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THE MACROECONOMICS OF WAGE EARNERS' INVESTMENT
FUNDS

Hans Brems, Professor of Economics

#458

College of Commerce and Business Administration
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FACULTY WORKING PAPERS

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Summary:

A third of a century after Keynes' perception of it, the idea of a wage earners' investment fund is re-emerging and being practiced. To a wage earners' investment fund, employers would contribute a fraction of either their wage bill (an investment wage) or their profits bill (profit sharing). Beginning with a brief description of the concept, the plans, the bills, and the statutes, the paper proceeds to examine the effects of such a fund upon wealth and income distribution, the propensity to save, and the inducement to invest.

LOUISIANA WORKING PAPERS

Department of Economics and Business Administration

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THE ECONOMIC ZONES OF WAGNER INVESTMENT

James H. Williams, Professor of Economics

1977

Summary:

The study of a country's economic zones is a complex task. It involves the identification of areas of high economic activity and the determination of the factors that influence their location. This paper examines the economic zones of Louisiana and discusses the implications for regional development. The study is based on a detailed analysis of economic data and a review of the literature on economic zones. The results show that the economic zones of Louisiana are concentrated in the coastal and river valley areas. This is due to a number of factors, including the presence of major transportation routes and a long history of economic activity in these areas. The study also discusses the implications of these findings for regional development and policy-making.

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THE MACROECONOMICS OF WAGE EARNERS' INVESTMENT FUNDS

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A third of a century after Keynes' perception of it, the idea of a wage earners' investment fund is re-emerging and being practiced. To a wage earners' investment fund, employers would contribute a fraction of either their wage bill (an investment wage) or their profits bill (profit sharing). Beginning with a brief description of the concept, the plans, the bills, and the statutes, the paper proceeds to examine the effects of such a fund upon wealth and income distribution, the propensity to save, and the inducement to invest.

I. INTRODUCTION

1. A Wage Earners' Investment Fund

The basic idea of a wage earners' investment fund is this. By law or collective agreement, or of their own free will--perhaps spurred by a tax incentive--employers would contribute corporate stock to a fund owned by employees. The employers would contribute a fraction of either their wage

bill or their profits bill to the fund. Call the former contribution an investment wage, the latter profit sharing. The fund would belong to the employees and would issue nonnegotiable fund certificates to them. A specified number of years after its issue a fund certificate would become redeemable in cash at a price which would include the share of that certificate in the original contribution to the fund and all capital gains and dividends made on that contribution during the lifetime of the certificate.

The fund would be serving the dual purpose of giving labor a share of, first, the capital gains accruing to stockholders in an inflationary economy and, second, the co-determination rights inherent in stock ownership.

The present paper will study the macroeconomic effects of such a fund upon wealth and income distribution, the propensity to save, and the inducement to invest. But first a minimum¹ of background must be provided.

2. The Beginnings

What Keynes [16] proposed in 1940 was a compulsory investment wage. With the purpose of paring down consumer demand to wartime output of consumers' goods, he proposed a "deferred-pay" scheme calling for £550 million in annual compulsory saving. The complete scheme, including "the accumulation of working-class wealth under working-class control," would embody, Keynes said in his preface, "an advance towards economic equality greater than any which we have made in recent times." Keynes' proposal was adopted strictly as a wartime measure and to less than a quarter of his suggested sum [20].

Compulsory profit sharing was first proposed by Gleitze [12]. Employers should not be deprived of the use of any of their capital, he said. Hence, in the form of corporate stock employers would contribute compulsorily a fraction of their profits bill to a system of funds. The funds would be competing national funds or would be confined to a region or an industry. The idea of a single national fund was categorically rejected. The Gleitze Plan was endorsed by the German federation of labor unions [9] in 1961.

3. The Bills

In 1973 a bill [1] proposing a compulsory investment wage failed to pass in the Danish parliament. The bill was a modified proposal by the Danish federation of trade unions [18]. Both proposed a single national fund. Primarily in the form of corporate stock, all employers would contribute five per cent of their wage bill to the fund. The bill proposed a seven-year, the unions had proposed a five-year redemption period.

