CAN THE SHARE ECONOMY CONQUER STAGFLATION?*

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This paper analyzes Weitzman’s contention that a share economy will significantly improve the unemployment-inflation tradeoff. It is shown that the argument rests on a critical proposition that share contracts lead to labor’s being in perpetual excess demand. The basis of this proposition is challenged using a wide variety of models of the labor market. The paper concludes that the microeconomics of share economies differs little from that of wage economies, and that a widespread introduction of share contracts is unlikely to improve macroeconomic performance.

“This is supply-side economics par excellence”
[Weitzman, 1984].

Mixed capitalist economies of the West have proved to be remarkable engines of progress for their citizens. Yet in the midst of this miraculous economic progress, capitalism has suffered periodically from the blight of high unemployment. In a series of articles and in a popular book, The Share Economy, Martin Weitzman of M.I.T. has advanced a radical proposal for the conquering of stagflation.¹

He asserts that the source of excessive unemployment lies in the microeconomics of compensation systems, not in the functioning of the macroeconomy. He proposes moving from a wage system to one based on profit-sharing or revenue-sharing, holding that such a system would experience lower average unemployment than today.

The purpose of the present paper is to evaluate whether the share economy will indeed conquer stagflation. Section I outlines the key definitions and propositions in favor of the share economy. Section II analyzes Weitzman’s technical argument for moving toward a share economy. Sections III and IV turn to the impact of the share proposal on the natural rate of unemployment, after which the last section contains concluding remarks.

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¹ The major popular statement of Weitzman’s view is in Weitzman [1984]. The technical arguments are developed in Weitzman [1983, 1985a, 1982].

Discussion of aspects of the share economy are contained in several articles in Nordhaus and John [1986] and in Blander [1986].

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I. How a Share System Would Operate

This section presents Weitzman’s definitions and arguments in summary form. The derivations of key propositions along with an analysis and critique of the arguments are contained in subsequent sections.

1. A “share economy” is one where the cost per unit labor falls as employment rises. Put differently, the marginal cost of labor (MCL) in a share economy is below the average cost of labor (ACL); an economy with \( MCL < ACL \) is an “inelastic compensation system” (because the elasticity of labor cost with respect to employment is less than 1). Note that, although an inelastic compensation system does not require sharing arrangements, Weitzman examines share systems that literally share profits or revenues.

2. Focusing on share-type compensation systems, Weitzman analyzes three in detail: the product wage, revenue sharing, and profit sharing. The product wage, indexing the wage rate to the firm’s output price, is fraught with measurement problems that it can be ignored for practical purposes. Given the low share of accounting profits in the American economy, profit sharing has the defect of having a major effect on corporate decisions with little quantitative impact on compensation. Sharing revenue or value added, on the other hand, is likely to display greater cost inelasticity for a given share ratio.

A Major Propositions

Weitzman’s central propositions are the following:

3. All compensation systems have the same long-run equilibrium resource allocation. This assertion is perhaps the most surprising one. According to Weitzman, firms in the long run must end up paying the prevailing wage (no matter what the compensation arrangement). This proposition extends to capital as well.

4. A share system will tend to a long-run equilibrium in which labor is in excess demand. The technical argument will be analyzed in the next section, but the intuitive argument is that a share firm will be delighted to hire additional workers because the marginal cost of labor is less than the average wage, which in turn equals the marginal revenue product of labor.

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2. This is proposition 1 in Weitzman [1983], p. 773. Also see Weitzman [1984], pp. 89-91.

3. This is proposition 2 in Weitzman [1983], p. 774. Also see Weitzman [1984], Chapters 1 and 8.
5 The share economy will produce a lower natural rate of unemployment and might well display higher real wages and productivity as well. The reasoning behind this proposition, following directly from points 3 and 4, is that the overall macroeconomic equilibrium is one where firms have a large number of vacancies yet do not ignite a wage-price spiral. This system can be contrasted with today’s economy, which is biased toward high unemployment at the long-run macroeconomic equilibrium.4

6. A competitive economy will not gravitate naturally toward the more efficient share economy because of macroeconomic externalities. Why does the economy not move naturally toward sharing systems? Weitzman argues that “high stable pay for insider workers . . . suits the interests both of the high-seniority workers and of their satisfying employers.”5

7. Because market forces naturally push the economy toward a wage economy rather than a share economy, public policy measures need to be taken to induce firms to adopt share-type compensation systems. Weitzman proposes that share-type income receive a tax preference; more specifically, he proposes that one-half of share-type income of publicly traded corporations be tax-exempt. Weitzman claims that if the proposal succeeded in lowering the natural unemployment rate by one percentage point, the scheme would be break even for the Federal government.

