloping one. One bit of evidence that *all* employers, no matter how small a fraction of the labor force they account for, experience rising prices, is the oft-heard complaint of rich matrons about the difficulty of getting good domestic help. Now, any one rich lady, no matter how many servants she employs, accounts for a very small percentage of this entire segment of the labor market. She *knows* that when she hires an additional one, her friends will be doing so too, for the reason she is taking on more staff at the present time, whatever it is, applies, too, to her fellow matrons. Similarly, resort hotels know that during their “season”, when they need more waiters and busboys, this applies as well to the establishments down the road from them. The point is, there is no such thing as perfect competition in any case; *all* firms face upward sloping supply curves when they wish to make purchases in the market.

Consider the mathematics of the case of monopsony. Let i index the n firms in a perfectly competitive industry, i.e., $i = 1 \dots n$. Let the supply-of-resources functions faced by the firms be: $x_i = c_i + d_i \cdot p \quad \forall i$, where x_i is the quantity supplied of the relevant resource to the i^{th} firm, p is the market price of the relevant resource, and c_i and d_i ($c_i, d_i > 0$) are supply parameters for the i^{th} firm. Then the individual supply curves are: $p = (c_i/d_i) - (x_i/d_i) \quad \forall i$. The market supply function is: $x = \sum c_i - p \cdot \sum d_i$, where x is the quantity supplied of the relevant good from the firms in the market, taken as a whole, and the market supply curve is: $p = (\sum c_i / \sum d_i) - (x / \sum d_i)$.

Then in order for the individual firms to face perfectly elastic supply, i.e., for the supply curves to be perfectly flat, as required by the model of perfect competition, $1/d_i = 0 \quad \forall i \Rightarrow d_i = \infty$. However, the market supply cannot be perfectly elastic, i.e., the market supply curve must slope upward. That is, $1/\sum d_i \neq 0 \Rightarrow \sum d_i \neq \infty$. But if $d_i = \infty \quad \forall i$, then, a fortiori, $\sum d_i = \infty$. That is, mathematically it is impossible for the market supply curve to slope upward if none of the individual supply curves that are the constituent parts of the market supply curve themselves slope in this direction.

Consider the mathematics of the case of monopoly. Let i index the n firms in a perfectly competitive industry, i.e., $i = 1 \dots n$. Let the demand-for-goods functions faced by the firms be: $Q_i = a_i - b_i \cdot P \quad \forall i$, where Q_i is the quantity demanded of the relevant

good from the i^{th} firm, P is the market price of the relevant good, and a_i and b_i ($a_i, b_i > 0$) are demand parameters for the i^{th} firm. Then the individual demand curves are: $P = (a_i/b_i) - (Q_i/b_i) \forall i$. The market demand function is: $Q = \sum a_i - P \sum b_i$, where Q is the quantity demanded of the relevant good from the firms in the market, taken as a whole, and the market demand curve is: $P = (\sum a_i / \sum b_i) - (Q / \sum b_i)$.

Then in order for the individual firms to face perfectly elastic demand, i.e., for the demand curves to be perfectly flat, as required by the model of perfect competition, $1/b_i = 0 \forall i \Rightarrow b_i = \infty$. However, the market demand cannot be perfectly elastic, i.e., the market demand curve must slope downward. That is, $1/\sum b_i \neq 0 \Rightarrow \sum b_i \neq \infty$. But if $b_i = \infty \forall i$, then, a fortiori, $\sum b_i = \infty$. That is mathematically it is impossible for the market demand curve to slope downward if none of the individual demand curves that are the constituent parts of the market demand curve slope downward.¹⁷

V. AN OBJECTION

Consider this possible objection:

“First, there is an asymmetry between monopsony and monopoly that neither the author nor the neoclassicals typically acknowledge: workers almost always have the option of working for themselves while consumers almost never have the option of providing their own service for the ‘natural’ monopoly. I believe that a brief discussion of this will strengthen the author’s argument (and isn’t it interesting how quickly the exploited become the exploited in that case?) and it, in fact, refutes the argument that ‘Actual real world examples of monopsony apply to the upper end of the labor market, not the bottom, minimum-wage one’. In point of fact, it applies to *neither market*. After all, the minimum wage workers always have alternative options than a single employer (since their work product is much more fungible as the author correctly points out), while high wage workers can (and do) decide to test their prowess as entrepreneurs (a fact that the author omits). This is the great irony that seems to be lost on both the neoclassicals and the Austrians (but it is confusing *why* this is lost on the Austrians because it fits in so well with their methodology: any firm that attempts to impose monopsony conditions will find themselves creating competitors rather than exploiting it because the ‘exploited’ workers will simply leave the labor market and enter the (former) monopsonists market as entrepreneurs!”.

We find this objection¹⁸ to be well-considered, and far enough off the beaten intellectual path to deserve kudos for originality. However, we cannot see our way clear to agreeing with it. Let us list the reasons.

First, we deny there is an asymmetry between monopsony and monopoly. Yes, to be sure, all employees may be thought of, at least theoretically, as having the option of self-employment. Under free enterprise, this alternative would be entirely legal. But entrepreneurship (Kirzner, 1973) is a skill not given to all. Of a certainty, there will always be *some* market participants who are now working for others and on the verge of going out on their own in independent firms (and, also, others, who are contemplating traveling in the opposite direction), but, surely, these people will be in the distinct minority. Most employees would starve if their only alternative was self-employment; they lack the initiative, the funds, the risk bearing ability, in a word, entrepreneurship. It cannot be denied that “workers ... always have the option of working for themselves”, but this is a *legal* opportunity. It is within the law for them to avail themselves of it. But, as a *practical* matter, this choice is open to very few.

A similar situation obtains with regard to consumers. In the city, particularly if raising chickens, rabbits, for food and growing vegetables is limited by law or prohibited outright, there is little likelihood that they can become self sufficient in groceries. In the country, of course, there is a greater possibility for this sort of non-specialization. But even here, there are severe limits. It is not for nothing that the benefits of specialization and division of labor are well known as a staple of our economic understanding.

Nor can we accept the notion of “exploitation” in this regard. Unless the monopoly or monopsony is protected by law,¹⁹ this nomenclature is actually a misnomer. They should be characterized, rather, as single sellers, (IBM, Alcoa Aluminum) or single buyers (several sports leagues, in their infancy). Thus, they are part and parcel of the *market*. As such, “exploitation” simply *cannot* occur. *All* trades in the market are mutually beneficial in the *ex ante* sense; the number of competitors is irrelevant.

We stand by our characterization, moreover, that at least in the economic literature on this subject, “Actual real world examples of monopsony ... (single buyers) ... apply to the upper end of the labor market, not the bottom, minimum-wage one”. This is because of general and specific training. A minimum wage worker can push his proverbial

broom, or do errands, or carry things around, in a plethora of industries. In sharp contrast, the professional basketball player, the airline pilot, the engineer with a very narrow focus, has fewer, not more, career options, in least in those capacities. As an empirical generalization, it is probably true that higher wage workers are more likely to survive as entrepreneurs than their counterparts at the other end of the spectrum. But there are many counter examples: the poor immigrant who works at a menial job, and then begins a pushcart peddling business, on the one hand, and on the other high-paid professional athletes and actors who seem incapable of entrepreneurship or anything like it: they are broke after years of extremely high pay.

Nor can we buy into the notion that “any firm that attempts to impose monopsony conditions will find themselves creating competitors rather than exploiting”. Very much to the contrary, if a firm succeeded in imposing monopsony conditions on people, forcing them to sell only to the monopsonist, this would constitute exploitation *per se*. Given these conditions, any economic actor attempting to become a “competitor” would be visited with physical violence; strictly speaking, that is precisely what a monopsonist *does*: physically *compels* people to sell only to him (at prices he determines, unilaterally).

VI. CONCLUSION

We have articulated the mainstream view of monopsony, and applied it to the case of minimum wages. We first considered the neoclassical arguments. These do not so much oppose the application of monopsony to the minimum wage case as limit its application. We then marshaled more radically critical arguments. These, in contrast, did not limit the application of the monopsonistic model for wage legislation; rather, they directly confronted it. On the basis of them we conclude that the monopsonistic argument in behalf of minimum wages cannot be supported. But more. Not only is it improper to advocate minimum wages on the basis of monopsony, the latter model is invalid in and of itself, and cannot be used for *any* economic purpose – with the possible exception of furnishing yet another a history of economic thought example pertaining to the erroneous nature of perfect competition and mathematical economics.

GLOSSARY

AE – alternative expense
 AFC – average factor cost
 AOR – all other resources
 D - demand
 DMRP – discounted marginal revenue product
 DVMP – discounted value of the marginal product
 FM – free market
 FR – foregone revenue
 IC – isocost curve (budget line)
 IPC – imperfect competition
 IQ – isoquant curve
 L – labor
 MC – marginal cost
 MFC – marginal factor cost
 MFC – marginal factor expense
 MP – marginal product
 MR – marginal revenue
 MRP – marginal revenue product
 P – price of a good
 p – price of a resource
 PC – perfect competition
 Q – quantity of a good
 S – supply
 UL – unskilled labor
 VMP – value of the marginal product
 W – money wage
 W/P – real wage
 x – quantity of a resource

ENDNOTES

¹The term “monopsony” is used ambiguously. Neoclassicals use monopsony (monopoly) to refer to any situation in which there is single buyer (seller) in a market. See, e.g., Colander (1998, G-9), Ekelund and Tollison (1994, G-13), Frank and Bernanke (2001, G-5) and Link and Landon (1975). Austrians, however, distinguish between free markets with a single buyer (seller), referred to as single buyer (seller) markets, and markets in which governmental regulations restrict competition among buyers (sellers), referred to as monopsonistic (monopolistic) markets. For a Post-Keynesian analysis of monopsony, see Eichner, 1976; Milberg, 1992; Robinson, 1953, 1964, 1974; see also Rima, 1991.