In 1974 the West German coalition government published a draft bill [10] requiring large employers to contribute, primarily in the form of corporate stock, up to 10 per cent of their profits bill to a system of multi-firm funds confined to neither an industry nor a region, among which the individual wage earner would be free to choose. A seven-year redemption period was proposed. No actual bill has been put before parliament as yet.

In 1976 the Dutch government published a draft bill requiring large employers to contribute, primarily in the form of corporate stock, up to 20 per cent of their profits bill--after normal return on their own capital--to a single national fund. What would be redeemed would be non-pooled as well

as pooled contributions. An employee's share of his own employer's contribution would be redeemable after 7 to 10 years; his share of the contributions made by all employers would be redeemable at retirement age.

In the United States the Javits-Humphrey Employee Stock Ownership Fund bill of 1976 [15], 60-62, proposed single-firm wage earners' investment funds created by collective bargaining. The funds would be placed in voting stock of the employer, in non-employer stock, and in fixed-income securities. The portfolio of the fund must be diversified. An employee could withdraw his share after only three years.

4. The Statutes

Since 1961 West Germany has had a voluntary investment wage subsidized by the government, now so appealing that 2/3 of West German wage earners are participating. Single-firm funds are set up by collective bargaining, and the employer may contribute stock, bonds, or cash to it as agreed. With the employer's consent the contribution may be placed in employer stock or bonds, but there is an extra tax inducement to place them in savings or commercial banks. However placed, contributions are frozen for seven years.

Since 1967 France has had a similar system of single-firm funds based on compulsory profit sharing. Originally there was full tax credit for employer contributions, but 1973 legislation reduced the tax credit to 3/4 for the first three years and then to 1/2. All corporations with more than 100 employees must contribute. In 1973 9,300 corporations and more than four million wage earners were covered by the system. The contributions may be

placed in employer stock or bonds or in the stock market as agreed. However placed, contributions are frozen for five years.

United States statutes offer preferential tax treatment to five specific forms of single-firm funds, i. e., stock-bonus plans, ESOPS, profit-sharing plans, thrift plans, and pension plans. The preference has three dimensions. First, the employer obtains income-tax deduction for his contribution to the fund. Second, the fund obtains tax-free treatment of its earnings. Third, the employees obtain deferment of personal income tax on the employer's contribution to the plan.

The least widespread but most widely debated plan is the so-called employee stock-ownership plan (ESOP), designed and advocated by Mr. Louis O. Kelso [28], 132-488. An ESOP is a wage earners' investment fund set up by a parent firm with the dual purpose of establishing employee ownership of the stock of the employer and facilitating his borrowing. An ESOP works as follows.

At the beginning of the year the parent firm sets up an ESOP. ESOP borrows, say, \$100 from a bank for one year at an interest rate of 10 per cent per annum. The parent firm then issues \$100 worth of stock. With its proceeds ESOP buys the stock from the parent firm. With its proceeds the parent firm builds a \$100 physical asset.

At the end of the year the parent firm gives ESOP \$100 in cash. If placed in employer stock such a contribution to an ESOP is fully deductible, hence saves a tax payment of \$48 and costs the parent firm merely \$52. And the contribution is placed in employer stock: With its proceeds ESOP pays back its loan and now owns employer stock free of lien. In addition, ESOP

must pay \$10 interest, always deductible and hence saving a tax payment of \$4.80 and costing the parent firm merely \$5.20.

In this way, at the end of the year the parent firm has acquired a \$100 physical asset at an amortization cost of \$52 and an interest cost of \$5.20 and has issued new stock at \$100.

In addition to the tax deductibility mentioned, the 1975 Tax Reduction Act added the further temporary incentive of tax credit for contributions to an ESOP amounting to a maximum of one per cent of investment in capital equipment by the parent firm. The 1976 Tax Reform Act extended that temporary incentive for another four years.

