



Cornell University  
ILR School

Cornell University ILR School  
**DigitalCommons@ILR**

---

Research Studies and Reports

ILR Collection

---

11-1986

## Interactions Between Trade Policy and Labor Market Policy and Their Effects on Development

Gary S. Fields

*Cornell University*, [gfs2@cornell.edu](mailto:gfs2@cornell.edu)

Follow this and additional works at: <https://digitalcommons.ilr.cornell.edu/reports>

Thank you for downloading an article from DigitalCommons@ILR.

**Support this valuable resource today!**

---

This Article is brought to you for free and open access by the ILR Collection at DigitalCommons@ILR. It has been accepted for inclusion in Research Studies and Reports by an authorized administrator of DigitalCommons@ILR. For more information, please contact [catherwood-dig@cornell.edu](mailto:catherwood-dig@cornell.edu).

If you have a disability and are having trouble accessing information on this website or need materials in an alternate format, contact [web-accessibility@cornell.edu](mailto:web-accessibility@cornell.edu) for assistance.

---

# Interactions Between Trade Policy and Labor Market Policy and Their Effects on Development

## Abstract

[Excerpt] Studies of various countries show that those which have emphasized an export-led growth strategy have, in general, outperformed those which have followed an import substitution orientation. Accordingly, AID is currently focusing on export promotion as a means to stimulate economic growth and development.

An effective export-led strategy requires an integrated overall policy setting. In particular, trade and foreign sector policies must be related to labor market policies. Because labor market policy might reinforce or nullify trade policy, and because labor market issues merit attention per se, AID has an interest in research on how trade policies and labor market policies interact to affect economic development. The research reported here – primarily theoretical but also including one empirical study – helps fill that need.

## Keywords

trade, labor markets, development, economic growth

## Comments

### Suggested Citation

Fields, G. S. (1986). *Interactions between trade policy and labor market policy and their effects on development* [Electronic version]. Washington, DC: U.S. Agency for International Development.

**FINAL REPORT**

**INTERACTIONS BETWEEN TRADE POLICY  
AND LABOR MARKET POLICY  
AND THEIR EFFECTS ON DEVELOPMENT**

**Gary S. Fields**

**November, 1986**

**Background**

Studies of various countries show that those which have emphasized an export-led growth strategy have, in general, outperformed those which have followed an import substitution orientation. Accordingly, AID is currently focusing on export promotion as a means to stimulate economic growth and development.

An effective export-led strategy requires an integrated overall policy setting. In particular, trade and foreign sector policies must be related to labor market policies. Because labor market policy might reinforce or nullify trade policy, and because labor market issues merit attention per se, AID has an interest in research on how trade policies and labor market policies interact to affect economic development. The research reported here -- primarily theoretical but also including one empirical study -- helps fill that need.

**Papers Prepared Under the Present Study**

The scope of work for this project specified that three interim technical papers were to be prepared. The papers previously submitted are:

"Wage Floors and Economic Development," First version, October, 1984; Revised version, June, 1985;

"Trade Policy in an Economy with Minimum Wages and Other Institutionally Determined Labor Costs," May, 1985;

"Export-Promotion and Labor Markets," May, 1986.

Helpful comments were received from AID on the first two of these papers.

Based on those comments and on work in the intervening months, the number of technical papers has been expanded from three to five, including one that goes beyond the terms of the contract. They are:

**Paper #I:** "Wage Floors and Economic Development";

**Paper #II:** "Modern Sector Enlargement in Alternative Dualistic Development Models";

**Paper #III:** "Developing the Dualistic Economy: Modern Sector Enlargement or Traditional Sector Enrichment?"

**Paper #IV:** "Export-Promotion and Labor Markets";

**Paper #V:** "Wage-Setting Institutions and Labor Markets," co-authored with Henry Wan, Jr.

These papers appear as technical annexes to the full report and are available from the author or from AID.

The balance of this paper highlights the main findings and policy implications of the five technical papers.

### **Paper #I: "Wage Floors and Economic Development"**

The goal of economic development is to raise standards of living. Most persons' standards of living are determined by their labor earnings. Thus, the attainment of full employment and rising real wages are rightly viewed as a primary means of improving living standards in an economy.

One policy approach to raising labor earnings is indirect: encouraging labor-intensive economic growth. Another approach is direct action: establishing minimum wages, encouraging strong trade unions, or otherwise setting labor costs institutionally. These non-market mechanisms are referred to in this study as "wage floors."