² See on this in particular McConnell, Brue and Macpherson (1999, p. 412), but also see Besanko and Braeutigam (2002, p. 504), Brue (1994, p. 352), Due and Clower (1966, p. 264), Fellner (1975, p. 257), Ekelund and Hebert (1975, p. 461; p. 462 n.13), Ferguson (1972, p. 444), Friedman (1990, p. 268), Gwartney and Stroup (1997, p. 691), Hope (1999, p. 378), Leftwich (1973, p. 337), Liebhafsky (1963, p. 262), McCloskey (1982, p. 519), O’Connell (1982, p. 124), Posner (1986, p. 292), Quirk (1982, p. 306), Reynolds (1995, p. 244), Robinson (1964, p. 294), Schotter (1994, p. 587), Stigler (1966, p. 205), Stonier and Hague (1964, p. 265), Varian (1990, p. 432), Vickrey (1964, p. 292).

³As the figures throughout use straight lines for the supply, and marginal factor “cost,” of labor curves, the slope of the marginal factor cost curve should be twice that of the supply curve. Throughout, for expository purposes, the slope of the marginal factor “cost” curve is somewhat greater than twice that of the supply curve; this in no way affects the analysis or conclusions.

⁴Although we shall consider the effects on *employment* of a minimum wage law in labor markets in which the employer(s) face an upward sloping supply curve, we do not consider the effects on *unemployment*, as the concept is problematic in this context. The same applies to markets in which the seller(s) face a downward sloping demand curve; the supply curve is undefined – for each specific market situation only a supply point (necessarily on the perceived demand curve) is defined. Similarly, in markets in which the buyer(s) face an upward sloping supply curve,

the demand curve is undefined – for each specific market situation only a demand point (necessarily on the perceived supply curve) is defined. It is not uncommon for neoclassical authors; e.g., Stigler (245-246), Hope (335-342), to state that the MRP curve is the demand-for-labor curve, though this is correct only if the demander is a “perfect competitor” in that market, and then only in the short run, as an increase (decrease) in the price of a resource causes two (2) adjustments that are not considered in short-run analysis: 1) an increase (decrease) in the price of the relevant good with consequent decreases (increases) in sales and, therefore, a decrease (increase) in production with attendant decreases (increases) in the demands for all resources; and, 2) a substitution of (for) the now relatively less (more) expensive resources for (of) the one the price of which had increased (decreased).

⁵ This paper utilizes a number of abbreviations. For a list of them all, see the Glossary, which appears right before the reference section.

⁶ More correctly, “marginal factor expense.” Expenses are objective and measured in monetary terms, whereas costs are subjective (opportunities foregone, known only to the human actor making the choices) and thus not subject to measurement. Note that the marginal revenue product curve (MRP) also is objective and measured in monetary terms. That is what allows it to be measured against the MFC. Cost, on the other hand, being subjective cannot be compared with objective revenues. Rather, the subjective cost of an action can only be compared with the subjective benefit thereof, and this comparison can only be ordinal (See on this Barnett, 2003).

⁷ In the graphs, the MFC and AFC =S curves are composed of three types of line segments: the dashed and dotted lines indicate what the curves would look like with and without a minimum wage law, respectively, and the solid line segments indicate portions of the curves that are the same regardless of the minimum wage law.

⁸ Praxeologists would characterize the state of affairs depicted above as one of “single sellers,” not “monopoly.” Similarly, for Austrians, there is no such thing in the free market as a monopsonist, only a “single buyer.” In the latter view, the words “monopoly” and “monopsony” are reserved for cases where single seller or buyer status stems from government privilege. For a critique of neoclassical monopoly theory, see Anderson, et. al. (2001), Armentano (1972, 1982, 1991), Armstrong (1982), Block (1977, 1982, 1994), DiLorenzo (1997), Boudreaux and DiLorenzo (1992), High (1984-1985), McChesney (1991), Rothbard (1970), Shugart (1987), Smith (1983).

⁹ For the general case about the failure of central economic planning due to lack of sufficient knowledge, see Boettke, 1991, Conway, 1987, Dorn, 1978, Ebeling, 1993, Foss, 1995, Gordon, 1990, Hayek, 1945, 1997, Hoppe, 1989, 1996, Horwitz, 1996, Keizer, 1987, Klein, 1996, Lewin, 1998, Mises, 1981, 1990, Reisman, 1996, Reynolds, 1998, Rothbard, 1976, 1991, Salerno, 1990, Steele, 1992.

¹⁰ The present paper is mainly concerned with supposed monopsony in labor markets, since that charge is accorded the lion's share of commentary on this subject in the professional economics journal literature. However, the points we make here apply equally well to charges of monopsony in any other field. For example, it is often alleged, in popular not so much professional publications, that since Wal-Mart purchases from suppliers in such heavy quantity, it has captured monopsony or more accurately single buyer status: it is able to take advantage or “exploit” sellers. For defenses of this corporation on this and other related grounds, see Anderson, 2004; Carden, 2006; DeCoster and Edmonds, 2003; DiLorenzo, 2006; Kirklín, 2006; Vance, 2006. For a free enterprise critique of Wal-Mart, see Rockwell, 2005

¹¹ Keen, 2002, has attacked the neoclassicals with regard to the mathematical impossibility of perfect competition

¹² According to Henderson (2002, p. 112) “In the late 1960s, Otis Elevator pushed for an increase in the minimum wage in New York state because it had begun to specialize in converting human-operated elevators to automatic elevators and wanted an increase in demand for its services.”

¹³ The internal contradictions in both monopoly and monopsony theory are revealed by the following three jokes. Here is the first one: there were three prisoners in the Soviet Gulag, trading stories as the antecedents of their incarcerations. The first said, “I came to work late, and they found me guilty of cheating the State out of my labor effort.” The second said, “I came to work early, and they accused me of brown-nosing.” The third one said, “I came to work on time everyday, exactly on time, and they condemned me for owning a western wrist-watch.” Lest we become too complacent, here is the second joke: there were three “white collar” prisoners doing time for monopoly in a U.S. jail, who were also giving their backgrounds to each other. According to the first, “I charged prices higher than those of my competitors, and I was blamed for profiteering and price gouging. Whereupon the second piped up: “I charged lower prices than any of my competitors, and I was castigated for predatory pricing and cutthroat competition.” At this the third jailbird stated: “I charged the same prices as my competitors, the exact same prices, and they imprisoned me for collusion.” The point is, if there are no fourth alternatives, and everyone must, perforce, engage in one of the three, and may, under certain circumstances, be fined or, perhaps, jailed for so doing, then what we have is not legitimate law, but rather an excuse to violate liberties. A similar joke-analysis applies to monopsony: if you pay below wages prevailing elsewhere, you can be accused of running a sweatshop, or exploiting labor; if you pay the same as everyone else, then collusion; and if you pay more, in our hypercritical society, this can expose you to the charge of attempting to ward off unionism. In these cases, also, one may be subjected to penalties for violation of the laws of the land.

¹⁴ It is true that to the extent the monetary expenses under consideration are expected future expenses, they are subjective, but, in such cases it is the amount that is the *expected* amount of the expenses that is subjective, as are all expectations. The nature of the monetary expenses remains objective.

¹⁵ We have so far discussed only the MRP and VMP concepts, not DMRP (discounted marginal revenue product) and DVMP (discounted value of the marginal product); that is, we have abstracted from the time element in this regard. For elucidation of this concept, see Block (1990).

¹⁶ The usual way this is manifested in neoclassical theory is in the profit maximizing condition(s) for a firm perfectly competitive in the goods markets: $MPL = W/P$, where MPL is the marginal product of labor, and W/P , the money wage, W , divided by the price of the good the labor produces and the firm sells, P , is the real wage. (This assumes that there is but a single resource, labor. The analysis is unaffected by relaxing this assumption.) Were the theory to allow for a firm perfectly competitive in the goods market but imperfectly competitive in the resource(s) market(s), the profit maximizing condition would be, instead, $MPL = MFCL/P$, where $MFC = W + L \cdot (dW/dL)$ is the marginal factor cost of labor. However, this formulation is absent from neoclassical writings.

¹⁷ This is merely another example of the abuse of mathematics in neoclassical economics. Moreover, it is interesting to note that, for a perfectly competitive market, neoclassicists do not hesitate to derive, mathematically or graphically, a market supply curve from the individual firms' supply curves, as these all slope upwards because of diminishing marginal productivity. However, when it comes to the market demand curves in such cases, mathematical or graphical derivation is no longer rigorously pursued, rather all is smoke and mirrors as the neoclassicals explain how a series of flat individual firm demand curves can be summed to a downward sloping market demand curve. And this from economists who maintain that they use mathematics, inter alia, to make economics more rigorous and precise, and who disdain economists, such as Austrians, who reject the use of mathematics on methodological grounds.

¹⁸ We owe this objection to an indirect acquaintance of ours who wishes to be anonymous.

¹⁹ E.g., the monopoly post office or bus line, the monopsony marketing board, wherein farmers are not allowed to sell their crops to anyone else. On the latter see Bauer and Yamey, 1968; Grubel and Schwindt, 1977; Borcharding, 1981.

REFERENCES

Anderson, W. L. (2004). "Does Wal-Mart Destroy Communities", May 1.

<http://mises.org/article.aspx?Id=1521>

Anderson, W., Block, W., DiLorenzo, T. J., Mercer, I., Snyman, L. and C. Westley (2001). "The Microsoft Corporation in Collision with Antitrust Law," *The Journal of Social, Political and Economic Studies* 26:1, Winter, pp. 287-302.

Armentano, D. T. (1972). *The Myths of Antitrust*, New Rochelle, NY: Arlington House.