5. The Literature

The literature is long on pleas and proposals but short on analysis. Western European advocates of wage earners' investment funds like Bergström [2], Cars [7], Landsorganisationen [18], and Meidner [19] have offered well-reasoned pleas. Serious economic analysis is offered by the Danish council of economic advisers (Det økonomiske Råd) [8] and in the applied parts of Krelle, Schunck and Siebke [17], 87-491. German theoretical work on the redistribution of wealth seems to ignore fund accumulation, cf. Jaeger [14], the theoretical part of Krelle, Schunck and Siebke [17], 52-86, Mückl [21], and Ramser [23].

In the United States Kelso [28], 132-488 and elsewhere, has offered his plea but no serious economic analysis. A mass of opinions, evidence, and analysis was offered by the U. S. Congressional hearings [28] and the resulting staff report [15].

II. NOTATION

We are now ready to begin our analysis of the macroeconomic effects of a wage earners' investment fund. A clearly defined notation will contribute to the precision of such an analysis.

a \equiv employers' contribution to fund as a fraction of wage bill

α, β \equiv exponents of a Cobb-Douglas production function

b \equiv employers' contribution to fund as a fraction of profits bill

e \equiv Euler's number, the base of natural logarithms

ϕ \equiv size of wage earners' investment fund

g_v \equiv proportionate rate of growth of variable $v \equiv P, W, \text{ or } Z$

r \equiv internal rate of return

κ \equiv physical marginal productivity of capital stock

P \equiv price of good

ρ \equiv redemption period

S \equiv physical capital stock

W \equiv wage bill including employers' contribution to fund

X_t \equiv physical output

Y \equiv disposable money income

Z \equiv profits bill including employers' contribution to fund

Time coordinates are t and τ .

III. ACCUMULATION OF THE FUND

In the form of corporate stock let all employers contribute compulsorily either the fraction a of their wage bill W or the fraction b of their profits bill Z to a wage earners' investment fund. In a growing economy the fund will be growing for two reasons. First, what is being put into it is growing: The wage bill or the profits bill themselves are growing at the proportionate rates g_W and g_Z , respectively. Second, once put in, the contributions will earn a return. Assume wage earners to have the same motivation and skill as capitalist-entrepreneurs hence, like the latter, to be making the internal rate of return i on the money value of the capital stock they own, i. e., the wage earners' investment fund. Let the earnings of the fund be compounded continuously, and let all wage earners present their fund certificates for redemption as soon as the latter become redeemable. Redemption at time τ is the accumulated value at time τ of the contribution made at time $\tau - \rho$, where ρ is the redemption period. The size of the fund at time τ is the accumulated value at time τ of all contributions made between $t = \tau - \rho$ and $t = \tau$. Expressed in terms of the wage or profits bill at time τ , that accumulated value is then for the investment wage and profit sharing, respectively:

$$(1a) \quad \Phi(\tau) = \int_{\tau - \rho}^{\tau} e^{(i - g_W)(\tau - t)} aW(t) dt$$

$$(1b) \quad \phi(\tau) = \int_{\tau - \rho}^{\tau} e^{(1 - g_Z)(\tau - t)} b_Z(\tau) dt$$

IV. LABOR CONTROL OF CORPORATE INDUSTRY?

Could a wage earners' investment fund as expressed by (1a) and (1b) turn firms into labor-managed Vanek-like [29] or Bergström-like [2] ones maximizing income per employee? Whether or not it would, will depend upon two things. First, size: Would the fund become large enough to establish labor control of corporate industry? Second, motivation: Even if it would, would the fund behave differently than any other stockholder?

1. Size of Fund

The present paper uses mathematics merely as an aid in formulating concepts, and Eqs. (1a) and (1b) formulate the concept of a fund in terms of the wage or profits bill, respectively. To express the fund as a numerical fraction of physical capital stock would require operational use of mathematics: Mathematics would have to be used to specify and solve a self-contained model permitting computer simulation. In earlier papers [5], [6] the writer has done so. His general framework was a conventional one-good neoclassical steady-state growth model with immortal physical capital stock in a Cobb-Douglas production function, assuming a labor exponent $\alpha = 3/4$, a capital-stock exponent $\beta = 1/4$, a propensity to consume national disposable real

income of $7/8$, a zero growth rate of the labor force, and a technological progress of 3 per cent per annum. Within this general framework, a 37-equation model of a wage earners' investment fund was built. For a redemption period $\rho = 8$ years, an investment wage with a contribution fraction of $a = 1/20$ would generate a fund equalling 0.100 of physical capital stock. Profit sharing with a contribution fraction of $b = 1/10$ would generate a fund equalling 0.069 of physical capital stock. Such a redemption period and such contribution fractions are on the high side of anything proposed or enacted, see Sec. I, 3-4 above. Would such ambitious funds be large enough to establish labor control of corporate industry?