Wage floors are always sector-specific. Urban workers may be covered but not rural ones. Large firms may be included but not small ones. Trade unions are strong in certain sectors but not in others. Accordingly, this paper considers sector-specific wage floors.

This paper asks what would happen if a wage floor is imposed on one sector of a dualistic developing economy but not the other. The answers are neither clear-cut nor unambiguous. Wage floors may have positive development effects in some circumstances, negative in others. Simple arguments asserting that wage floors are good (because it's better if workers are paid more) or bad (because wage floors introduce factor price distortions) are shown to be simplistic.

Eight formal propositions are derived in this paper. They are:

1. A wage floor causes unemployment.
2. A sector-specific wage floor induces movement of labor out of the covered sector if the demand for labor in the covered sector is elastic and into the covered sector if the labor demand is inelastic.
3. For any given wage floor and for any given elasticity of wage in the noncovered sector with respect to the size of that sector's labor force: (a) A greater elasticity of demand for labor in the covered sector may result in less unemployment.

(b) A greater elasticity of demand for labor in the covered sector may result in more unemployment.

4. For any given wage floor and for any given elasticity of demand for labor in the covered sector: (a) If the demand for labor in the covered sector is elastic, then the more elastic is the wage in the noncovered sector with respect to the size of that sector's labor force, the higher is unemployment: \ If the demand for labor in the covered sector is inelastic, then the more elastic is the wage in the noncovered sector with respect to the size of that sector's labor force, the lower is unemployment.

5. (a) A higher wage floor may result in more unemployment in equilibrium. (b) A higher wage floor may result in less unemployment in equilibrium.

6. (a) The total wage bill will rise if the wage floor moves people out of the noncovered sector and those who remain receive a higher wage. This happens if i) the demand for labor in the covered sector is inelastic and ii) the elasticity of the wage in the noncovered sector with respect to the noncovered sector labor force is nonzero. (b) The total wage bill will fall if the wage floor moves people into the noncovered sector and the wage falls there. This happens if i) the demand for labor in the covered sector is elastic and ii) the elasticity of the wage in the noncovered sector with respect to the noncovered sector labor force is nonzero. (c) The total wage bill will be unchanged if the wage in the noncovered sector does not change when a wage floor is imposed in the

covered sector. This happens if the elasticity of the wage in the noncovered sector with respect to the noncovered sector labor force is zero.

7. A wage floor results in a less equal distribution of labor incomes.

8. A wage floor can increase or decrease absolute poverty.

The ambiguity of some of these results may come as a surprise to some readers. In particular, those who might be inclined on the basis of past reading to think that a higher wage floor necessarily results in more unemployment or that a more elastic demand for labor in the covered sector necessarily results in lower unemployment would be mistaken.

What do these results imply for a country's wage policy? The goal of an economic system is to provide opportunities for improved standards of living for more people. The question is whether the imposition of a wage floor in key sectors of an economy helps attain that objective.

Economists are largely opposed to non-market wage-setting.

Opponents of wage floors raise the following points:

1. A wage floor would be expected to reduce employment in the covered sector, as employers in that sector move up their labor demand curves.
2. Because of search for the better-paying jobs, a higher wage would induce unemployment.
3. The economy will be operating inefficiently inside its production-possibilities frontier, because some labor resources are unemployed and because the marginal rates of transformation and substitution are unequal.

4. Income inequality may well increase due to rising wages for some and falling wages and unemployment for others.
5. Poverty may increase because fewer persons are working.
6. Growth will be impeded due to lower profits and diminished capital formation.

These presumed adverse effects have led the great majority of economists to view minimum wages, union wage-setting, and other non-market forms of wage determination as inappropriate mechanisms for trying to achieve widespread improvements in standards of living.

Supporters of wage floors react as follows:

1. A good society would not permit employers to pay workers less than a living wage. It is outrageous that workers who work so hard should be paid so little. The decent thing to do is to mandate a living wage.
2. Studies have shown that the demand for labor tends to be inelastic. Therefore, when a wage floor is imposed, the total wage bill paid to labor increases. Labor is thus better off as a result.
3. The economy is full of slack. If employers are forced to pay higher wages, they will be shocked into finding new and better ways of doing things. Higher wages thus benefit not only labor; they force management to be more efficient. The whole economy is better off.
4. The conclusion that a wage floor lowers employment assumes a perfectly competitive labor market. But in reality, labor markets are far from perfect. Monopsony is pervasive. Under monopsony, a wage floor, if properly chosen, can result in



greater employment at the higher wage.