_____ (1982). *Antitrust and Monopoly: Anatomy of a Policy Failure*, New York: Wiley.

_____ (1991). *Antitrust Policy: The Case for Repeal*, Washington, D.C.: The Cato Institute.

Armstrong, D. (1982). *Competition versus Monopoly: Combines Policy in Perspective*, Vancouver: The Fraser Institute.

Barnett II, W. (1989). "Comment on Professor Timberlake's Squared Rule for the Equilibrium Value for the Marginal Utility of Money", *Review of Austrian Economics* 3, pp. 151-7.

_____ (2003). "The Modern Theory of Consumer Behavior: Ordinal or Cardinal", *Quarterly Journal of Austrian Economics* 6:1, Spring, pp. 41-63. http://www.mises.org/journals/qjae/pdf/qjae6_1_3.pdf

_____ (2004). "Dimensions and Economics: Some Problems", *Quarterly Journal of Austrian Economics* 7:1, Spring, pp. 95-104.

- Barnett II, W. and M. T. Saliba (2001). "Neoclassical Theory and the Inconsistent Application of Subjectivism", unpublished.
- Bauer, P. T. and B. S. Yamey (1968). *Markets, Market Control and Marketing Boards*, London: Weidenfeld & Nicolson.
- Besanko, D. and R. R. Braeutigam (2002). *Microeconomics: An Integrated Approach*, New York: Wiley.
- Block, W. (1977). "Austrian Monopoly Theory – A Critique", *The Journal of Libertarian Studies* 1:4, Fall, pp. 271-9.
- _____ (1980). "On Robert Nozick's 'On Austrian Methodology'", *Inquiry* 23:4, Fall, pp. 397-444.
- _____ (1982). *Amending the Combines Investigation Act*, Vancouver: The Fraser Institute.
- _____ (1990). "The Discounted Marginal Value Product – Marginal Value Product Controversy: A Note", *Review of Austrian Economics* IV, pp. 199-207.
- _____ (1994). "Total Repeal of Anti-trust Legislation: A Critique of Bork, Brozen and Posner", *Review of Austrian Economics* 8:1, pp. 35-70.
- _____ (1999). "Austrian Theorizing: Recalling the Foundations", *Quarterly Journal of Austrian Economics* 2:4, Winter, pp. 21-39.
- _____ (2003). "Realism: Austrian vs Neoclassical Economics – Reply to Caplan", *Quarterly Journal of Austrian Economics* 6:3, Fall, pp. 63-76.
http://www.mises.org/journals/qjae/pdf/qjae6_3_4.pdf
- Block, W. and M. A. Walker (1988). "Entropy in the Canadian Economics Profession: Sampling Consensus on the Major Issues", *Canadian Public Policy* XIV:2, June, pp. 137-50.
- Boettke, P. J. (1991). "The Austrian Critique and the Demise of Socialism: The Soviet Case", in R. M. Ebeling (ed.), *Austrian Economics: Perspectives on the Past and Prospects for the Future*, Vol. 17, Richard M. Hillsdale, MI: Hillsdale College Press, pp. 181-232.
- Borcherding, T. (1981). *The Egg Marketing Board*, Vancouver: The Fraser Institute.
- Boudreaux, D. J. and T. J. DiLorenzo (1992). "The Protectionist Roots of Antitrust", *Review of Austrian Economics* 6:2, pp. 81-96.
- Brue, S. L. (1994). *The Evolution of Economic Thought*, 5th ed., Fort Worth, TX: The Dryden Press.
- Card, D. and A. B. Krueger (1994). "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania", *American Economic Review* 84:4, September, pp. 772-93.
- Carden, A. (2006). "Why Wal-Mart Matters", November 16. <http://mises.org/story/2377>.
- Conway, D. (1987). *A Farewell to Marx: An Outline and Appraisal of His Theories*, Middlesex: Penguin Books.
- DeCoster, K. and B. Edmonds (2003). "The case for Wal-Mart", January 27.
<http://mises.org/story/1151>.
- DiLorenzo, T. J. (1997). "The Myth of Natural Monopoly", *Review of Austrian Economics* 9:2, pp. 43-58.
- _____ (2006). "Should Wal-Mart be broken up?", July 19. <http://mises.org/story/2248>.

- Dorn, J. (1978). "Markets True and False in Yugoslavia", *Journal of Libertarian Studies* 2:3, Fall, pp. 243-68.
- Due, J. F. and R. W. Clower. (1966). *Intermediate Economic Analysis: Resource Allocation, Factor Pricing and Welfare*, 5th ed., Homewood, IL: Richard D. Irwin.
- Ebeling, R. M. (1993). "Economic Calculation Under Socialism: Ludwig von Mises and His Predecessors", in J. Herbener (ed.), *The Meaning of Ludwig von Mises*, Norwell, MA: Kluwer Academic Press, pp. 56-101.
- Eichner, A. S. (1976). *The Megacorp and Oligopoly: Micro Foundations of Macro Dynamics*, Cambridge: Cambridge University Press.
- Ekelund Jr., R. B. and R. F. Hebert (1975). *A History of Economic Theory and Method*, New York: McGraw-Hill.
- Ekelund Jr., R. B. and R. D. Tollison (1994). *Economics*, 4th ed., New York: Harper Collins College Publishers.
- Fellner, W. (1960). *Modern Economic Analysis*, New York: McGraw-Hill.
- Ferguson, C. E. (1972). *Microeconomic Theory*, 3rd ed., Homewood, IL: Irwin-Dorsey Ltd.
- Foss, N. J. (1995). "Information and the Market Economy: A Note on a Common Marxist Fallacy", *Review of Austrian Economics* 8:2, pp. 127-36.
- Frank, R. and B. Bernanke (2001). *Principles of Economics*, Boston: McGraw-Hill Irwin.
- Frey, B. S., Pommerehne, W. W., Schneider, F. and G. Gilbert (1984). "Consensus and Dissension Among Economists: An Empirical Inquiry", *American Economic Review* 74:5, December, pp. 986-94.
- Friedman, D. D. (1990). *Price Theory: An Intermediate Text*, 2nd ed., Cincinnati, OH: South-Western Publishing Co.
- Gordon, D. (1990). *Resurrecting Marx: The Analytical Marxists on Freedom, Exploitation, and Justice*, New Brunswick, NJ: Transaction.
- _____ (1992). "Toward a Deconstruction of Utility and Welfare Economics", *Review of Austrian Economics* 6:2, pp. 99-112.
- Grubel, H. G. and R. W. Schwindt (1977). *The Real Cost of the B. C. Milk Board*, Vancouver: The Fraser Institute.
- Gwartney, J. D. and R. L. Stroup (1997). *Economics: Private and Public Choice*, 8th ed., Forth Worth, TX: The Dryden Press.
- Hayek, F. A. (1989). *The Fatal Conceit: The Errors of Socialism*, Chicago, IL: The University of Chicago Press.
- _____ (1945). "The Use of Knowledge in Society", in *Individualism and Economic Order*, London: Routledge.
- _____ (1997). "Socialism and War: Essays, Documents, Reviews", *The Collected works of F. A. Hayek*, Vol. 10, Caldwell edition.

- Henderson, D. R. (2002). *The Joy of Freedom: An Economist's Odyssey*, New York: Prentice-Hall.
- High, J. and H. Bloch (1989). "On the History of Ordinal Utility Theory", *History of Political Economy* 21:2, pp. 351-65.
- High, J. (1984-5). "Bork's Paradox: Static vs Dynamic Efficiency in Antitrust Analysis", *Contemporary Policy Issues* 3, pp. 21-34.
- Hope, S. (1999). *Applied Microeconomics*, New York: Wiley.
- Hoppe, Hans-Hermann (1989). *A Theory of Socialism and Capitalism*, Boston, MA: Kluwer Academic Publishers.
- _____ (1996). "Socialism: A Property or Knowledge Problem?", *Review of Austrian Economics* 9:1, pp. 147-54.
- Horwitz, S. (1996). "Money, Money Prices, and the Socialist Calculation Debates", *Advances in Austrian Economics*, Vol. 3, pp. 59-77.
- Hulsmann, J. G. (1999). "Economic Science and Neoclassicism", *Quarterly Journal of Austrian Economics* 2:4, Winter, pp. 3-20.
- Keen, S. (2002). *Debunking Economics: The Naked Emperor of the Social Sciences*, London: Zed Books.
- Keizer, W. (1987). "Two Forgotten Articles by Ludwig von Mises on the Rationality of Socialist Economic Calculation", *Review of Austrian Economics* 1, pp. 109-22.
- Kirklin, P. (2006). "The Ultimate pro-Wal-Mart Article", June 28. <http://mises.org/story/2219>.
- Kirzner, I. M. (1973). *Competition and Entrepreneurship*, Chicago, IL: University of Chicago Press.
- Klein, P. G. (1996). "Economic Calculation and the Limits of Organization", *Review of Austrian Economics* 9:2, pp 3-28.
- Leftwich, R. H. (1973). *The Price System and Resource Allocation*, 5th ed., Hinsdale, IL: The Dryden Press.
- Liebhafsky, H. H. (1963). *The Nature of Price Theory*, Homewood, IL: the Dorsey Press.
- Lewin, P. (1998). "The Firm, Money and Economic Calculation", *American Journal of Economics and Sociology*, October.
- Link, C. R. and J. H. Landon (1975). "Monopsony and Union Power in the Market for Nurses", *Southern Economic Journal* 41, April, pp. 649-59.
- McChesney, F. (1991). "Antitrust and Regulation: Chicago's Contradictory Views", *Cato Journal* 10.
- McCloskey, D. N. (1982). *The Applied Theory of Price*, New York: Macmillan.
- McConnell, C. R., Brue, S. L. and D. A. Macpherson (1986). *Contemporary Labor Economics*, 5th ed., Boston, MA: McGraw-Hill.
- Milberg, W. (ed.) (1992). *Megacorp and Macrodynamics: Essays in Memory of Alfred Eichner*, Armonk, N.Y.: M. E. Sharpe.
- Mises, Ludwig von (1981). *Socialism*, Indianapolis: LibertyPress/LibertyClassics.
- _____ (1990). "A Hundred Years of Marxian Socialism", in *Money, Method, and the Market Process*, R. M. Ebeling (ed.), Boston, MA: Kluwer Academic Publishers, pp. 215-32.