II. WEITZMAN’S EQUILIBRIUM ANALYSIS

Weitzman’s defense of the share economy rests on an analysis of share and wage systems in an equilibrium labor market. “Equilibrium” here means that workers and firms behave competitively, and wages or contracts are set so as to clear labor markets at the time contracts are signed. The argument rests fundamentally on the proposition that, in equilibrium, labor will be in excess demand. By “excess demand,” Weitzman means that firms would hire an additional worker at the going compensation package.

The structure of the proof rests on the validity of points 3 and 4 above: It is first shown that all compensation systems have the marginal revenue product of labor equal to the average compensation per worker (point 3 above). Using the results of point 3, it is shown that, when firms exploit their share-type contracts, at the long-run equilibrium for a share economy there is excess demand.

4 This analysis is presented in Weitzman [1987].
5 See Weitzman [1985a] p. 946, fn., as well as Weitzman [1984], Chapter 9
for labor. Hence, because of the excess demand for labor at the long-run equilibrium, the share economy will generate a lower unemployment rate. Because the reasoning rests on the validity of propositions 3 and 4, we first analyze these points.

A. Equivalence of Long-Run Equilibria in Different Compensation Systems

To understand the share economy, this section outlines a highly simplified model of a share system. Assume that there are a number of identical firms, each producing output \( Q \) with capital \( K \) and labor \( L \). Factor markets are competitive, with capital rented each period at rental \( c \); labor has average compensation per worker of \( v \); output price is \( p \).

Demand for the \( i \)th firm’s output is given by the inverse demand function, \( p_i = D(Q) \), while output is given by \( Q_i = F(K_{i}, L_{i}) \). Compensation \( (v_i) \) is divided into a wage-type element \( (w_i \text{ per worker}) \) and a fixed share \( s_i \) of revenues (for a share element of \( s_i p_i Q_{i}/L_{i} \) per worker), with total compensation given by \( v_i = w_i + s_i p_i Q_{i}/L_{i} \). Because factor markets are competitive, this imposes a compensation constraint that compensation per worker must be equalized across firms, \( v_i = v^* \), where \( v^* \) is the competitive compensation level. Defining \( R(K, L) \) as the revenue function, profit maximization yields

\[
\begin{align*}
R_L &= w + sR/L = v^* \\
R_K &= c.
\end{align*}
\]

Hence, in a share economy a firm in a competitive labor market will behave as if faced by a wage system. This shows point 3, the isomorphism between wage and share economies, and the isomorphism holds for other sharing systems as well.

B. Excess Demand for Labor in Equilibrium: The Argument

Weitzman next argues that, at the long-run equilibrium described in (1) and (2), the firm has excess demand for labor. The argument runs as follows: profits are given by \( \pi(K, L, w, s) = R(K, L) - [w + sR(K, L)/L]L - cK \). Differentiate the profit function with respect to \( L \), and disregard the compensation constraint that \( v = v^* \):

\[
\frac{\partial \pi}{\partial L} - R_L - v^* - L\left[\frac{sR}{L} - \frac{sR}{L^2}\right].
\]

6. The analysis here follows the treatment in Weitzman [1983], pp. 771–77
7. See Weitzman [1983], p. 774.
At the long-run equilibrium of a competitive economy at A, the firm equates the marginal revenue product of labor \( MRP \) to the competitive compensation rate, \( v^* \), demanding labor \( L^* \). In the short run, according to Weitzman, the firm ignores the compensation constraint and wishes to move to point B where \( MRP \) equals the marginal cost of labor, wishing to buy \( L^{**} \) units of \( -\cdot \). Hence, if the firm can ignore the compensation constraint in the short run it will have excess demand for labor of \( (L^{**} - L^*) \).