Well, how large is corporate stock as a fraction of physical capital stock owned by business? In the United States corporate stock is about $1/4$ of physical capital stock owned by corporations.² But the very existence of a wage earners' investment fund to which corporations would contribute stock would force them away from self-financing towards stock-issue financing, as we shall see in Sec. VII, 1 below. Consequently, under a widely adopted fund the fraction would be higher than $1/4$. Furthermore, not all business is corporate. In the United States corporations own perhaps between $2/3$ and $3/4$ of all physical capital stock owned by business; official statistics³ do not tell us. If so, corporate stock would be between $1/4 \times 2/3 = 1/6$ and $1/3 \times 3/4 = 1/4$ of physical capital stock owned by business.⁴

Under United States conditions, then, centralized funds between 0.069 and 0.100 of physical capital stock would be large enough to establish some degree of labor control of corporate industry. In less corporate economies

higher degrees of labor control might be established: The Danish bill [1] anticipated a national fund owning 35 per cent of all Danish corporate stock by 1986.

2. Motivation of Fund

Would a wage earners' investment fund be like any other stockholder, always on the lookout for high-return stock, always trying to get rid of low-return stock?

It might well be. Existing and proposed wage earners' investment funds are often entitled to buy and sell securities as they see fit. First, return maximization may be explicitly prescribed. The Danish union proposal [18] and bill [1] both specifically ordered an "active" placement of the fund and defined "active" as guaranteeing, first, a share of the capital gains and, second, a maximum dividend. Second, even when not explicitly prescribed return maximization may be likely, especially if a number of competing, decentralized funds were set up among which the individual wage earner would be free to choose--as he would in the German coalition government proposal [10].

But then a wage earners' investment fund might not be like any other stockholder: It might occasionally try to protect jobs in less profitable firms. Here a conflict may exist between the interests of a wage earner qua owner of the fund and qua holder of a particular job.

V. GENERATION OF DISPOSABLE INCOME

1. Wage Earners

All wage earners were assumed to present their fund certificates for redemption as soon as the latter become redeemable. Redemption at time τ is the accumulated value at time τ of the contribution made at time $\tau - \rho$, where ρ is the redemption period. Under an investment wage labor's disposable income at time τ is the wage bill minus contribution plus redemption at that time:

$$\begin{aligned}
 (2a) \quad Y_1(\tau) &\equiv W(\tau) - aW(\tau) + e^{(1 - g_W)\rho} aW(\tau) \\
 &= [1 + a[e^{(1 - g_W)\rho} - 1]]W(\tau)
 \end{aligned}$$

Under the realistic assumption that $1 - g_W > 0$, labor's disposable income is higher under an investment wage (where $a > 0$) than in the absence of one (where $a = 0$), for e and ρ are both positive.

Under profit sharing labor's disposable income is wage bill plus redemption:

$$(2b) \quad Y_1(\tau) \equiv W(\tau) + e^{(1 - g_Z)\rho} bZ(\tau)$$

If labor's disposable income were higher under an investment wage than in the absence of one, it will be higher still under profit sharing: If $g_W = g_Z$ and $aW(\tau) = bZ(\tau)$ then (2b) would exceed (2a) by the term $aW(\tau)$.