5. The argument that a wage floor reduces profits and impedes economic growth weights the future too much and the present generation too little.

How are these various points offered by the two sides to be evaluated? I view the arguments invoked by the opponents of wage floors as logical analytically and well-founded empirically. Logically, the models have become part of standard textbook labor economics and have withstood the test of time. Empirically, the evidence is strong. Downward-sloping labor demand curves are hardly exceptional. Workers' responsiveness to economic incentives in alternative sectors or locations is well-established empirically. So too is the existence of a labor aristocracy--workers who, by virtue of being employed in a favored part of the economy, receive wages two or three times those of their fellows employed elsewhere. And the development records of those economies in which market wage determination is the norm on the whole far surpass the records of economies which imposed or permit wage floors. These theoretical arguments and empirical evidence create a strong presumption against institutionally imposed wage floor.

As for the points put forth by wage floor proponents, I evaluate them as follows.

1. I agree that it is outrageous that workers who work so hard should be paid so little. There's nothing fair about that. But is it any less outrageous or any more fair to impose a wage floor when the effect is to reduce job opportunities and create unemployment? The consequences of wage floors cannot be neglected. Paying a living wage to some while the many

others not covered eke out whatever meagre existence they can doesn't make society any more decent.

2. Suppose labor demand were inelastic, as proponents of wage floors claim. It is true that the total wage bill will rise if a wage floor is imposed. But, although labor as a whole may earn more, in the absence of distributional mechanisms, those who lose their jobs or cannot find new ones are worse off. Only to the extent that redistribution actually takes place, either publicly (through taxes, government spending, and income maintenance programs) or privately (through remittances, private transfers, etc.) is the total wage bill of labor a sound criterion for those concerned with the well-being of the poor. Anyhow, the demand for labor in a small open economy engaged in international trade is probably quite elastic, reflecting a highly elastic demand for product. In such cases, total wage bill paid to labor would fall if a wage floor were to be imposed, so the argument at the beginning of this paragraph would be moot.
3. The shock effect argument requires a strong belief in inefficiencies. This runs very much contrary to the view that the quest for maximum profits (orthodox terminology) or the incessant drive for capital accumulation (radical terminology) has led firms to be efficient and ever-maximizing. To believe that firms can be shocked into being more efficient while maintaining that they are always maximizing is logically contradictory. This contradiction seems not to have deterred some of the strongest believers in the acquisitiveness of

capitalists from also being ardent spokespersons for shock effects and the inefficiencies of capitalists. Illogic aside, the empirical evidence for shock effects is less than persuasive.

4. The monopsony argument must be evaluated in terms of the mobility of labor and the consequent elasticity of supply of labor to the covered sector. If we envision workers in the uncovered sector as constituting a vast reserve army of the underemployed (not a bad assumption, I think--precisely the one that motivated the surplus labor models of Lewis and Fei and Ranis), then firms in the covered sector may have to raise wages very little if at all in order to attract more labor. In such a case, the result is only a very narrow band within an exogenously-imposed wage floor would lead the monopsonist to increase employment. A higher wage resulting in less employment is far more likely.
5. The intertemporal issue is one of the potential for economic growth and improvements in labor well-being through saving, investment, and capital-formation. Steady-state growth models weigh only the future. I agree with critics who say those models give too little weight to the present. But it is just as wrong to consider only the present as it is to consider only the future. Rates of time preference must be weighed against the gains from investment and growth. To give no weight to capital and profits and thereby to ignore growth effects and future generations of workers is wrong too.

In sum, I am persuaded more by the arguments against wage floors than I am by the counterarguments in their favor. Consequently, in the

absence of evidence to the contrary in a particular context, I am inclined to regard market wage determination as the preferred labor market regime.

In Paper #V and elsewhere, (Fields, 1984, 1985), I have made the case that those East Asian economies that rely largely on market wage determination have done very well, not only in terms of higher GNP growth but also in terms of attainment of full employment, rapidly rising real wages, low to moderate levels of income inequality, and falling absolute poverty. For those very same economies, trade was the engine of growth and of improved standards of living. This creates further presumptive evidence in favor of market wage determination.