- Nozick, R. (1974). *Anarchy, State and Utopia*, New York: Basic Books Inc.
- O'Connell, J. F. (1982). *Welfare Economic Theory*, Boston, MA: Auburn House.
- Posner, R. (1986). *Economic Analysis of Law*, 3rd ed., Boston: Little, Brown and Co.
- Quirk, J. P. (1982). *Intermediate Microeconomics*, Chicago, IL: Science Research Associates.
- Reisman, G. (1996). *Capitalism: A Treatise on Economics*, Ottawa, Illinois: Jameson Books, pp.135-9, 267-82.
- Reynolds, M. O. (1998). "The Impossibility of Socialist Economy", *The Quarterly Journal of Austrian Economics* 1:2, Summer, pp. 29-43.
- _____ (1995). *Economics of Labor*, South-Western College Publishing Co.
- Rima, I. H. (ed.) (1991). *The Joan Robinson Legacy*, Armonk, N.Y.: M. E. Sharpe.
- Robinson, J. (1953). "Imperfect Competition Revisited", *Economic Journal*, September, pp. 579–93.
- _____ (1964). *The Economics of Imperfect Competition*, London: Macmillan and Co.
- _____ (1974). "History versus Equilibrium", *Thames Papers in Economics*, London: Thames Polytechnic.
- Rockwell, L. H. (2005). "Wal-Mart Warms to the State", October 28. <http://mises.org/story/1950>.
- Rothbard, M. N. (1970). *Man, Economy and State*, Los Angeles: Nash.
- Rothbard, M. N. (1976). "Ludwig von Mises and Economic Calculation Under Socialism", in *The Economics of Ludwig von Mises*, Kansas City: Sheed and Ward, pp. 67-78.
- _____ (1991). "The End of Socialism and the Calculation Debate Revisited", *Review of Austrian Economics* 5:2, pp. 51-70. See also in "The Logic of Action One", pp. 408-37.
- Salerno, J. T. (1990). "Ludwig von Mises as a Social Rationalist", *Review of Austrian Economics* 4, pp. 26-54.
- Schotter, A. (1994). *Microeconomics: A Modern Approach*, New York: Harper Collins College Publishers.
- Shugart II, W. F. (1987). "Don't Revise the Clayton Act, Scrap It!", *Cato Journal*, 925-6.
- Smith Jr., F. L. (1983). "Why not Abolish Antitrust?", *Regulation* 23, January-February.
- Steele, D. R. (1992). *From Marx to Mises: Post-Capitalist Society and the Challenge of Economic Calculation*, La Salle, IL: Open Court.
- Stigler, G. J. (1966). *The Theory of Price*, 3rd ed., New York: Macmillan.
- Stonier, A. W. and D. C. Hague (1964). *A Textbook of Economic Theory*, New York: Wiley.
- Vance, L. M. (2006). "How Not to Like Wal-Mart", February 27. <http://mises.org/story/2059>.
- Van Dalen, H. P. and A. Klamer (1997). "Blood is Thicker than Water: Economists and the Tinbergen Legacy", in P. A. G. Van Bergeijk, A. Lans Bovenberg, E. C. Van Damme and J. Van Sinderen (eds), *Economic Science and Practice: The Roles of Academic Economists and Policy Makers*, Cheltenham, UK: Edward Elgar, pp. 60-91.
- Varian, H. R. (1990). *Intermediate Microeconomics: A Modern Approach*, 2nd ed., New York: W. W. Norton.
- Vickrey, W. S. (1964). *Microstatics*, New York: Harcourt, Brace & World.