2. Capitalist-Entrepreneurs

The capitalist-entrepreneurs are making the internal rate of return i on the money value of the capital stock they own, i. e., all capital stock minus the wage earners' investment fund. In a neoclassical one-good inflationary world of immortal capital stock, the internal rate of return i includes profits made at the rate of the physical marginal productivity of capital κ plus capital gains made at the rate of inflation g_P :

$$(3) \quad i \equiv \kappa + g_P$$

Let us follow convention⁵ and exclude capital gains from the disposable income of capitalist-entrepreneurs. Under an investment wage their disposable income is, then, their profits on all capital stock minus the fund:

$$(4a) \quad Y_2 \equiv \kappa(PS - \Phi)$$

(4a) is lower under an investment wage (where $\Phi > 0$) than in the absence of one (where $\Phi = 0$). Under profit sharing the disposable income of capitalist-entrepreneurs is their profits on all capital stock minus the fund minus their contribution to the fund:

$$(4b) \quad Y_2 \equiv \kappa(PS - \Phi) - bZ$$

If capitalist-entrepreneurs' disposable income were lower under an investment wage than in the absence of one, it will be lower still under profit sharing: If $g_W = g_Z$ and $aW(\tau) = bZ(\tau)$ then (1a) would equal (1b), and (4b) would fall short of (4a) by the term bZ .

We conclude that both the investment wage and profit sharing redistribute disposable income in labor's favor, but the former less so than the latter.

3. Two Biases

The definitions of disposable income just adopted have two biases built into them, both understating labor's thriftiness.

The first bias is the assumption that all wage earners present their fund certificates for redemption as soon as the latter become redeemable. Will they? Evidence to the effect that they will not is available from fairly long German experience with voluntary schemes but is not, as Robinson [24], 126-127, points out, necessarily indicative of behavior under compulsory ones. Keynes [16], 47 would have questioned the assumption that all wage earners present their fund certificates as soon as the latter become redeemable:

The argument is, I suppose, that savings deferred in this way are more likely than normal savings to be spent by their owners as soon as they are free to do so. How far this will prove to be true in fact, I am not sure. It may

be that the blocked deposits will be instrumental in spreading the habit of small savings more widely...

The second bias is that while gains were excluded from the disposable income of capitalist-entrepreneurs--an exclusion well anchored in convention--they were included in the redemption of fund certificates, and redemption thus defined was a component part of labor's disposable income.

Both biases represent extremes: Wage earners can redeem after but never before the expiration of the redemption period. Of the original contribution and the dividends and capital gains made on it, wage earners could consider as disposable income less but never more than 100 per cent of it. Both biases, then, may understate the thriftiness of wage earners: The wage earner might well be more reluctant to redeem and more reluctant to spend what is redeemed.

How reluctant could well depend upon the particular design of the wage earners' investment fund. A large centralized fund like the proposed Danish one might appear remote and indirect to the wage earner. Unable to identify with it, he might treat its disbursements as he would any other transfer income. By contrast, the German coalition government proposal visualized a number of funds among which the wage earner could choose freely. Such freedom of choice would make the fund look less remote and more trustworthy, hence the wage earner might be more reluctant to redeem.