No one questions the desirability of higher standards of living for workers in developing economies. The sooner, the better. But pushing wages up prematurely through artificially-set wage floors is probably not the best way to go about it and may well be counterproductive. Policies aimed at enhancing a country's ability to produce profitably and efficiently for the work market hold out more promise.

**Paper #II: "Modern Sector Enlargement in Alternative Dualistic Development Models"**

Paper #I took the country's trade policy as given and asked what what would happen if a wage floor is imposed on one sector of a dualistic developing economy but not the other. Papers #II and #III, by contrast, take the wage floor as given and investigate the country's trade policy.

In the context of a dualistic developing economy, the key distinction is between a high income "modern" sector and a low income "traditional" sector. The essence of economic development is the gradual upgrading of traditional sector workers through: (a) "modern sector enlargement,"

whereby the high income sector expands in size to employ a larger number of workers, and/or (b) "traditional sector enrichment," whereby those who remain in the traditional sector enjoy gains in income through higher earnings or self-employment income. It is assumed here that the high wage sector is the export sector and the low wage sector is the domestic goods sector. This assumption is appropriate to many economies which export manufactured goods or mineral products.

Paper #11 examines the effects of enlarging a country's modern export sector, for example, because the country is successful in attracting foreign firms to produce for export within its borders or because an aid agency makes money available to the country to develop its export industries. In actuality, resources must typically be expended in order to attract resources from abroad; for instance, tax concessions may have to be made to attract investment, infrastructure may have to be provided at public expense, and the like. But to abstract from these costs and highlight the point of the argument, the analysis here proceeds on the assumption that funds for expanding the modern export sector are made available to the country costlessly. The decision facing the country is whether or not to accept a costless injection of resources.

We might be inclined to think that a costless injection of resources would be an unambiguously good thing, reasoning along the following lines. The new resources would be expected to shift the country's production-possibilities frontier outward, enabling more goods and services to be produced. To the extent that labor is used in the productive process, employment is enhanced. Wages may well be bid up by the need for a larger work force, affording the opportunity for improved standards of living among those already working. And the income distribution may well be

improved, both in terms of relative inequality and in terms of absolute poverty. On the whole, then, a widespread presumption is that the benefits of expanding a country's modern export sector may well be substantial.

Paper #II -- "Modern Sector Enlargement in Alternative Dualistic Development Models" -- shows that the answer is not so simple. Taking account of induced effects, modern sector enlargement may, on balance, be positive or negative. This is aside from opportunity cost considerations, i.e., the possibility that the funds might have been better used elsewhere in the economy.

In the best of circumstances, modern sector enlargement is clearly beneficial. This is the case when those who are newly-employed in the high-wage modern sector are drawn from employment in the low-income traditional sector or from unemployment. When this happens, the workers themselves are better off; so too is the economy. One such case was analyzed in a previous paper of mine (Fields, 1979) -- the case of zero unemployment, when all of the newly-employed in the high wage sector are drawn from low-wage agricultural employment.

In other circumstances, though, the effects are less clearly beneficial. The central issue is whether the creation of additional high wage jobs is itself a cause of additional unemployment. This may well be the case in actual countries' experiences. In recognition of this, models such as that of Harris and Todaro (1970) specify that high wage jobs are filled only by individuals who search while unemployed.

A key result of the HT class of models is that for any given differential in wages between high wage and low wage jobs, the more high wage jobs there are, the more unemployment there will be. However, the wage differential may itself change, depending on (i) how responsive wages

in the agricultural sector are to changes in the size of that sector's labor force and (ii) whether the net effect of modern sector enlargement is for workers to move into or move out of the agricultural sector. It follows that a complete analysis of the effects of modern sector job creation must consider not only the net creation of new jobs but also adjustments in the wage structure and in the intersectoral allocation of the labor force among search strategies.

The following results are obtained in Paper #II:

1. Modern sector enlargement does not necessarily raise GNP; GNP may remain unchanged.
2. Although modern sector enlargement increases employment in the high wage sector, it may also increase unemployment.
3. Modern sector enlargement may raise or lower relative income inequality, depending upon the model.
4. Modern sector enlargement may lower absolute poverty or to affect its components ambiguously, depending upon the model.

These results imply that the labor market and income distribution consequences of modern sector enlargement are not robust to model specification. The consequences are very different depending on whether the economy in question is a zero-unemployment economy or a Harris-Todaro-type economy.