But from (1) and the definition of profits, this yields

\[
\frac{\partial \pi}{\partial L} - \frac{s}{L} (\pi + cK) > 0.
\]

Hence, disregarding the compensation constraint, firms display "excess demand for labor," i.e., would willingly hire more workers under the existing compensation package.\(^8\)

The argument is illustrated in Figure 1. Maximum profits subject to the compensation constraint (Weitzman's long run anal-

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8. Understanding the term "excess demand for labor" is central to the discussion. A firm displays excess demand for labor, in Weitzman's analysis, when hiring an extra worker at going compensation and demand parameters raises the firm's profits. There is no necessary implication that a firm with excess demand for labor will want to raise wages or other compensation parameters.
lyzed in the last section) is found at point $A$. In the short run Weitzman allows the firm to ignore the compensation constraint that $v - v^*$, so the firm would clearly wish to move to point $B$, the point at which the MRP equals the marginal cost of labor rather than the average cost of labor. Hence, if the competitive compensation constraint can be ignored in the short run, the firm would want to hire $(L^{**} - L^*)$ additional workers.

The key to Weitzman’s argument is to combine perfect mobility of workers in the long run with perfect immobility in the short run, where both are embedded in perfectly competitive labor markets. How does Weitzman rationalize this key assumption? At this point in the theory, there is a blank page. The next section lays out some alternative approaches to labor-supply dynamics in order to assess whether the long-run and short-run behavior can be derived rigorously from a consistent theory of the labor market.

C. Excess Demand under Alternative Labor Supply Assumptions

The last section identified a central difference between the long-run and short-run behavior in labor markets as key to Weitzman’s analysis of the share economy. In this section we analyze alternative assumptions about labor supply to determine whether Weitzman’s conclusions hold in situations with explicitly developed labor-supply behavior.

**Perfect Competition with Perfect Mobility.** Start by assuming that workers are homogeneous and perfectly mobile in the short run as well as in the long run. Consider a firm at long-run equilibrium point $A$ in Figure I. If the firm succeeded in hiring $L^{**}$ workers, the existing workers would find their pay reduced below $v^*$ and would quit working. Since the firm hardly wants to see its entire labor force march out the door, it would in fact not want to hire an additional worker in the long-run equilibrium, so a profit-seeking firm would therefore not exhibit excess demand for labor in such a situation.

**Delayed Reaction Model.** Given the existence of frictions in labor markets, it is useful to relax the assumption of perfect competition to see whether this might generate excess demand for labor in a share economy. Assume that workers are committed to their jobs for one period but can leave low-compensation firms at the end of the period. Further assume that the firm produces output with labor alone, with a revenue function given by $R(L_t) = L_t^2$. Labor is supplied to the firm as a function of last period’s compensation,
$v_{t-1}$, where $L_t^*$ is labor supply:

$$L_t^* = \begin{cases} 0 & \text{if } v_{t-1} < v^* \\ [0, \bar{L}] & \text{if } v_{t-1} \geq v^*, \end{cases}$$

where $\bar{L} > L^*$ = long-run equilibrium labor demand by firm. Discounted profits ($Z$) are given by

$$(6) \quad Z = \sum (1 + r)^{-t} [(1 - s)L_t^* - wL_t],$$

subject to (5).

In equilibrium, if the firm wishes to have any labor supplied next period, it must set its compensation at least as high as $v^*$. If it is willing to go out of business next period, it can maximize profits, ignoring (5). For simplicity, assume that when a firm goes out of business, it stays out of business. Then, through the firm’s penultimate period, it will pay the competitive compensation $v^*$, with employment of $L^*$. For the last period, it will move to the low-wage equilibrium $L^{**}$.

The exact dynamics of such firms leads us astray from our analysis of the share economy. The key point is that, even though the terminal firms do move to the short-run equilibrium proposed by Weitzman, they are not in positions of excess demand for labor. They simply increase their demand for labor to $L^{**}$, breathe their last gasp, and expire.

**Imperfect Competition.** Another possible rationale for Weitzman’s excess-demand-for-labor proposition is that firms face imperfections in labor markets, say because labor markets are segmented so that firms must pay higher compensation levels if they want to attract more workers. Assume that firm $i$ can attract $L_t^i$ workers according to $L_t^i = H_i(v_t)$, $H_i(v_t) > 0$. Again suppressing subscripts and using the same simplifying assumptions as in the last section, maximizing profits yields

$$(7) \quad \beta L^{\beta-1} = v + L/(H'(v)) - v[1 + (E_{Lw})^{-1}],$$

where $E_{Lw} = H'(v)L - v/L$ = supply elasticity of labor with respect to compensation.