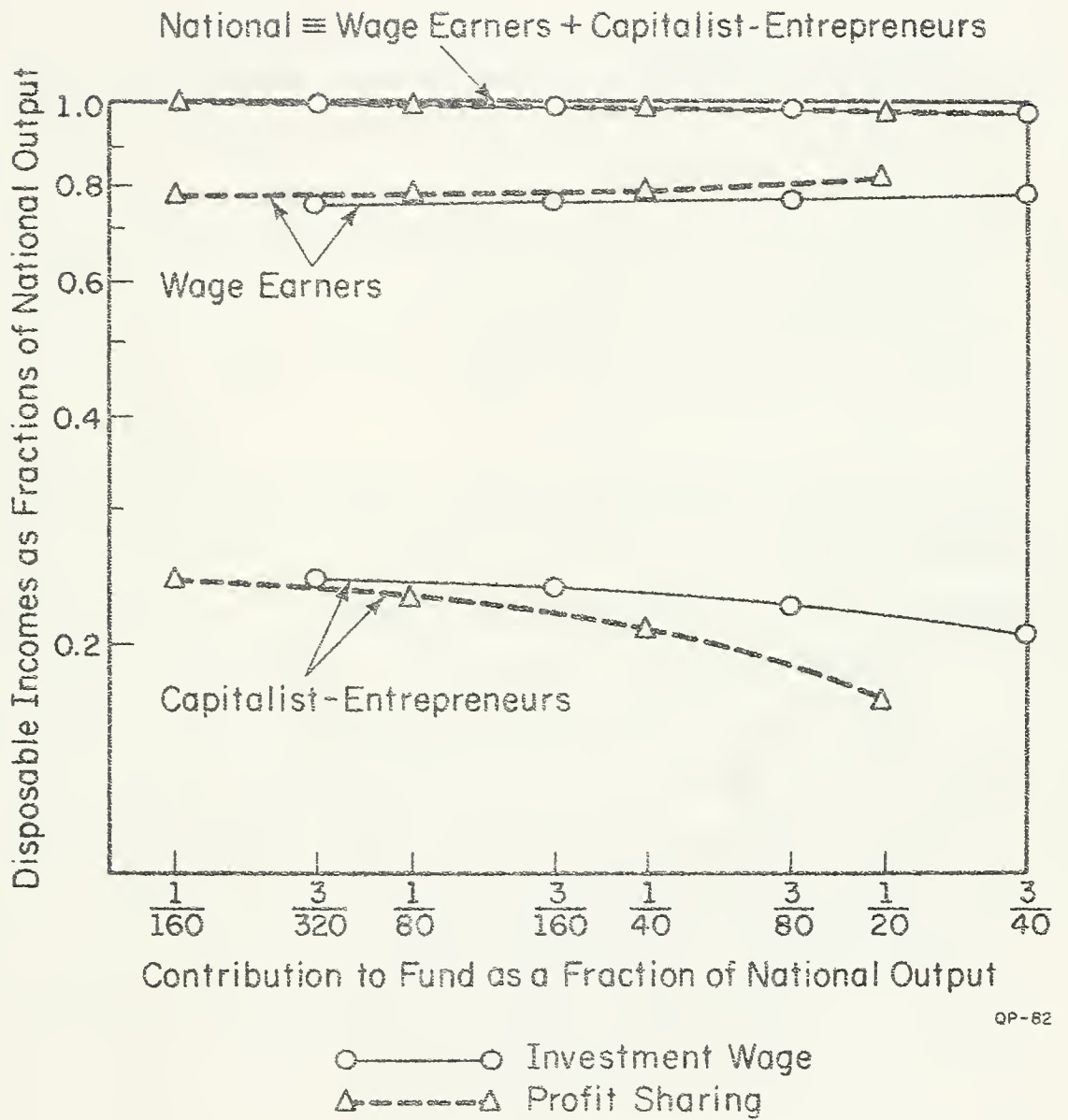
4. Disposable-Income Generation under European Fund Schemes

Both the investment wage and profit sharing redistributed disposable income in labor's favor. But what do they do to national disposable income? That effect would be crucial to the propensity to save national output.

The simple algebra of (2a), (2b), (4a), and (4b) will not answer that question, only computer simulation will. The results of such simulation [5], [6] with a redemption period of $\rho = 8$ years are summarized graphically in Figure 1.

Here the horizontal axis shows the contribution to the fund as a fraction of national output. Under a linearly homogeneous Cobb-Douglas production function with labor and capital exponents of α and β , respectively, the wage bill W is the fraction α and the profits bill Z the fraction β of national output PX . Consequently, an investment wage will contribute the fraction αa and profit sharing the fraction βb of national output PX . The vertical axis of Figure 1 shows national disposable income, labor's disposable income, and the capitalist-entrepreneurs' disposable income, all three as fractions of national output.

Two results stand out in Figure 1. First, an investment wage and profit sharing contributing the same fractions $\alpha a = \beta b$ of national output reduce the national disposable-income fraction of national output identically. Second, Figure 1 confirms our algebra: Both the investment wage and profit sharing redistribute disposable income in labor's favor, but the former less so than the latter.



QP-82

FIGURE 1

5. Disposable-Income Generation under American ESOPs

How much of the previous section would apply to the American employee stock-ownership plans (ESOP)?