FIGURES

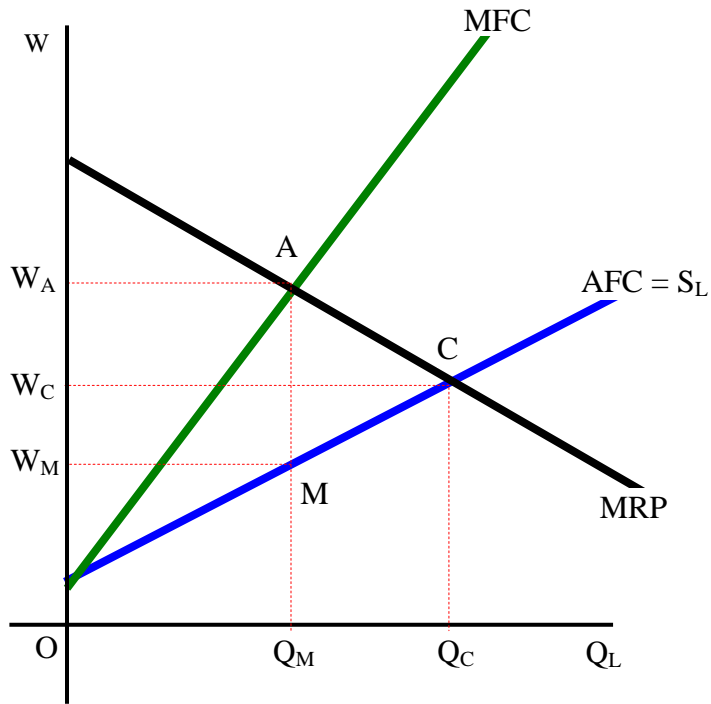


Figure 1

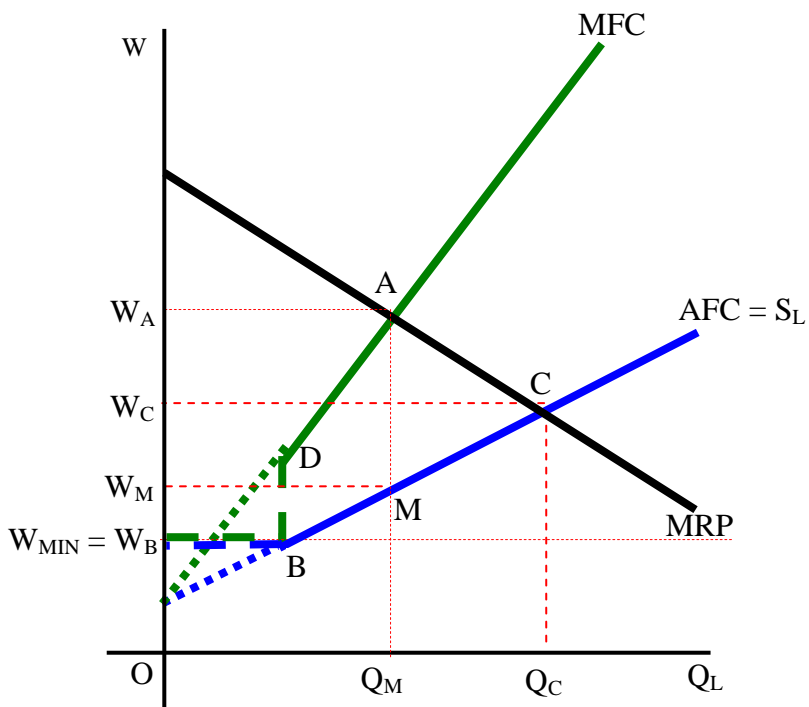


Figure 2

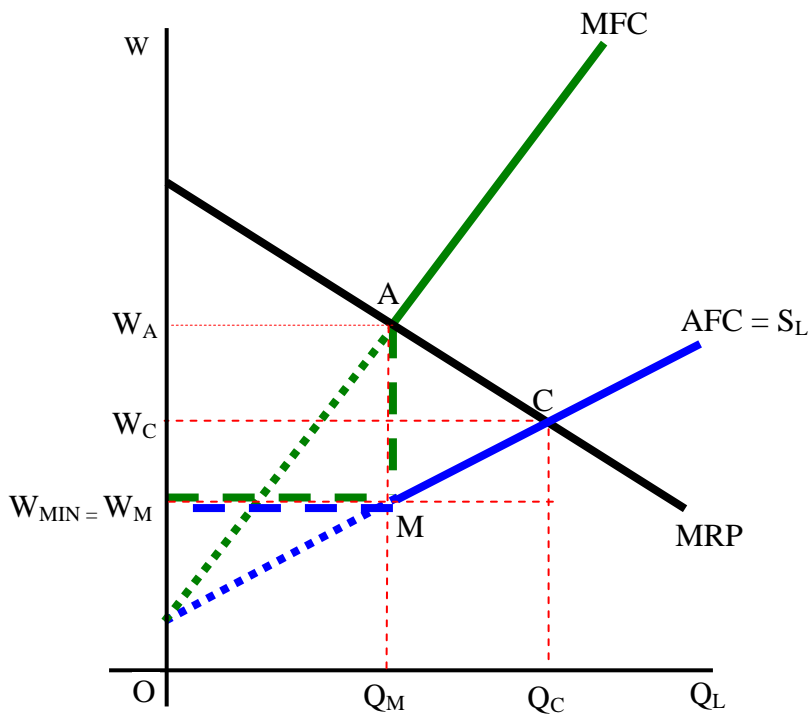


Figure 3

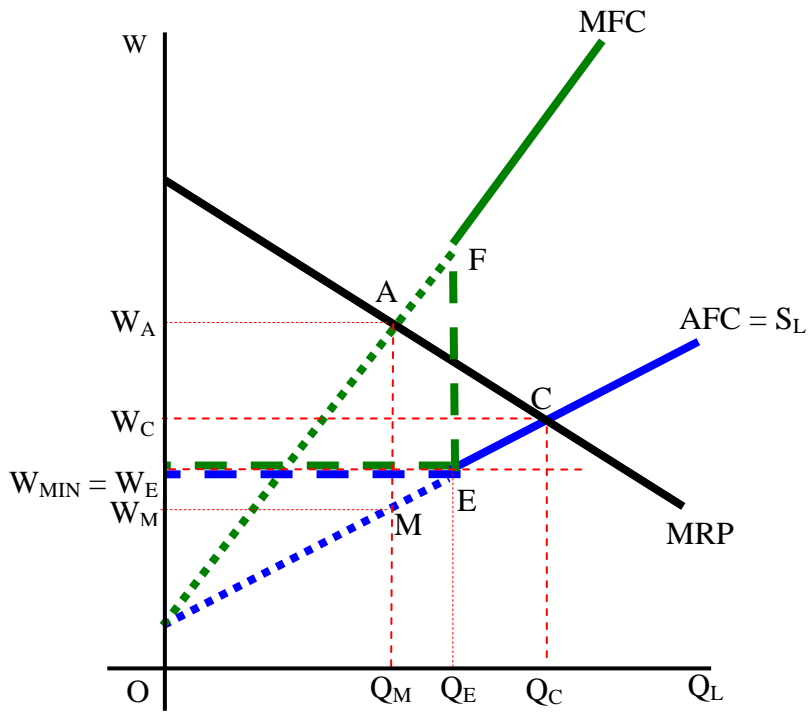


Figure 4

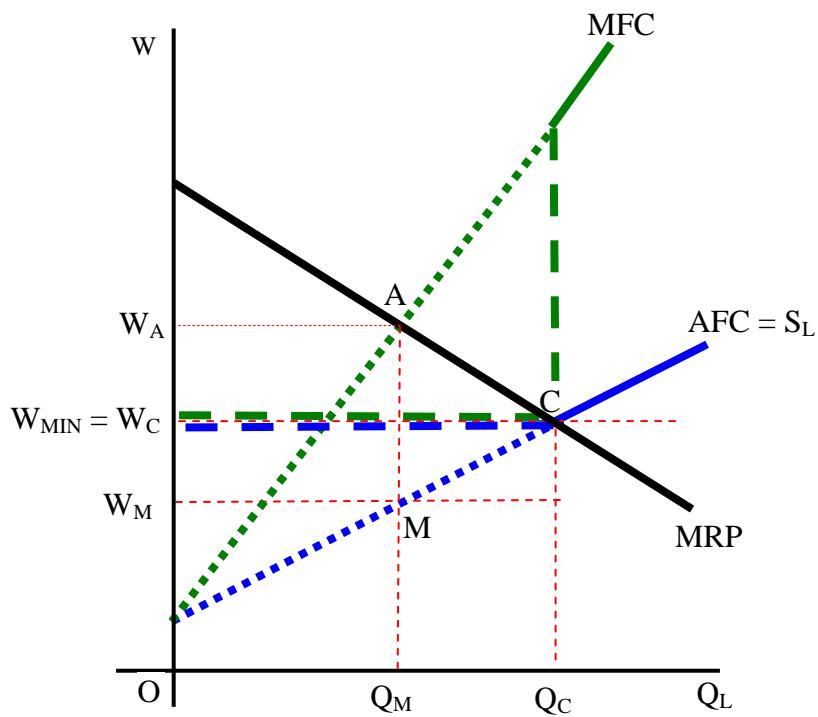


Figure 5

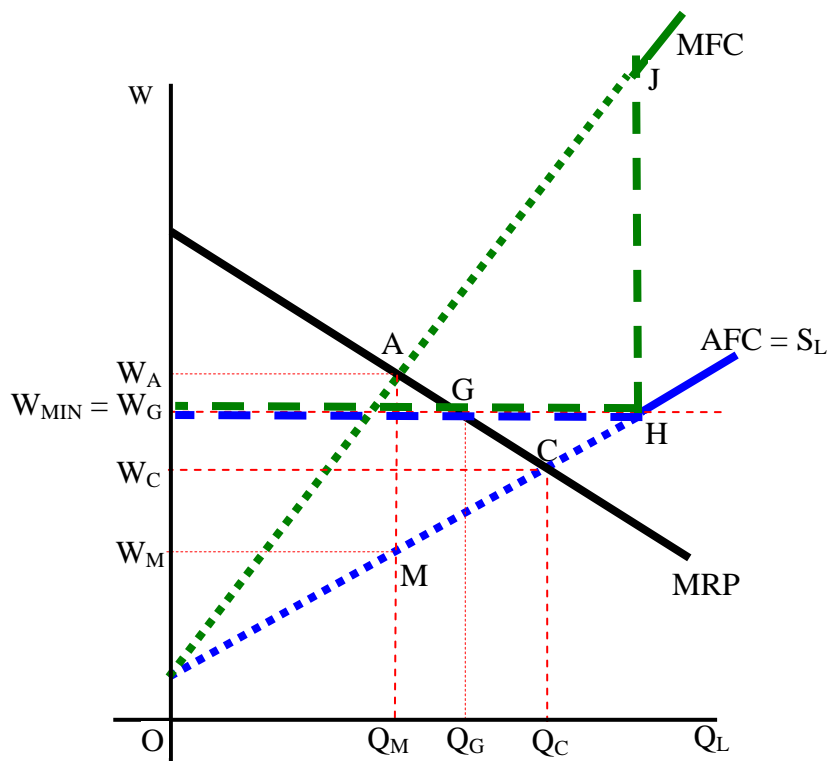


Figure 6

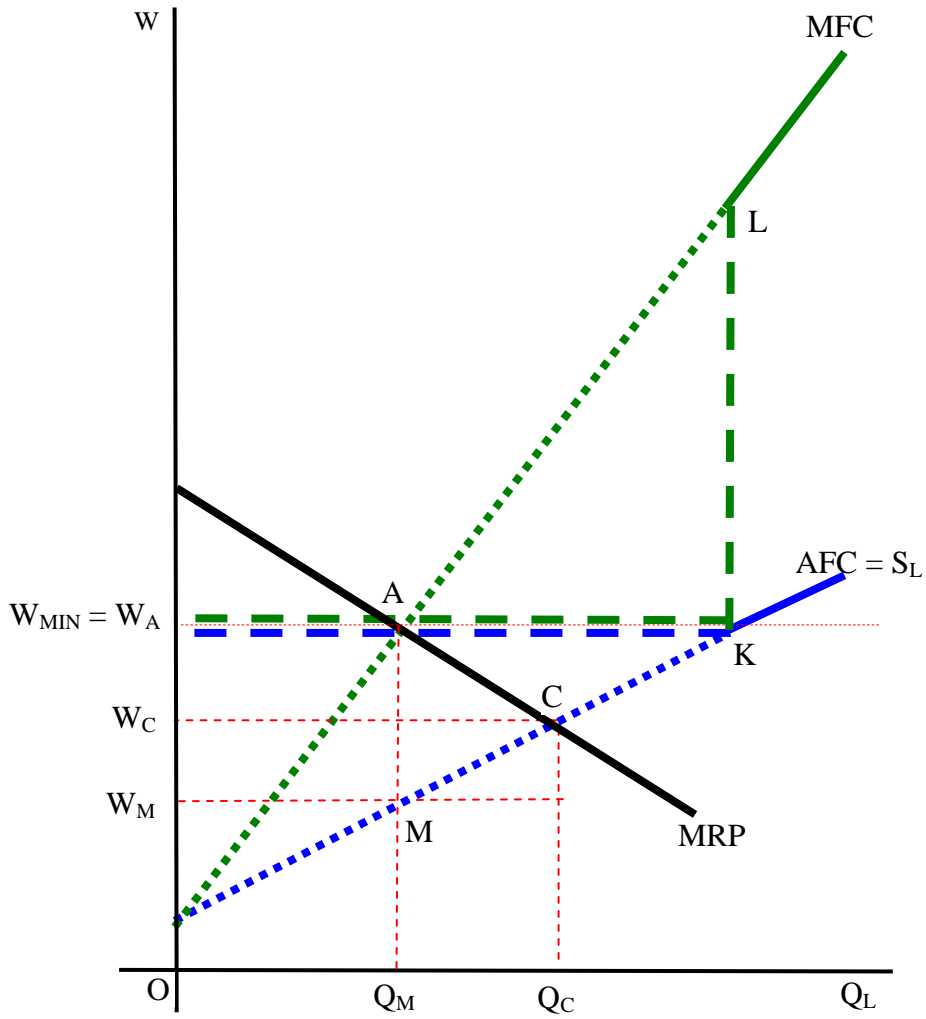


Figure 7

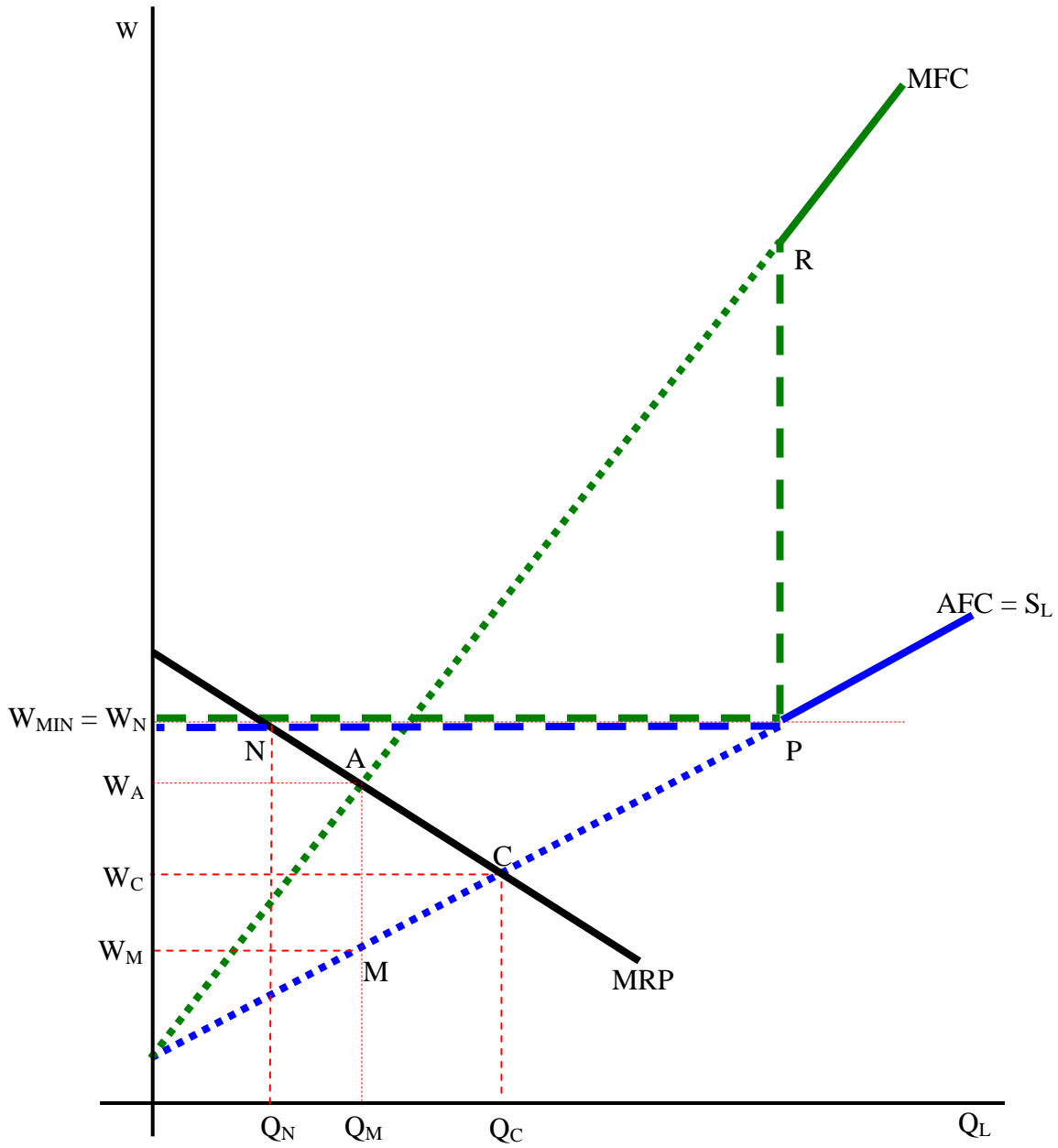


Figure 8

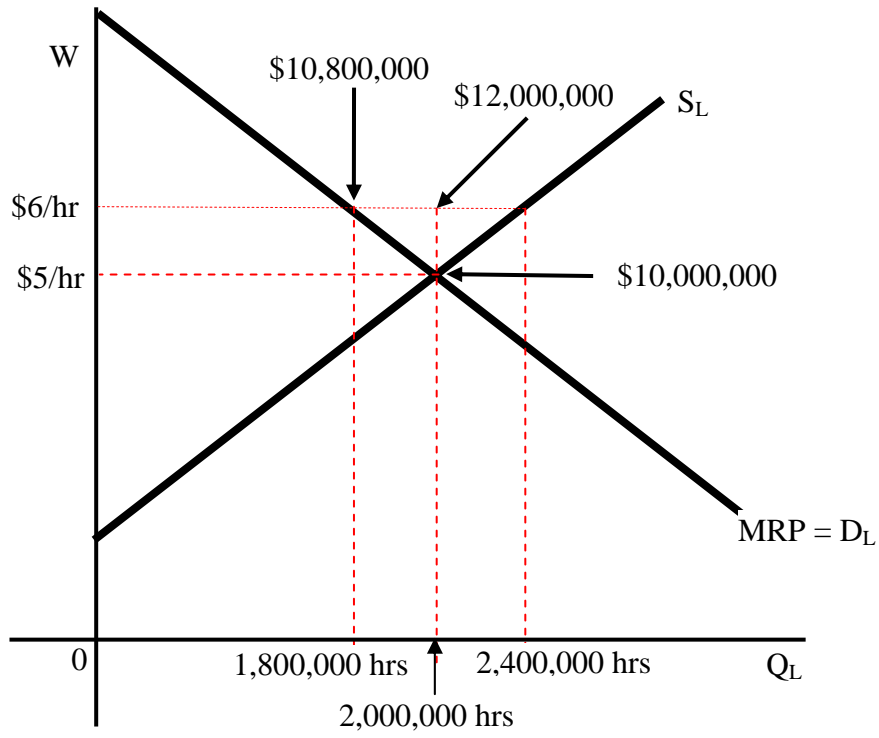


Figure 9

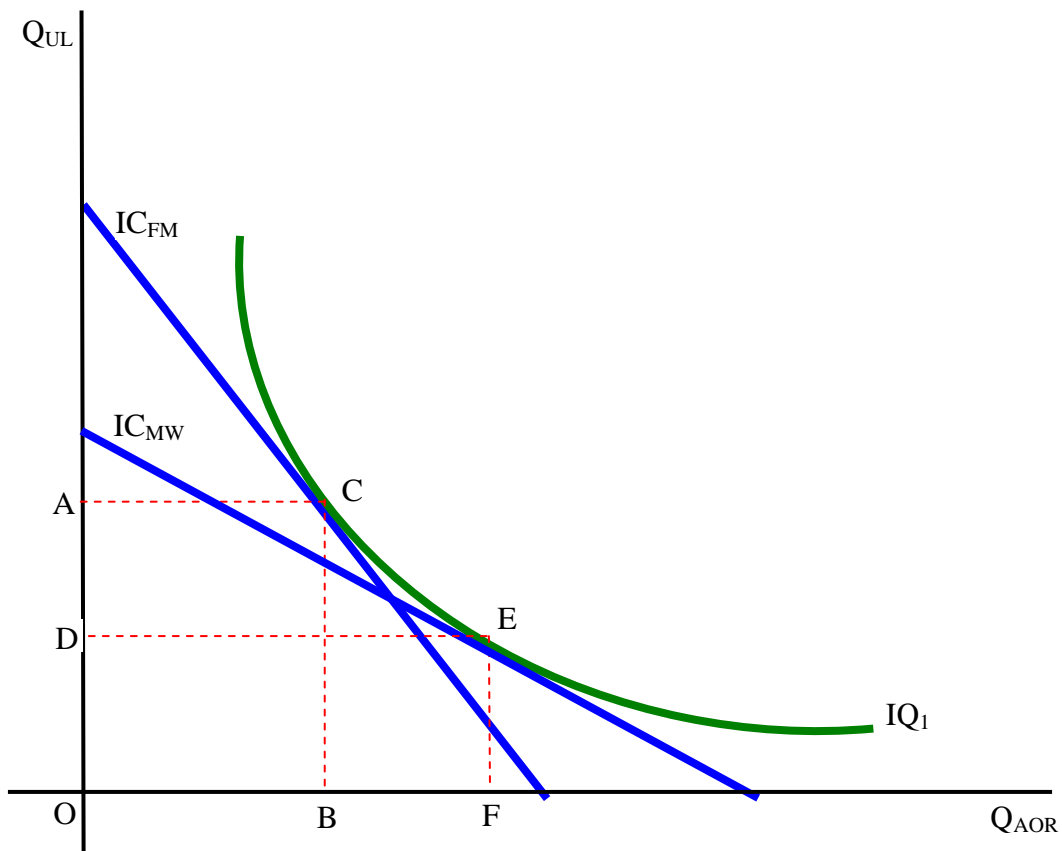


Figure 10

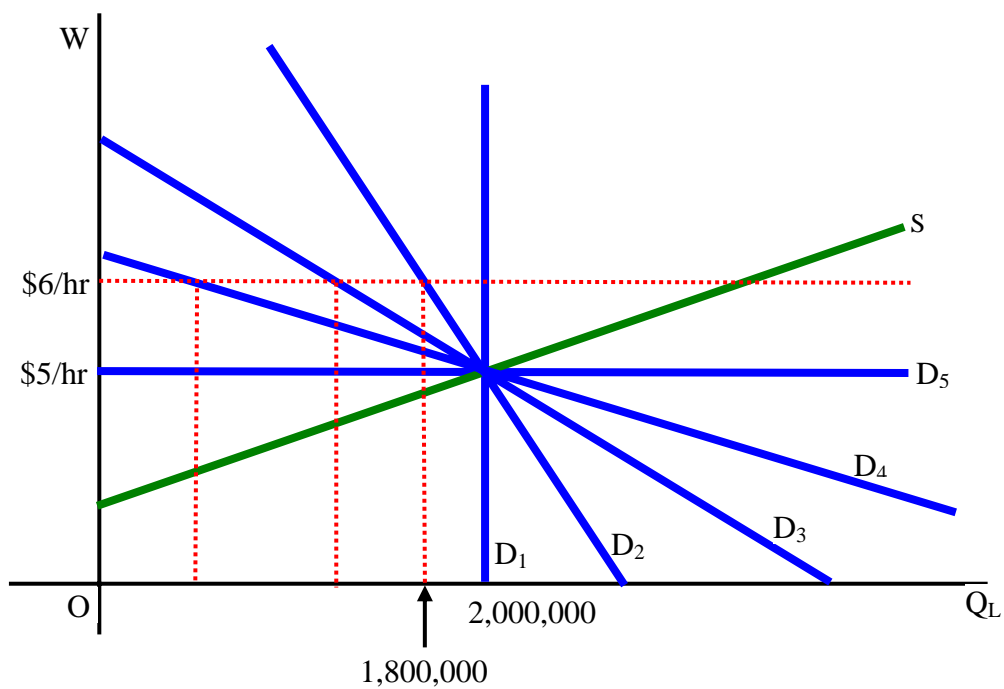


Figure 11

CONTACT INFORMATION:

Walter Block

Harold E. Wirth Eminent Scholar Chair in Economics and Professor of Economics

College of Business Administration

Loyola University New Orleans

6363 St. Charles Avenue, Box 15, Miller 321

New Orleans, LA 70118

Telephone: 504-864-7934

E-Mail: wblock@loyno.edu

William Barnett II

Professor of Economics and Chase Bank Distinguished Professor of International Business

College of Business Administration

Loyola University New Orleans

6363 St. Charles Avenue, Box 172, Miller 319

New Orleans, LA 70118

Telephone: 504-864-7950

E-Mail: wbarnett@loyno.edu

BOOK REVIEWS

Socioeconomic Systems of Russia since the 1850s

Ernest Raiklin

Council of Social and Economic Studies, 732 pages, 2007

The book describes the economic and some of the political developments in Russia and the Soviet Union since the start of the 20th century. In some cases, the author discusses the causes of these developments, but mostly the book provides a description of events rather than their analysis. Finally, the author suggests possible scenarios for the future of Russia.