This approach clearly will not resuscitate the excess-demand-for-labor proposition. Equation (7) simply modifies the competitive market equilibrium shown in equation (1) by introducing the term in brackets on the right-hand side to reflect the point that, under imperfect competition, the supply elasticity of labor ($E_{Lw}$) is less than infinity. In the equilibrium shown in (7) there is no excess
demand for labor; i.e., firms will not hire additional workers at the going compensation package.

An Incentive-Compatible Contract A final approach considers firms and workers who enter into compensation contracts, after which firms set the employment level that maximizes profits. In a full-information equilibrium, the contract might well have share elements. Furthermore, the labor-supply dynamics might be such that a short-run equilibrium would differ from the long-run equilibrium without a mass migration away from the firm.

In such a situation an equilibrium contract would be one in which the short-run equilibrium (the myopic equilibrium posited by Weitzman) would occur where the average compensation level was equal to the competitive compensation level. In other words, if firms were given the freedom to adjust employment without workers abandoning the firm, then an equilibrium might indeed occur at point B in Figure I; however, the incentive-compatible contract would be one in which the average compensation level at point B was at the equilibrium compensation level $v^*$. At point B under such a contract, firms are maximizing profits in both the short run and long run, while workers feel contented with their compensation levels and do not feel cheated when firms set their profit-maximizing levels of employment. Again, there is no excess demand for labor in the short run.

The Car Dealer Analogy Weitzman appeals to a powerful analogy in describing the operation of his share economy—that Chamberlinean firms seem to be willing to sell more at the going price.9 On closer look, the analogy fails. The reason that Chamberlinean firms are eager to sell at existing prices is that their prices are fixed or administered. A Buick dealer has a given sticker price, set at the point where $MC - MR$. But at the given sticky sticker price, the dealer’s $MR$ is its price, which is in fact above $MC$. If the Chamberlinean price were flexible, then $MR$ would come back to (local) equality with $MC$ and the eagerness in the car salesman’s eyes would quickly glaze over.

In the share economy there is no assumption about wages being administered. Looking back at Figure I, an administered wage would pay each worker $w^*$ even as employment increased. But in the share economy, compensation falls as employment increases, so the analogy with the administered price for Chamberlinean firms breaks down.

9. See Weitzman [1984], pp. 6–8 and 19
III. Disequilibrium Properties of Wage and Share Systems

The rigorous microeconomic foundations of Weitzman’s model, criticized in the last section, lie strictly in the domain of perfect competition. But the verbal defenses are constructed on a wholly different terrain—that of imperfect competition with slowly adjusting prices and wages. In response to the criticisms of the last section, a staunch defender of the share system might retort that the analysis is defective because it is based on perfectly competitive markets rather than on disequilibrium markets with slowly adjusting wages and prices. This is a plausible response, although it is one that would apply equally to Weitzman’s own analysis. We are hence driven to ask whether—even though the equilibrium properties of wage and share systems are identical—the disequilibrium properties of the two systems might diverge. Such an analysis could be directed to the easier question of the disequilibrium behavior in perfectly competitive systems or to the more difficult case of imperfectly competitive economies.

Consider first the response of wage and share systems to shocks in a perfectly competitive economy with flexible wages and prices. Assume that there are free entry and exit into all industries; that capital and labor are rented on competitive markets; and that a complete set of futures and insurance markets exist and clear at all times. Indeed, we might allow for all kinds of firms: owner-managed firms, director-managed firms, or labor-managed firms that maximize the earnings per worker.

It turns out that the disequilibrium properties of the hypothetical wage and share systems, whether capitalist-managed or worker-managed, are identical. Compensation rates of capital and labor are driven by tastes and technology, and, as long as all markets exist and clear, the form of industrial organization is irrelevant. This result also implies that perfectly competitive, market-clearing wage and share systems will both display the comparative static or dynamic properties that have been extensively analyzed in competitive general equilibrium theory.