These findings have policy ramifications. Suppose a developing country can enlarge its modern sector costlessly -- say, by accepting foreign aid offered for that purpose or by welcoming in multinational corporations who are willing to invest in the modern sector. Even if it can do so, development may be hampered. Then again, it may not. Which of these is the case depends on the workings of the country's labor market, and in

particular, on how much additional unemployment is generated by modern sector enlargement.

Some policy interventions are suggested by these findings. One variable is whether an economy faces a constant marginal product of labor in agriculture or a falling one. This may be influenced by development planners and policymakers to the extent that they can alter patterns of land ownership and land tenure, agricultural credit, fertilizer, and other inputs.

Another variable is the labor market institutions themselves. If job search had less payoff, there would be less search unemployment. In models such as that of Harris and Todaro, migration in search of employment confers only social losses (viz., loss of agricultural output) with no corresponding social gain. In these circumstances, the case is strong for making such migration less rewarding. One way of doing this might be to enhance on-the-job search, for instance, by establishing more comprehensive employment exchanges to which employed workers have access.

**Paper #III: "Developing the Dualistic Economy: Modern Sector Enlargement or Traditional Sector Enrichment?"**

Countries are sometimes offered resources which may be used to promote economic development in whatever way is deemed most desirable. In the context of a dualistic economy, this means that the resources might be deployed for use in developing the modern sector or in developing the traditional sector. It is up to the development authorities to decide how to allocate these resources between sectors.

The policy variable under investigation in Paper #III, as in Paper #II, is the country's choice of trade policy. Once again, we consider the case of



a dualistic developing economy consisting of a high-wage export sector ("modern") and a low-wage agricultural sector ("traditional"). The issue examined here is what trade policy should be chosen. The specific way in which the choice of a trade policy is implemented is the decision whether to allocate additional development resources to the economy's modern sector in order to expand production and employment there (a process termed "modern sector enlargement") or to allocate those resources for enhancing productivity in domestic agriculture (a process termed "traditional sector enrichment").

The practical policy context is immediate. Many developing countries have money available for development purposes. The source of these funds may be the national treasury, a foreign donor, or a multinational corporation. Although at times, the development fund is made available only for particular purposes -- for example, when a multinational corporation invests in a country for modern sector export expansion, as analyzed in Paper #II -- at other times, the development fund is unrestricted and may be spent on whatever sector or activity is deemed most useful. Paper #III considers the effects of receiving a development fund for use in expanding production and employment in either of two sectors of a dualistic economy.

Different theoretical perspectives on dualistic development suggest different answers. Those coming from the tradition of Lewis, Fei and Ranis, Jorgenson, and others might tend to regard the modern sector as the leading sector and trade as the engine of growth. The presumption among these observers is that the best use of additional development resources is to stimulate the modern sector. Others would tend to argue just the opposite. Some, such as Schultz, are inclined to believe that traditional agriculture has been starved for resources and that an influx of development funds to

that sector would have a higher marginal product than in the modern sector. Furthermore, in light of the migration models of Harris and Todaro, Harberger, and followers, there is good reason to be wary of expanding jobs in the relatively high-wage urban economy, because in these models, such an expansion induces an influx of job-seekers, in all likelihood aggravating unemployment.

These different perspectives about how best to allocate development resources reflect different maintained assumptions (usually implicit) about conditions in product and labor markets. I would characterize them thus.

Those who favor allocating development resources to the modern sector tend to presume that economic growth is best achieved by shifting the locus of economic activity toward modern sector activities. The case for development of the modern export sector hinges on a number of assumptions: that the marginal product of additional resources allocated to the modern sector is high; the labor required for expanding production is forthcoming; the additional products can be sold profitably in the world market; and relatively little output is foregone by rechanneling resources from the traditional to the modern sector.

The case favoring the allocation of additional resources to the traditional sector reflects different assumptions, among them: that the marginal product of additional resources is higher in traditional agriculture than in the modern sector; that an expansion of employment in the modern export sector may pull so much labor out of traditional agriculture that foregone output is high; and that an excess of job-seekers over job opportunities will create additional unemployment.

The results of the model formulated in Paper #III are as follows:

1. The costless availability of a development fund may not bring about development. The effects may be adverse.

2. If the development fund is offered to the country without restriction (by AID, say), the choice whether to use the fund to stimulate growth of the modern sector, growth of the traditional sector, or neither depends on: a) The amount of modern sector enlargement that can take place from the given development fund, b) The effects of modern sector enlargement if the fund is used for that purpose, c) The amount of traditional sector enrichment that can take place from the given development fund, and d) The effects of traditional sector enrichment if funds are used for that purpose.

