IMF WORKING PAPER

WP/90/33

INTERNATIONAL MONETARY FUND

Middle Eastern Department

Labor Market Segmentation in a Two-Sector Model of an Open Economy

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Authorized for Distribution by Malcolm D. Knight

April 1990

Abstract

The paper examines formally the effects of labor market segmentation in a two-sector open economy model. The model demonstrates how the structure of the labor market affects the real exchange rate, defined as the relative price of traded and home goods, and is then used to examine the effects of two common labor market policies: increasing the degree of primary market coverage, and implementing wage restraint in the primary market. It is shown that increasing the degree of primary market coverage increases unemployment and leads to a real appreciation. Real wage restraint in the primary market, on the other hand, reduces unemployment, and has ambiguous but probably small effects on the real exchange rate.

JEL Classification Numbers:

411; 821

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*The author would like to thank Ronald Findlay, Stanislaw Wellisz, Patricia Mosser, Arnold Layne, and Jagdeep Bhandari for helpful comments.

Contents

Summary

This paper develops a two-sector model of a small open economy with traded and home goods and with a labor market that is segmented in a primary part, where jobs are rationed, and a secondary part, where the real wage clears the market. This distortion causes unemployment, misallocation of labor between the sectors, and affects the real exchange rate, defined as the relative price of traded and home goods. The full extent of these effects cannot be captured in either partial equilibrium models of the segmented labor market, where the relative price of goods is taken as given, or traditional two-sector models, where the labor market is uniform.

The model is used to examine the effects of two common labor market policies. First, the analysis shows that increasing the degree of primary market coverage (turning secondary into primary jobs) leads to a higher secondary wage, higher unemployment, and real exchange rate appreciation. This analysis suggests a possibility so far overlooked in traditional macroeconomic models: that overvalued real exchange rates and resistance to real devaluations may be partly caused by labor-market segmentation.

Second, the paper shows that real wage restraint in the primary market reduces the secondary wage and creates employment in both sectors. Although real wage restraint cannot eliminate unemployment, its positive effects are larger than partial equilibrium analysis suggests; its effect on the real exchange rate is ambiguous, but probably very small.

I. Introduction

The term "labor market segmentation" is used here to characterize the coexistence of two different forms of market organization. In the so-called primary labor market, jobs are rationed by an above-equilibrium real wage. In the secondary market the wage is flexible and responds to excess demand conditions. Empirical evidence from developing economies (Fields 1980; Squire 1981; Heckman & Hotz 1985; Johnson 1986) as well as industrialized countries (Osterman 1975; Carnoy & Rumberger 1980; Reich 1984; Dickens & Lang 1985 and the references therein) establishes segmentation as a prevalent stylized fact of the labor market.

Several theorists have studied the primary market segment and have suggested alternative hypotheses that explain the non-competitive wage determination there. These hypotheses range from "job competition" models (Thurow 1979), to "internal labor market" theories (Doeringer & Piore 1971; Berger & Piore 1980), to the "insider-outsider" approach (Lindbeck & Snower 1986a and 1986b), to the family of "efficiency wage" models (see the survey in Akerloff & Yellen 1986). Others have studied the interaction of the two segments. This "dual market" approach first appeared in its present form in the work of development economists (Wellisz 1968; Todaro 1969; Harris & Todaro 1970) and was followed by other as well (Corden & Findlay 1975; Mincer 1976; Calvo 1978; Blomqvist 1978). The basic conclusion of these models is that, even if the secondary market is perfectly competitive, a primary/secondary wage differential and some unemployment will persist at equilibrium. Moreover, expansion of labor demand and/or real wage restraint in the primary market will not restore full employment. These characteristics have made segmented market models increasingly popular tools for analyzing situations of persistent unemployment in both developing economies (Drazen 1982) and industrialized countries (Bulow & Summers 1986; Blanchard & Summers 1986).

All these contributions use essentially a partial equilibrium framework; changes in the relative prices of goods are ignored because only one (single or composite) good is produced. Segmentation has not been properly studied in a two-good general equilibrium model, where the goods price is endogenous. This is all the more surprising since it has been shown (Neary 1980; van Winjbergen 1984) that the "open economy" model with traded and home goods is very sensitive to specific assumptions about the structure of the labor market.