The isomorphism between perfectly competitive wage and share systems suggests that any differential behavior between the two systems is likely to arise from the absence of market-clearing elements. A disequilibrium argument can be developed using the concept of the “supply price of labor.” This concept is the market

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10. This argument is sketched in the context of whether labor-managed or capitalist-managed firms are more likely to introduce innovations in Samuelson [1957].
equivalent of an individual worker's reservation quit-wage. Consider an autoworker who contemplates leaving the auto industry and must face the hazards of the job-search process. Weighing the search costs, probabilities of hire, duration of wait, and potential wage rates, the worker will calculate a reservation quit-wage such that, for the given parameters of the search process, the worker is indifferent whether to quit or to remain in the auto firm; this wage is called the supply price of labor. In frictionless competitive markets with flexible wages and perfect mobility, the supply prices of labor of all firms will be equal and will equal the market wage rate. In the disequilibrium context considered here, by contrast, the supply prices may well differ from firm to firm depending on search costs, available information, hire probabilities, and so forth.

To understand the impact of a share system, consider a Taylor-style economy characterized by a large number of competitive industries (see the model analyzed in Taylor [1980]). Each industry executes overlapping share or wage contracts with its own workers. As in the last section, the short-run equilibrium occurs where the MRP of labor equals labor's MC, subject to the market compensation constraint. More precisely, if total compensation is given by \( V(L) - \nu L = (w + sR/L)L \), the short-run equilibrium for the demand for labor is then given by

\[
R_L = \max [V(L), \nu^*],
\]

where \( \nu^* \) represents the supply price of labor. The logic of (8) is that firms will set their employment at that level where the MRP of labor \( R_L \) is high enough both to cover the marginal cost of labor and to attract workers by paying labor's supply price. Note that \( V(L) - \nu - w \) in a wage economy, while \( V(L) < \nu \) in a share economy.

In normal times the firm's compensation level equals the compensation prevailing in outside labor markets; that is, the \( \nu^* \) term is the binding constraint in (8), so \( R_L = \nu - \nu^* \). In recessions, by contrast, the prevailing employment climate deteriorates, vacancies decrease, the probability of employment outside the firm declines, and \( \nu^* \) therefore falls; similarly in booms, \( \nu^* \) rises. Because contracts are renegotiated infrequently, however, the compensation schedule \( \nu(L) \) is relatively sticky over the business cycle.

Under this interpretation of how labor markets function, wage and share firms would respond differently to a cyclically varying supply price of labor. Under wage contracts equation (8) holds that \( R_L = \max [w, \nu^*] - w \), so as the supply price of labor declines in
recessions, the employment decision is unchanged. In a share economy during normal times, $R_t - v^* > V(L)$. Hence, when $v^*$ falls in recessions, employment can fall less sharply under a share contract than it would under a wage contract, although employment will fall and unemployment rise even under share contracts. In simple language, because the MCL is less than the MRP of labor, a share contract permits firms to adjust employment in response to a cyclically varying supply price of labor when no response would be forthcoming under a wage contract.

Figures II and III illustrate this mechanism. Figure II represents a simplified version of Figure I for a wage firm. A contraction of aggregate demand is shown as a leftward shift of the MRP curve. With wages inflexibility stuck at $w$, the profit-maximizing firm will reduce employment from $E$ to $E'$ in Figure II. An economy-wide

![Diagram](image)

**Figure II**

Employment Reaction in a Keynesian Wage Economy

This figure shows the reaction of employment to a demand shock in a wage economy characterized by sticky wages. A recession is represented as a leftward shift in the marginal revenue product of labor, from MRP to MRP'. Because of sticky wages, the wage rate after the shock ($w'$) is equal to the wage rate before the shock ($w$). The lower employment forces the supply price of labor from $SP$ to $SP'$. But firms cannot take advantage of the fact that the supply price of labor has fallen, so employment falls from $E$ to $E'$ in the wage economy.
FIGURE III
Employment Reaction in a Keynesian Share Economy

Here we see the reaction of employment to a demand shock in a share economy characterized by sticky share contracts. As in Figure II, a recession is represented as a leftward shift in the marginal revenue product of labor, from $MRP$ to $MRP'$; again, the lower employment forces the supply price of labor from $SP$ to $SP'$. In a share economy, employment falls less, to point $S$ rather than to point $W$, in a wage economy. At $S$ the $MRP'$ equals $MCL$. Hence the decline in employment in the share economy is less than the decline in a wage economy as long as the supply price of labor falls.

recession will reduce the supply price of labor, lowering the supply price of labor from $SP$ to $SP'$, but since wages are inflexible under a wage contract, the firm cannot exploit the lower supply of price of labor.