3. The choice of a trade policy, as represented by the decision of how to allocate development funds between sectors, is extremely sensitive to the specification of labor market conditions. In this way, the choice of a trade policy should be conditioned fundamentally by the labor market conditions prevalent in a country.

The practical significance of these results is the following. It is most efficacious to use additional development resources to expand modern sector exports and employment when the marginal product of capital in the modern sector is high and the amount of induced unemployment is low. In other circumstances -- namely, when the marginal product of capital is higher in the traditional sector than in the modern sector and when search unemployment is widespread-- allocating the development for purposes of traditional sector enrichment would be better. The presence of minimum

wages or other institutionally determined labor costs certainly must be taken account of in any decision of how best to utilize development funds; but whether export-led growth is precluded or not depends on the precise product market and labor market circumstances prevailing. No general conclusion about the relative merits of export-led growth versus domestically-oriented growth can be reached without further specifying the particular circumstances in a given economy.

#### **Paper #IV: "Export Promotion and Labor Markets"**

This paper analyzes interactions between trade policy and labor market policy. This differs from the preceding papers, in which one policy or the other was assumed to have been pre-set.

The aspect of trade policy considered here is export promotion. Because the term "export promotion" is used in various ways by various authors, I should be clear about what I mean by it here. In this paper, I follow the lead of Ranis (1981) and define export promotion as the active expenditure of resources in order to facilitate exports. An example of export promotion would be the construction of a harbor at public expense. This contrasts with "export substitution," a less interventionist strategy, which entails removing tariffs and quotas on imported goods, eliminating export licensing, lifting capital subsidies, revaluing an overvalued exchange rate, or otherwise "getting the prices right."

One question is why export promotion is required at all. Take the example of a harbor. If indeed exporting is a profitable activity, why is the harbor not built at private expense? A strong possibility of market imperfection arises, namely, that private sector firms may be unable to borrow sufficient funds to carry out the export-promotion project on their

own. Capital market imperfections are an important reason for export-promotion activities to be undertaken by the public sector.

Export promotion (e.g., public construction of a harbor) creates an externality: export firms receive a publicly-provided input for which they do not pay. This is in the nature of a quasi-fixed cost: once export promotion has been decided upon, society must pay for the harbor, but these costs can be avoided if the harbor is not built.

Our analysis of export promotion must recognize the divergence between social and private costs and benefits. Firms decide whether to export and how much to export on the basis of their private calculations. The social calculations differ. One reason for the divergence is that a social cost is incurred by creating the facilities by which exporting can take place. This cost is an external benefit to the export firm. Another reason for the divergence between private and social returns is that the export sector may face a wage floor and therefore be obliged to pay relatively high wages. In this case, unemployment may result. This is another external social cost which does not enter into the calculations of the export firm but should nonetheless be taken account of in the social decision regarding export promotion.

Consider, then, the following "typical" situation: decisions about exporting are decentralized among private firms, the public sector provides an input needed for exporting, capital markets are imperfect, and wages are artificially high in the export sector. Because these conditions deviate so markedly from those assumed in standard international trade models, we cannot use the theorems of trade theory to justify free trade as the best policy. Instead, when private and social profitability of exporting diverge, government involvement may be called for. But this involvement must be

considered with great care. When the social costs of exporting exceed the private costs, as is often the case, exporting may be privately profitable but socially unprofitable. Even though the export firm might earn a profit from exporting and the workers employed in that firm might earn higher wages than they would have otherwise, and maybe even the workers who are left behind in the domestic goods sector earn higher wages because of the removal of some workers into the industrial sector, it may nonetheless be that the combined gain for firms and workers will not be large enough to meet the cost of constructing the harbor in the first place.

Whether the export promotion activity is socially profitable or not depends on the particular parameter values and on the labor market regime in the country. The country's labor market policy alters all variables. Suppose that wages in the export sector are pushed up above the market-clearing level. Then, for any given output level, the cost of production increases. As a result, less output is produced, less revenue is generated, less employment is gained in the export sector, and the social profitability of export promotion decreases. Consequently, an export-promotion activity that might have been socially profitable if the wage in the export sector were market-determined may become socially unprofitable if the wage in the export sector is raised above market levels.