Introducing labor market segmentation in such a model raises two separate sets of questions. First, since segmentation causes not only output loss due to unemployment but also misallocation of labor between sectors, how is the real exchange rate (relative price of goods) affected. Second, given that many countries follow specific labor market policies (real wage restraint, expansion of job protection

legislation, reduction of wage differentials, etc.), often in the context of structural adjustment programs, what are the macroeconomic implications of these policies when the market is segmented.

This paper addresses these questions in a very simple general equilibrium two-sector model of a small open economy with a segmented labor market. The model is presented in the next section and the policy implications in Section III. The results are summarized in the last section.

II. The Model

1. General equilibrium

Two goods, home and traded, are produced with ordinary neoclassical production functions. There is a fixed endowment of homogeneous labor, which is the only mobile factor across sectors. On the demand side, identical consumers consume both home and traded goods.

The labor market is dichotomized in a primary and a secondary part. As the emphasis here is on the effects of segmentation on unemployment and the macroeconomy, the wage determination mechanism in the primary market is left deliberately unspecified: the primary real wage is simply assumed to be rigid at an above-equilibrium level. Any one (or any combination) of the existing hypotheses in the literature could be picked as an explanation of the real wage rigidity in the primary market without affecting the conclusions of this analysis.

Equilibrium in the labor market obtains in the following way. Before the markets open, workers decide whether or not to queue for primary jobs, based on the information about the exogenously given real wage there. Since labor is assumed to be homogeneous, firms in the primary market do not discriminate between workers; they hire randomly from the queue up to the point where the product wage is equal to the marginal product of labor. The workers who do not get hired are the unemployed. The workers who decide not to queue for primary jobs are the supply to the secondary market which, together with demand there, determines the wage so that the secondary market clears. At equilibrium the secondary wage must equal the expected gain from queuing in the primary market, which is equal to the primary wage times the probability of finding primary employment. Since hiring is random, this probability is the number of primary jobs over the number of workers in the queue. This equilibrium configuration is the one used in Corden & Findlay (1975) and is founded on a utility-maximizing model of risk-neutral workers (see Demekas 1987).

In the rest of the paper we use the following notation (throughout the paper subscripts i denote sectors, where n is home and t is traded goods sector, and superscripts j denote segments, where p is the primary and s the secondary labor market):

q_i	production of good i, i = n, t.
L_i	demand for labor in sector i.
ϵ_i	elasticity of the demand for labor in sector i.
$\bar{L}$	total supply of labor.
W^j, ω^j	nominal and real wage in segment j, j = p, s.
P_i	price of good i in terms of domestic currency.
$z = \frac{P_t}{P_n}$	real exchange rate.
θ	share of home goods in consumption.
$\theta p_n + (1 - \theta)p_t$	consumer price index.
Y	nominal income.
$y = q_n + zq_t$	income in terms of the home good.
$D_i(y, z)$	demand for good i.
g_i	a shift parameter in the demand for good i.
η_i	income elasticity of demand for good i.
e	nominal exchange rate.
i	domestic interest rate.
D	stock of domestic credit.
R	foreign reserve holdings of the Central Bank.

Segmentation poses an important problem in this model: what is the correspondence between the primary/secondary dichotomy in the labor market on the one hand, and the division of production in home and traded goods on the other? It is assumed for simplicity that all the firms in the traded goods sector hire their workers in the primary labor market ($L_t = L^p$) and all the firms in the home goods sector hire their workers in the secondary market ($L_n = L^s$). This conforms to the *prima facie* evidence that, in many developing countries, import competing manufacturing, export industries, and export crops are under direct or indirect government control, protected by labor legislation, and usually unionized, whereas construction, family farming, retail trade, and many nontraded services belong to the so-called "informal" sector.