The most interesting part of the book is the analysis of Soviet ideology and its evolution. It would be worth reading for those interested in Russian and Soviet history. The author persuasively argues that the Soviet version of Marxism, while impossible to define precisely, was a form of religion. It displayed many qualities of a religion and its followers behaved like disciples of a religion. This is an interesting take on the Soviet ideology, which helps in getting a fuller picture of Soviet life.

When describing the evolution of the Soviet economic model the author illustrates how moral and ethical values changed in the Soviet Union over time. He shows how and why the 'faith' in the new religion of communism morphed and eventually faded. The ensuing corruption, in all meanings of the word, is what eventually brought down the Soviet system. The picture painted by the author is vivid and the analysis is interesting and informative. The evolution of ideology and of ethical and moral values likely was a nontrivial contributor to the changes in Soviet economic system. The author presents an intriguing description of these changes, which would be of interest to those studying Soviet history.

The majority of the book, however, is devoted to presenting statistical data about the Soviet and Russian economy. As an economist, I expected the data and its analysis to be the most interesting part of the book. Unfortunately, in many cases, the data presentation in the book is extremely confusing, the reliability of data is suspect, the interpretation of data is often missing or misleading, and some data are simply

inaccurate. In addition, the author seems to have a poor grasp of economic theory. As a result, the quality of the economic analysis in the book is questionable.

On several occasions, the author makes statements regarding economic theory that are simply untrue. For example, in the introductory chapters the author claims ‘... the theory of markets is a theory of *free* markets, of the interchange between *free* economic individuals, *regardless* of the degree of market imperfections. ... This type of reasoning denies the existence of markets, for instance, in Soviet-type societies’ (p. 9, italics in the original). Economic theorists never claimed that markets cease to exist in a Soviet-type economy. Economists were well aware of the existence of markets not only in Soviet-type societies, but even in much more restrictive circumstances, such as in P.O.W. camps (see R. A. Radford, “The Economic Organization of a P.O.W. Camp”, *Economica*, vol. 12, 1945).

In fact, one of the central messages of economics is that market forces always exist and people respond to incentives no matter which political system they live under. To the extent that the Soviet Union was unable, or unwilling, to completely restrict human behavior, market forces manifested themselves. This is a well known and completely unsurprising fact.

There are other instances of similarly inaccurate claims. For example, ‘Countries of mixed capitalism, as a rule, had and have as their goal the attainment of a positive trade balance’ (p. 343). This is simply untrue and has no basis in economic theory. The author also claims that, ‘true to the law of free markets,’ export licenses should be sold to the highest bidder (p. 623). It seems to not have occurred to him that, true to the spirit of free markets, free trade is preferred and export licenses should not exist at all.

An example will illustrate more fully the problems with the quality of data and economic analysis in the book. This example comes from the part of the book which discusses the post-Soviet transition years. On the next page is an exact reproduction of Table 8.3 from the book (p. 598), omitting only the references to the endnotes.

Table 8.3 Real GDP and Money Supply, 1995-2003

Years	Nominal GDP, bln. rubl.	GDP deflator, times to 1995	Real GDP, bln. rubl. (nominal GDP to GDP deflator)	M2, bln. rubl.	M2 to real GDP, percentage	M0, bln. rubl.	M0/M2, percentage
1	2	3	4	5	6	7	8
1995	1428.5	1.0	1428.5	97.8	6.8	36.5	37.3
1996	2007.8	1.5	1338.5	220.8	16.5	80.8	36.6
1997	2342.5	1.8	1301.4	295.2	22.7	103.8	35.2
1998	2629.6	2.16	1217.4	374.1	30.7	130.3	34.8
1999	4823.2	3.672	1313.5	453.7	34.5	187.7	41.3
2000	7305.6	5.1408	1421.1	714.6	50.3	266.1	37.2
2001	8943.6	6.16896	1449.8	1154.4	79.6	418.9	36.3
2002	10834.2	7.402752	1463.5	1612.6	110.2	583.8	36.2
2003	13285.2	8.1430272	1631.5	2134.5	130.8	763.2	35.8

The endnotes corresponding to the table indicate that the data came from *The Russian Statistical Annual, 2004*, the official publication of the government's statistical agency. (The reader should note that in the official Russian statistics M2 consists of currency in circulation and bank deposits and M0 consists of currency in circulation only).

In the discussion following the table, the author claims that the ratio of M2 to real GDP in 1990s indicates that the Russian economy was 'starved' by inadequate money supply. Moreover, '... if we consider M0 only, we can see that money supply even in the 2000s was far from adequate' (p. 598). According to the author, an adequate level of money supply is 'at least 70 percent of real GDP' (p. 598). This idea is repeated later in the book, where the author claims that the inadequate money supply was the result of the tight monetary policy and led to a situation where '... money served only 12-15 percent of Russian GDP, while in developed countries the share was around 70-100 percent' (p. 656). According to the author, this 'inadequate' money supply has led to widespread wage arrear, barter transactions, and dollarization of the Russian economy.

Let's examine the data presented in the table and the conclusions the author draws from them. The first thing that looks suspicious is the ever increasing precision in the GDP deflator values, which increases from one decimal place in 1995 to seven decimal places in 2003. The reason for this is easy to discover. Earlier in the book (p. 556) the author presents data from the same official Russian source showing that the inflation

rate (based on the GDP deflator) was 50% in 1996, 20% in 1997, 20% in 1998, 70% in 1999, 40% in 2000, 20% in 2001, 20% in 2002, and 10% in 2003. It is easy to verify that the above table simply sets the value of GDP deflator to one in 1995 and computes its subsequent values using these inflation rates.

It is not clear whether the author made these computations himself or the values were supplied by the official Russian statistical agency. In either case, they should be taken with a grain of salt. It is difficult to imagine that prices in real life would be so considered as to grow by the even 10-percentage-point intervals every year, so that inflation is 20% or 40% instead of 23% or 44%. Seeing such nicely rounded values for inflation rate, a researcher should be suspicious, even if the numbers came from the official statistical agency.

Even assuming that the value of the GDP deflator and corresponding inflation rate is correct, there are further logical flaws in the analysis. It is unclear what the author is trying to capture by the ratio of M2 to real GDP. If the objective is to measure the ratio of money supply to the value of all transactions the money supply is supposed to support, then one should look at the ratio of money supply to *nominal* GDP. The ratio of money supply to *real* GDP is meaningless in this context.

Finally, there is no economic reason why money supply needs to be 70-100 percent of GDP to be 'adequate.' The money supply can be a lot smaller than nominal GDP and still support all transactions carried out during a year. The reason for this is simple – each money unit, be that a dollar or a ruble, can be used more than once during a year. This concept is called the *velocity of money*, and is introduced in all standard economics textbooks.

Finally, the author's claim that in the developed countries the ratio of money supply to GDP exceeds 70 percent is baseless. To illustrate, the table below compares several measures of money supply in Russia and United States in 1995-2003.

Table: Money Supply in Russia and United States, 1995-2003.

	Russia			United States		
	M0/(nominal GDP)	M2/(nominal GDP)	M0/M2	currency/(nominal GDP)	M1/(nominal GDP)	currency/M1
1995	2.6%	6.8%	37.3%	4.9%	15.4%	32.1%
1996	4.0%	11.0%	36.6%	4.9%	14.1%	34.5%
1997	4.4%	12.6%	35.2%	4.9%	12.8%	38.3%
1998	5.0%	14.2%	34.8%	5.0%	12.3%	40.9%
1999	3.9%	9.4%	41.4%	5.2%	11.8%	44.1%
2000	3.6%	9.8%	37.2%	5.3%	11.1%	47.4%
2001	4.7%	12.9%	36.3%	5.4%	11.1%	48.7%
2002	5.4%	14.9%	36.2%	5.7%	11.2%	50.9%
2003	5.7%	16.1%	35.8%	5.8%	11.4%	50.9%

Sources: for Russia – computed from the data provided in Table 8.3 in the book; for United States – Bureau of Economic Analysis and Federal Reserve, Money Stock Measures, seasonally adjusted (release H.6).

The reader should note that M0 in Russian statistics corresponds to the *currency* in the American money stock measures. M2 in the Russian statistics includes currency and bank deposits, so the closest American counterpart is M1.

The data reveal surprising similarities between Russia and the United States. The ratio of M0 to GDP in Russia is remarkably similar to the ratio of currency to GDP in the United States. The same can be said for the currency and bank deposits (M2 in Russia, M1 in the United States). Even the ratio of currency to the broader money supply (M0/M2 in Russia, currency/M1 in United States) is similar across the two countries.