The model developed in Paper #IV demonstrates rigorously the possibility that an export promotion activity that may be socially desirable with market-clearing wages may be rendered socially undesirable when wages are set above market-clearing levels. In particular:

1. It is possible (but not necessary) that a policy of export-promotion (i.e., spending public funds to promote exports by subsidizing the private sector) produces higher GNP

than an inward-looking trade strategy when wages in the export sector are market-determined.

2. However, the ranking may be reversed when wages in the export sector are set institutionally above market levels: the inward-looking trade strategy may produce higher GNP than an export-oriented trade strategy under non-market-determined wages.

3. Therefore, whether an export-oriented trade strategy raises GNP or lowers it depends in part on the labor market regime within which trade policy is chosen.

It is important to note that while the labor market regime might cause a reversal of trade policy, it does not necessarily do so. Nonetheless, trade policy and labor market policy interact in ways that are not always appreciated.

Certain policy implications are suggested by these results. The practical policy question is which policy takes primacy: trade policy or labor market policy. Suppose the country's labor market regime is immutable. This may be because of a politically-based decision to encourage strong trade unions or because of the belief that minimum wages are good in and of themselves. In either case, export promotion may not be warranted, because the volume of exports is too low to justify the requisite costs. But in the alternate situation where the country's labor market regime is a genuine policy instrument, labor market policy and trade policy should be formulated jointly. The two policies operate synergistically: the optimal trade policy choice depends on the choice of labor market policy and vice versa.

These results raise an important note of caution for policy-makers. The advice now being so freely-dispensed -- "develop via exports" -- may be quite suitable for a country with market-determined wages, quite disastrous otherwise. The reason for this is that the country's ability to export and the social gains from exporting may be adversely affected by higher-than-market-clearing wages. This is not an endorsement of wage repression; it is an argument for allowing wages to be pulled up by increased competition for workers engendered by export-led growth rather than forcing them to be pushed up by non-market forces.

The Jamaicas, Mexicos, and Indonesias of the Third World are being advised to develop through export-led growth. Because wages in their export sectors are two or three times higher than market-clearing levels, these countries start out at an enormous disadvantage in trying to compete successfully in world markets with the U.S., the European Economic Community, Japan, and the East Asian NICs. Can they and those who advise them really expect export-oriented trade policies to improve standards of living under such circumstances? If non-market wage determination is decided upon first as a matter of public policy, an export-led trade and industrialization policy may thereby be precluded. Under such conditions, whatever development policy package is adopted, production for export ought not to be part of it.

Not to be able to export profitably is bad. To export unprofitably is worse.

**Paper #V: "Wage-Setting Institutions and Economic Growth"**

(co-authored with Henry Wan, Jr.)



The scope of work for this project specified a number of theoretical studies to be done. These studies have been described above.

However, in applied economics, theoretical models are not purely deductive. They are rooted fundamentally in the reality of labor market conditions in different parts of the world.

Different wage policies are pursued in various regions of the developing world. The single most important issue is whether a country relies primarily on market wage determination or institutional wage determination. Thus, in the course of this research, an investigation was made into wage-setting institutions in various developing countries. In Paper #V, the wage-setting institutions in the economies of Hong Kong, Korea, Singapore, and Taiwan are compared with those in Costa Rica, Panama, and Jamaica.

In most of the countries of Latin America, the Caribbean, Africa, and South Asia, wages in key sectors are not determined by supply and demand but rather by any or all of a number of non-market forces. These non-market forces often have potent influences in key sectors of those countries' labor markets. Minimum wage laws are common in many developing countries, at least in certain major sectors (e.g., large factories). When these laws are enforced, wages may be very much higher in the affected sectors than they might otherwise have been in the absence of minimum wage laws. Labor unions often are very strong, and are able to use their strength at the bargaining table to secure above-market wages for their members. Pay policy with respect to public sector employees frequently results in higher wages being paid to government workers than to comparable workers in the private sector. Multinational corporations sometimes are encouraged to pay high wages to local workers, lest those

corporations be expelled from the country if they do not. Finally, labor codes and protective labor legislation may add substantially to the costs employers must pay when they hire workers. For these reasons, models with wage dualism, unemployment, and other such features are often used to model these countries' labor markets.

The newly-industrializing countries of East Asia are different. Wages and other labor costs have not been inflated artificially there. Economic development in those economies has depended on low labor costs. Policy-makers in Hong Kong, Korea, Singapore, and Taiwan realized that if they were to gain and then maintain trade positions in world markets, the basis for doing so would be low price, which implied in turn the need for low wages. Their wage policies consequently prevented wages from exceeding market levels, as was true in other parts of the world. For the most part, wage levels in the East Asian NIC's were left to be determined by supply and demand.