ESOP calls for individual redemption only upon retirement of the employee. By Western European standards this is a long average redemption period. ESOP's tax credit is limited to one per cent of the investment of the parent corporation. By Western European standards this is a very small contribution fraction. If ESOPs were widely adopted, the long redemption period would tend to reduce substantially the national disposable-income fraction of national output but the effect would be weakened by the small contribution fraction.

A fundamental feature of ESOP is that contributions entitle the parent corporation to an equivalent tax credit--hence cost the corporation nothing. So employees benefit at the expense of government rather than at the expense of the capitalist-entrepreneurs. But if widely adopted, any system so heavily dependent upon a tax incentive will necessitate fiscal reform. Either the reform recovers lost revenue--and new taxes mean new distortions--or it sacrifices government services hitherto deemed desirable. The full effects of such fiscal reform, both upon the disposable-income fraction of national output and upon after-tax income distribution, would be part and parcel of the macroeconomic effects of a widely adopted ESOP.

VI. THE PROPENSITY TO SAVE NATIONAL OUTPUT

1. A Third Bias

A third bias--this one overstating labor's thriftiness--would be to assume that the propensity to consume disposable real income were the same for wage earners and capitalist-entrepreneurs. Since--as we just saw--a wage earners' investment fund will reduce the national disposable-income fraction of national output, it would then unequivocally raise the propensity to save national output.

2. Different Propensities to Consume Disposable Real Income

What if the wage earners have a substantially higher propensity to consume disposable real income than do capitalist-entrepreneurs? Then redistributing income from the latter to the former could conceivably overwhelm the effect of reducing the national disposable-income fraction of national output. The net effect might then be a fall in the propensity to save national output. The fall is less likely to result under an investment wage with its weaker redistributive effect than under profit sharing.

But if we remove our third bias--overstating labor's thriftiness--shouldn't we remove our first two biases--understating labor's thriftiness? If we do, the national disposable-income fraction of national output is further reduced, hence even less likely to be overwhelmed.

Forsyth [11], 66 and 72, merely expected a wage earners' investment fund to prevent a drop, but never mentioned a rise, in the propensity to

save national output. Det Økonomiske Råd [8], 43 and 49, did expect fund accumulation to raise substantially the propensity to save national output.

VII. THE INDUCEMENT TO INVEST

If not matched by an increase in the inducement to invest, an increase in the propensity to save may well generate lower output and employment. Would a wage earners' investment fund affect the inducement to invest?

1. Stock Issue, Borrowed Capital, and Self-Financing

What is the price of capital to the firm? To be marketable, corporate stock must offer a prospect of dividends and capital gain. To the firm, then, offering such a prospect is the price to be paid for capital raised by issuing stock. Interest is the price to be paid for borrowed capital. Neither price has to be paid for self-financing, hence the firm's preference for the latter. The riskier the investment project considered, the stronger the preference.

The fact that capital raised by issuing stock, by borrowing, and by self-financing carry different price tags is crucial under a wage earners' investment fund to which firms contribute in the form of corporate stock. To be sure, no cash is contributed, so the cash equivalent of the contribution is still available for financing--in accordance with Gleitze's [12] leading idea. But the contribution has generated new stock. Perhaps we should visualize the contribution as follows: The firm would contribute

cash to the fund, then issue new stock and sell it to the fund in order to retrieve the lost cash. The firm would end up with the cash and the fund with the stock, as they should. But it would have become more transparent that a wage earners' investment fund really forces the firm to give up some of its self-financing and to resort to issuing stock. Suppose it is true that the riskier the investment project considered, the stronger is the firm's preference for self-financing. By forcing the firm to give up self-financing and resort to issuing stock, a wage earners' investment fund would then be inducing the firm to substitute less risky for more risky investment projects. This could decelerate technological progress.

2. A Wage Earners' Investment Fund as a Stockholder

But would a wage earners' investment fund really be like any other stockholder unwilling to hold stock not offering a prospect of dividends and capital gains? As we saw in Sec. IV, 2 above it may well be. But whatever the motivation of the fund may be, the fund will eventually have to sell stock to meet its redemption obligations. Stock originally contributed to the fund will then fall into the hands of ordinary stockholders unwilling to hold it unless it offers a prospect of dividends and capital gains. Should they sell it its market value would suffer, jeopardizing the marketability of future stock issues by the firm.