Figure III shows how a share contract may allow firms to profit from the lower supply price of labor. This figure is identical to that in Figure II except that a share contract has been substituted for the wage contract. As the supply price of labor falls in recessions, the constraint in equation (8) is loosened, and the share firm can expand employment. In the case shown in Figure III, employment declines from $E$ to $E'$ in a share economy (as compared with declining from $E$ to $E'$ in a wage economy). We reiterate that the analysis of disequilibrium labor markets shown in Figures II and III does not represent Weitzman's formal analysis analyzed in Section
II above; rather they are in the spirit of his verbal and intuitive discussion.

A number of points can be clarified with the help of Figure III. First, the share mechanism can only improve outcomes to the extent that the supply price of labor falls relative to the market wage. If there is no significant fall in the supply price, say because labor supply is elastic in the short run, or if wages clear labor markets, then the "vacuum cleaner" of the share system has no sucking power. Similarly, share compensation should be equivalent to wage compensation in non-unionized markets, because when the supply price of labor falls, non-union firms can unilaterally reduce compensation in either case should that be profitable. Hence, the argument for the superiority of the share regime would apply only where forces such as long-term contractual elements lead to sticky compensation arrangements. This difference suggests looking at the behavioral differences of unionized and non-unionized industries to test the empirical validity of the Weitzman view.

Note next that the difference in employment response between the share and wage firms will be larger as the elasticity of the marginal revenue product of labor schedule with respect to employment is high. Similarly, if the difference between ACL and MCL is small, the differences in the employment response of the wage and share systems to shocks is small. As a practical matter, the share of "share-type income" would be quite small for most profit-sharing plans, so the impact of such regimes on employment would probably be modest as well.

Finally, and most important, does a share contract render the economy "recession proof" as Weitzman claims? Under the interpretation given here, clearly not. At the long-run equilibrium at point A in Figure III, firms would not willingly accept additional workers at the going compensation package. A small decline in the demand for the firm's output (as represented by a shift in the firm's MRP) with no decline in the supply price of labor will lead to the same employment response in wage and share firms. A small recession will reduce demand, shifting the MRP curve slightly, while it reduces the supply price of labor slightly. If each response is more or less proportional to the size of the demand shock, small recessions will be reduced versions of Figure III.

Putting this point differently, in a Keynesian-style disequilibrium world, share systems may attenuate unemployment in recessions relative to wage systems, but, contrary to Weitzman's claim, share contracts will not make capitalism recession-proof. Study of
Figure III will show that for the Weitzman proposition of no employment reduction to be valid, two conditions must hold: the supply price of labor must fall very sharply in recessions, and the MCL must be very far below the ACL. These are clearly empirical propositions, and Weitzman has no empirical support for them. However, the scant evidence to date does not support the validity of these conditions in Japan, which is the model to which Weitzman points in defending the share economy.\footnote{Weitzman argues that the Japanese “bonus system” functions like a share system and may explain the low unemployment rate in Japan (see Weitzman [1986] and [1985b]). Analysis by Peck [1986] shows that bonuses in Japan are paid in terms of months of base pay and are therefore equivalent to wages. Data in Weitzman [1986] bear out the contention that the Japanese bonus system does not respond like a profit-sharing system. From 1979 to 1981, Japanese GNP growth decelerated sharply, yet the bonus as a share of wages increased by 0.022 percent per annum over this period. Nordhaus [1986] presents data showing that a hypothetical profit-sharing scheme for the United States would display wage growth and a marginal cost of labor virtually identical to the current American compensation system.}

What can we then conclude about the functioning of a share system in a disequilibrium macroeconomic framework? On the one hand, firms will not display excess demand for labor in equilibrium, and the economy is not completely resistant to small demand shocks. On the other hand, the response of employment to demand shocks might be damped by share elements, although the empirical significance of the damped response is difficult to assess.