Market wage determination, prevalent in the economies of East Asia during most of their recent histories, has had several fundamentally important implications for the success of export-led growth in their economies. For one thing, market wage determination helped those countries avoid economic inefficiencies and misallocations of labor which might have arisen from distortions in wages. Market wage determination also naturally led employers to utilize the available labor force to the fullest extent possible, enabling those economies to pursue their inherent comparative advantages and produce goods intensive in labor. Another benefit of market wage determination is that it prevents substitution of capital in place of labor in the production process which, if it takes place, lessens employment. Yet another possible effect is that market wage

determination diminishes the expected-income incentive in rural-urban migration; as shown in Fields (1984), the wage differential between manufacturing and agriculture is quite narrow in East Asia, much in contrast to most Latin American countries. Finally, market wage determination avoids unnecessarily high costs of production that might hamper a country's ability to sell their products profitably in world markets.

Besides the direct effects described above, market wage determination also has effects on other factors often emphasized in the development literature. For instance, price stability requires absence of wage push. Then too, attraction of foreign investment requires reasonable labor cost and industrial peace. Wage institutions are one element among many determinants of development performance, but they merit more attention than is usually given them.

Although the NIC's have generally relied on market wage-determination, they have done so with very different amounts of government involvement. The governments of Singapore and Korea have been the most interventionist, applying government power to restrict wage growth. The Hong Kong government has adopted perhaps the most laissez faire set of labor market policies of any government in the world. Taiwan is closer in that respect to Hong Kong than to Korea or Singapore. The difference, interestingly, is not between the larger economies and the city-states but between the overall amount of central direction in their respective economies. But when confronted by labor unrest and entrepreneurial flight respectively, the governments of Korea and Singapore were forced to bow to economic inevitability. Thus, when wide departures from the market wage

rate threatened to slow the engine of growth, they reversed their courses and turned again to market forces.

Whereas avoidance of premature wage increases dominated wage policy in the NIC's in the past, conscious efforts are now being made to push wages up somewhat. Taiwan introduced a new labor law a year ago and Korea is actively considering introducing a minimum wage. Whether market determination will prevail in the East Asian NIC's in the future as it has in the past remains to be seen. It appears likely that it will. The NICs' governments are well-aware that market wage determination has served them very well up to now. This awareness is perhaps the strongest reason to predict that they will not seriously distort wages in the future.

The fact is that the East Asian NIC's have done better than economies elsewhere. The NIC's have attained full employment, pronounced improvements in real wages, and rapidly rising prosperity. They have done so while letting supply and demand dominate their labor markets.

The following conclusions may be drawn from the record:

1. A market-determined wage rate, combined with an export-oriented economy, can absorb large numbers of workers in a few short years. By contrast, high minimum wages, militant unionism, or overzealous social legislation appear to impede growth of employment and output and hence do little to help country-wide poverty.

2. Wage repression is unnecessary and undesirable at this stage -- unnecessary because, as in the experience of Hong Kong, full employment can be attained quickly; undesirable because, as in the experience of Korea, wage repression generates workers' resentment and endangers industrial peace.

3. What justifies initial wage restraint is the rapid rise in labor earnings that accompanied the East Asian NICs' economic growth. Real earnings grew much more rapidly in Hong Kong, Korea, Singapore, and Taiwan than in Latin America, both because full employment was attained and because real wages per hour are sharply higher. As a result, the workers in the East Asian NIC's live very much better than they did a decade or two ago.

It bears mention that while the East Asian economies did not permit wages to be set well above market-clearing levels, it is also true that for the most part they did not hold wages artificially below market-clearing levels either. But in Singapore in the 1970's and apparently in Korea more recently, wage repression was practiced.

The successes of market wage determination point to a direction that other countries might pursue to advantage. But this call should not be misinterpreted. The goal of any economic system is to provide higher standards of living for people. Living standards should not be sacrificed to economic growth per se. Nor is laissez faire capitalism necessarily the best form of economic organization. When supply and demand have determined wages and when economic growth consistent with comparative advantage has taken place, outcomes have been favorable at both the macro and the micro levels. Standards of living have jumped as a result.

More empirical work on other countries remains to be done.