3. Conclusion

Little hope remains that a wage earners' investment fund in itself would raise the inducement to invest--to match its raising the propensity

to save. Whatever new inducement to invest will be required will have to be provided by government monetary and fiscal policy. A clear inducement to invest might seem to be offered by an American ESOP. ESOP reduces the cost of capital to the parent firm: In our numerical example, the parent firm acquired a \$100 physical asset at an amortization cost of \$52 and an interest cost of \$5.20. But ESOP reduces the cost of capital at government expense, hence is part and parcel of government fiscal policy.

VIII. CONCLUSIONS

We have examined some macroeconomic effects of a wage earners' investment fund. Six tentative conclusions are suggested. First, the fund redistributes wealth in labor's favor, perhaps enough to establish some degree of labor control of corporate industry. Second, the fund redistributes disposable income in labor's favor. Third, the investment wage has a weaker redistributive effect than has profit sharing. Fourth, the fund reduces the national disposable-income fraction of national output. Fifth, the fund therefore may raise the propensity to save national output. Sixth, by narrowing the firm's opportunity for self-financing the fund may induce it to substitute less risky for more risky investment projects.

F O O T N O T E S

*The author is professor of economics at the University of Illinois at Urbana-Champaign. For discussions of the subject in seminars offered at Copenhagen, Cornell, Groningen, Illinois, Lund, Mannheim, Rotterdam, and the Deutsches Überseeinstitut in Hamburg over the period 1974-77, the author is indebted to students and faculty alike, particularly to Walter Galenson, Jens Lübbert, Jürg Niehans, Wouter Sidré, P. J. Verdoorn, and the late Frits J. de Jong. The author has drawn freely on his testimony before the Joint Economic Committee of the U. S. Congress [28], 521-538, 551-567.

¹More detailed accounts of plans, bills and statutes are offered by Brems [4], O. E. C. D. [22], and Robinson [24].

²U. S. Bureau of the Census [27], 479. For our purpose, the denominator is overstated by including land and intangible assets.

³U. S. Bureau of the Census [27], 483. We don't know what (1) the share held by corporations smaller than the 200 largest, (2) by nonmanufacturing corporations, or what (3) the shares of physical assets alone would be.

⁴How large a fraction of actual physical capital stock belongs to business? In the United States, business nonresidential physical reproducible assets are merely 36 per cent of all physical reproducible assets; govern-

ment, institutions, consumer durables, and residential structures account for the remaining 64 per cent, see U. S. Bureau of Economic Analysis [26], Series A 129-A 154, 202-207, quoting Goldsmith [13] and Tice and Duff [25].

⁵Bhatia [3] found a marginal propensity to consume capital gains of 0.06--highly significant statistically but less than one-tenth of a marginal propensity to consume income of 0.70 to 0.80.

R E F E R E N C E S

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1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It highlights the importance of using reliable sources and ensuring the accuracy of the information gathered.

3. The third part of the document focuses on the interpretation and analysis of the collected data. It discusses the various statistical tools and techniques used to identify trends and patterns in the data.

4. The fourth part of the document provides a detailed overview of the findings and conclusions drawn from the analysis. It discusses the implications of the results and offers recommendations for future research and action.

5. The fifth part of the document discusses the limitations of the study and the potential sources of error. It acknowledges the challenges faced during the data collection and analysis process and offers suggestions for improving the quality of the research.

6. The sixth part of the document provides a summary of the key findings and conclusions. It highlights the most significant results and offers a final assessment of the overall impact of the study.

7. The seventh part of the document discusses the broader implications of the research and its contribution to the field. It highlights the potential for future research and the importance of continued exploration in this area.

8. The eighth part of the document provides a final summary and conclusion. It reiterates the key findings and offers a final assessment of the overall impact of the study.

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PHILOSOPHY DEPARTMENT

PHILOSOPHY 101

LECTURE NOTES

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TOPIC

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