In light of these data, there is little evidence that the Russian economy was ‘starved’ by an inadequate money supply. The Russian money supply was approximately as large, in relation to its GDP, as was the money supply in the United States. Finally, neither United States nor any other industrialized country has money supply in excess of 70 percent of GDP, as claimed by the author.

Instead of the ‘inadequate’ money supply there is another, much simpler, explanation for the growth of barter and dollarization of the Russian economy in the 1990s. High inflation during this period caused the Russian currency to lose its value rapidly. Consequently, to avoid holding rapidly depreciating rubles, people opted for conducting transactions via barter or with a foreign currency.

There are other instances in the book where the data and analysis are equally questionable. To make matters worse, the author seems unfamiliar with economic and

financial terminology, which results in much of the text being extremely confusing. For example, the author considers purchases of financial securities by households to be *expenditures*, while in reality they represent a form of *saving*. Similarly, when describing dollarization of Russian economy during the transition years, the author views purchases of foreign currency by people as expenditures, instead of a more accurate view – that these purchases represented portfolio allocation of savings.

In the discussions of banking and financial system the terminology becomes especially difficult to follow. The author confuses the rate of return on a financial security with its yield or the nominal interest rate. He even uses a phrase ‘the profitability of government financial papers’ (p. 572), which can mean either the *rate of return* or the *yield to maturity* of government bonds – two very different concepts. Another mysterious term – ‘circulating assets’ – appears often. My own knowledge of the Russian financial terminology allows me to venture a guess that it stands for the *working capital*. Most English-speaking readers, however, would be left at a loss.

The confusion with the terminology is compounded by a nearly incomprehensible writing style. Passive voice dominates. Grammatical and spelling error abound. Some of them are entertaining and innocuous, such as ‘gorilla detachments’ instead of ‘guerilla detachments’ (p. 152). Others, such as ‘expansive’ instead of ‘expensive’ (p. 347), do alter the meaning. And in one instance the period between 1997 and 2003 is referred to as ‘the end of the nineteenth – the beginning of the twentieth centuries’ (p. 502).

Overall, while the book contains an interesting discussion of the evolution of Soviet ideology, the economic analysis and the data presented are questionable. This book may be worth reading for those interested in ideology. Readers searching for an informative analysis of economic data should look elsewhere.

Reviewed by Polina Vlasenko, *American Institute for Economic Research*

Pioneers of Law and Economics**Lloyd R. Cohen and Joshua D. Wright, eds.****Edward Elgar Publishing, 300 pages, 2009**

Every once in a while, a book comes along that underpromises and overdelivers. This book is just such an accomplishment and that is all the more remarkable because it is one of those rare birds that is not only an edited volume but one with pure gems in each and every essay. Each of the essays in this text centers on one particular individual who made his (and all of the individuals referenced as pioneers are men) mark on the then-nascent field of law and economics.

The essays start with one on Ronald H. Coase that is written by Thomas W. Hazlett. It quickly juxtaposes Coase's major contribution to economics and the field of law and economics (transaction costs matter) with the one work of his that is the most cited article in economics ("The Problem of Social Cost"). Interestingly and tellingly, it is also one of the most misused concepts as generations of young economists have mistaken applied the Coase Theorem, which states that it does not matter who receives a property right provided there are no wealth or transaction costs, to cases where transaction costs do occur. Of course, those in Law and Economics have typically not made this error, recognizing the broader implications of needing to examine transaction costs, especially when they are asymmetrical, but the error nonetheless does get transmitted. Other areas that do not escape Coase's keen eyes are the question of public goods provision ("The Lighthouse in Economics") and his influence on others (Cheung's "Fable of the Bees" and Liebowitz and Margolis's "Fable of the Keys" are given as examples).

The next two essays, both on Aaron Director, highlight an economist who hardly published at all and yet influenced an entire generation of scholars who came out of the University of Chicago. The essay on "Aaron Director's influence on antitrust policy" is especially powerful since few knew of him although many felt his work through the writings of others.

Several essays follow with a similar pattern: one (or two) economist(s) are highlighted and their intellectual contributions discussed. To take a lifetime of achievement and distill it into a book chapter is a worthy achievement, made all the

more remarkable by the conciseness, yet completeness, that each chapter entails. For example, coverage of Demsetz's theory of property, which forms the basis for neoclassical understanding of the concept, is described succinctly in just one line: "property is the means by which externality problems [are] typically solved in the real world." (page 78) This central insight allows us to understand how and why property rights develop. Without externalities, there is really no need to establish property rights of anything greater than the simplest variety: I own it so that you can't have it unless I say so. However, property rights are far more pernicious than that. For example, copyright, which is an intellectual property right, states that the words on the page of the book I am reviewing are the property of the copyright holder (in this case Lloyd Cohen and Joshua Wright) but copyright law allows me, as a reviewer of this book, to quote directly from it, trespassing, if you will, on the property right of the original authors. This trespass is not without limitation, however, being inherently required to take only a limited portion sufficient for the needs to illustrate a point and not to the extent that it would damage the value of the property right to the original rights holder. Still, this trespass could not be accomplished without the more nuanced concept of property rights described in Demsetz's theory.

Still, the book is not without its faults. To ascribe that it is a book on the "pioneers" of law and economics without a discussion of Adam Smith, David Ricardo, and John R. Commons is to present a rather myopic perspective to say the least. This is, of course, covered in the introduction, although the fact that nowhere are Commons' major contributions recognized even in passing is quite the shock. Even more telling is the conspicuous absence of F. A. Hayek whose seminal works, *The Constitution of Liberty* and *Law, Legislation, and Liberty*, belong in any good library of law and economics. Hayek also falls within the time frame selected by the editors for inclusion, being the latter half of the 20th century and his influence is still being felt among the Austrian School of economics.

Yet, these sins of omission do not render the book any less valuable for the essays that do appear within. Reading this book provides an intellectual framework for the history of thought in the field that until now it had sorely lacked.

Reviewed by Zagros Madjd-Sadjadi, Winston-Salem State University

Thorstein Veblen and the Revival of Free Market Capitalism
Janet T. Knoedler, Robert E. Prasch, and Dell P. Champlin, eds.
Edward Elgar Publishing, 239 pages, 2007

Although the title of the work bespeaks to a more innocent time prior to the near collapse of the world economy over the past two and a half years, this collection of essays may provide a bit of “I told you so” to the financiers of the world. In a world where institutions didn’t seem to matter, where capital flowed freely, and, to the extent that institutions did matter, the Washington Consensus was that all had to have the same formula for success, Thorstein Veblen’s theories of evolutionary economics and institutions may have seemed quaint. Yet, the underlying need to understand that the collapse was the *result* of unresponsive and antiquated institutions, both public and private, of institutions that simply could not and cannot regulate the behemoth of the financial markets because they suffer from institutional sclerosis is something that most academics who appear hell-bent on accomplishing such regulation anyway is a lesson that will not probably be learned until we plunge into another downturn, if the lesson is ever learned at all.

The essays in this book provide an antidote to this problem, although like any such elixir that is concocted before the disease is seen in its full-blown effect, their sharpness have been somewhat dulled by the passage of time. Anne Mayhew begins the quest to understand Veblen in the modern world with her excellent essay, “The place of science in society.” Scientists such as Richard Dawkins have launched a war on religion and God in their hopes of overturning centuries of culture. Yet this quixotic approach is not only doomed to failure but rather can cause individuals who would otherwise be sympathetic to the cause of science to turn against it. We seem so certain that we know what is right when we follow science, yet did we not go down this path with the financial engineers and their AAA-rated subprime mortgage-backed securities that had been obviated of risk through the use of tranches through which payments would flow such that the first to be paid would be the AAA-rated group, the next to be paid would be the BBB group, and the last to be paid would achieve junk status? The financial wizards of Wall Street applied science to their discipline and brought the world financial

system to near collapse. Is it not possible that science will do the same in other spheres? We know so little of weather that we cannot predict it past next week but we seem to relish the idea that we know so much about climate that we can predict it a hundred years hence. Whether this is true or not is immaterial; the question is whether people believe in it and are willing to make known sacrifices to avoid unknown calamity. Furthermore, Western hostility to everything that is not scientifically-based meets with Eastern mysticism that has hundreds of millions, if not billions, of adherents. Such “quackery” as homeopathic medicine, acupuncture, and acupressure have found their way into mainstream life and the fact that people not only believe in such remedies but that the placebo effect generated by these “treatments” seems to cause greater comfort than modern medicine when it is not believed in is a subject to which science needs to devote its resources to understanding.

Prasch’s article has us understanding that property *is* power and that property rights are merely a means of maintaining that power when some have much and others little. When one has property, one finds that liberty is bountiful, while those without find that liberty means relative little.

Hake’s paper is particularly important in light of the financial meltdown of 2007-9. The intangibility of assets and their ownership has set the stage for financial innovation of a grand scale. Indeed, the invention of ‘goodwill’ as a catchall for everything that a company has as its value that explicitly is *not* capital is probably the single greatest determinant of financial instability in the modern world. Goodwill, often acquired over time, can be destroyed in an instant and not just by something that a company does or fails to do but rather based on the feckless forecasts of financiers.

The other papers in the volume are similarly adept at looking at economics or society from a pragmatic lens. The influence of Dewey’s philosophy of pragmatism finds its expression in these works, no less than Veblen. This is a book that begins a critical reexamination of institutional economics in the aftermath of the dominance of neoclassicism that was at its apex when the book was published in 2007. Picking it up now provides us a refreshing look at the world and the economy and warns us of the dangers involved with “the arrogance of too many economists in asserting both at home and abroad that their proposed reforms are based on scientific truth and not derived

from one of those aspects of culture that lies beyond the narrow realm of Western superiority.” (page 14)

Reviewed by Zagros Madjd-Sadjadi, Winston-Salem State University