IV. IMPACT ON THE NATURAL RATE OF UNEMPLOYMENT

Finally, let us examine Weitzman’s major contention, that the share economy will be immune to the disease of stagflation. In conventional terminology, this claim means that the natural rate of unemployment in a share economy will be significantly lower than that in a wage economy. In a wage economy the level of unemployment where wage and price inflation are stable is the natural rate of unemployment, or the “wage natural rate” for short. In a share economy inflation would tend to stabilize where the share of labor was stable. Call the level of overall unemployment at which shares stabilize the “share natural rate.” Why does Weitzman claim that the share natural rate would be significantly below the wage natural rate? The claim rests critically on the excess-demand-for-labor proposition. If a share system has perpetual vacancies, then the aggregate share of labor might stabilize where labor markets would tilt toward lower levels of unemployment compared with a wage economy. The tilt toward vacancies would appear to lower the
natural rate of unemployment in a share economy. The argument rests, therefore, on the excess-demand-for-labor proposition.  

The flaw in the argument is exactly the same as that discussed in Section II above. If the fact firms cannot lower compensation below the prevailing level in the short run, then there is no excess demand for labor in the short run, and the macroeconomic equilibrium for a share economy would be exactly the same as for the wage economy.

If Weitzman’s argument for a lower natural rate is defective in an equilibrium setting, can it be rescued in a disequilibrium framework? It can be salvaged if the employment response of firms to aggregate demand shocks is attenuated in a share system. How attenuated the response will be cannot be determined in general, but, as the last section showed, the potential change in the natural rate will depend upon the parameters of the share function and upon the shape of the MRP schedule. I suspect that the change in the natural rate would be negligibly small for most realistic share systems, but clearly this is an empirical issue.

The central proposition, however, cannot be rescued. Because the argument for the lower share natural rate rests on the excess-demand-for-labor proposition, as was shown above, the argument fails when that proposition fails. Indeed, this conclusion should be intuitively obvious. We could hardly expect one drop of share compensation to miraculously cure the disease of stagflation, yet this is Weitzman’s claim, for the degree of sharing nowhere enters his argument.

V. SUMMARY AND CONCLUSIONS

This article has analyzed Weitzman’s argument for the share economy. A share economy is one in which the marginal cost of labor is less than the average cost. Weitzman’s argument for the

12 Weitzman’s arguments for a lower natural rate are laid out in Weitzman [1985a, 1986, 1987]. The most explicit discussion is in Weitzman [1985], where he sets out a simple algebraic example of how the share firm would behave in the short run. He notes that, in the short run (using our notation of Section II) the firm’s profits are given by \( \pi(L) = (1 - s)R(L) - cL \) (see his equation (51)). He then assumes, “If unlimited amounts of labor are available to be hired on the share contract . . . , the firm will choose to hire workers to the point where \( R(L) = w . . . \)” (again substituting our notation for his). The analysis in this quotation is the same as the one discussed in Section II. Weitzman assumes that firms behave in the short run by ignoring the long-run compensation constraint. A second analysis, employing an “insider vs. outsider” derivation in Weitzman [1987], contends that the natural rate would be lower in a wage share than in a share economy. The critical assumption, again, is that unlimited amounts of labor are available at the \( MCL \), which assumption is seen in equation (45) of Weitzman [1987].
superiority of the share economy rests on a crucial contention that a share economy displays excess demand for labor—a state in which firms desire to hire more labor than they currently employ. Firms will therefore respond to recessionary shocks by retaining their employees rather than laying them off. Hence, Weitzman claims, the share economy will be recession-proof, or resistant to shocks to aggregate demand.

The argument is based on standard neoclassical theory of labor markets, that is, on a model in which compensation (in either a share or wage contract) is set at levels that clear labor markets. Weitzman's analysis of the short-run behavior of a share economy omits a detailed specification of labor supply. This note examines a number of models explicitly incorporating the missing labor-supply dynamics. When labor-supply constraints are incorporated, the excess-demand-for-labor property evaporates.

Although Weitzman's analysis is based on neoclassical reasoning, his verbal discussion relies on a view in which labor markets are generally in disequilibrium. In a disequilibrium world share firms may reduce employment slightly less than wage firms when aggregate demand declines, although the crucial excess-demand-for-labor proposition does not hold. Firms would still desire to lay off workers in recessions.

Weitzman's proposal for the share economy is surely one of the most provocative of recent years, and further work is required to test its theoretical validity and empirical significance. The tentative assessment drawn here is that changing to share contracts will produce no sea change in the performance of a capitalist economy.

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