Using the assumption that $L_t = L^p$ and $L_n = L^s$, the labor market equilibrium condition discussed earlier can now be written:

$$\omega^s = \frac{L_t \omega^p}{\bar{L} - L_n} \tag{1}$$

The product wage in the home goods sector, w, is:

$$w = \frac{W_n}{P_n} = \omega^s\left[(\theta + (1 - \theta)z\right] \tag{2}$$

Similarly, the product wage in the traded goods sector is:

$$\frac{W_t}{P_t} = \omega^p\left[(\frac{\theta}{z} + (1 - \theta)\right] \tag{3}$$

Using (2) and (3) the labor demand functions can be written as:

$$\underset{(-)}{L_n(w)} \text{ ; and } \underset{(-)\ (+)}{L_t(\omega^p,\ z)} \tag{4}$$

Using (2), (3) and (4) the condition (1) can be rewritten as:

$$\frac{w}{\theta = (1 - \theta)z} = \frac{L_t(\omega^p,\ z)\omega^p}{\bar{L} - L(w)} \tag{1.a}$$

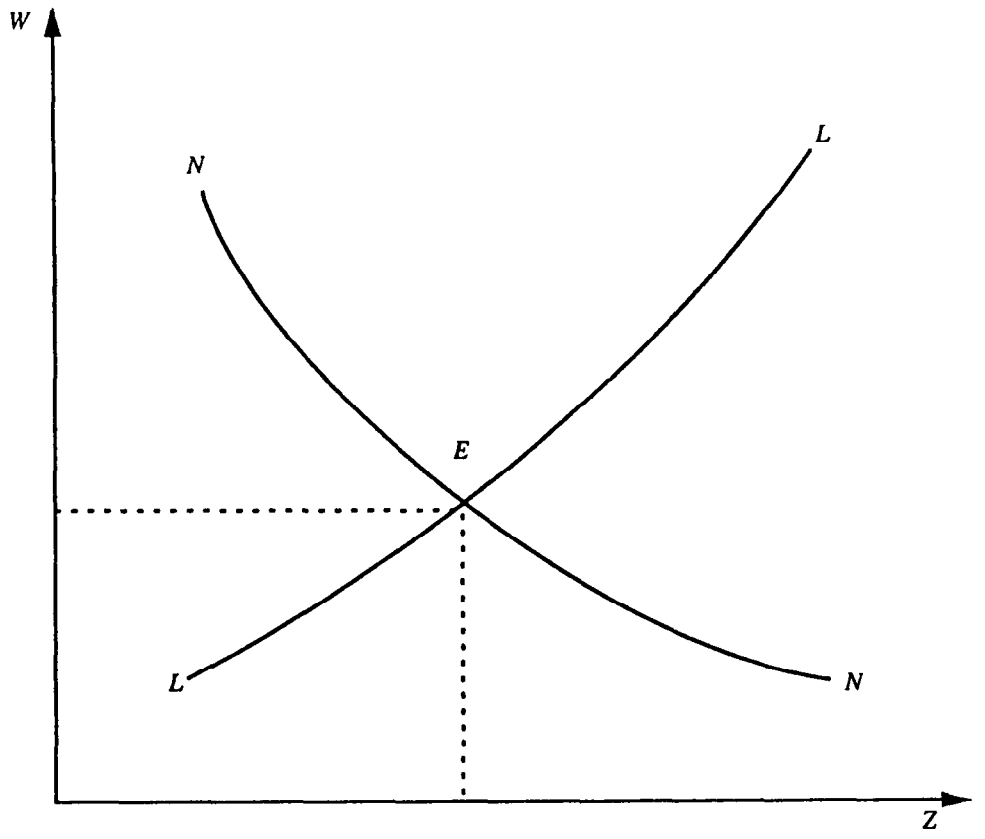
(1.a) defines an equilibrium locus LL in the w-z space (see Figure 1) with a slope of:

$$\frac{dw}{dz}\Big|_{LL} = \frac{\omega^p L_t\left[(1 - \theta) + \theta|\epsilon_t|\right]}{\bar{L} - L_n(1 - |\epsilon_n|)} \tag{5}$$

The condition that the elasticity of labor demand in the home goods sector be less than or equal to one ($|\epsilon_n| \leq 1$) is sufficient to guarantee that the slope of LL is always positive. We will henceforth assume that this condition is satisfied.

The LL curve shifts in response to changes in the exogenous variables. An increase in total labor supply shifts the curve down, indicating that, for any given z, the equilibrium level of w is now lower. Increases in ω^p, the primary market real wage, have ambiguous effects on the position of LL, depending on the size of ϵ_t, the elasticity of labor demand in the traded goods sector.

Figure 1



If $|\varepsilon_t| \leq 1$, then increasing ω^p results in a higher wage bill in the traded goods sector, which puts upward pressure on ω^s, and the LL curve shifts up. The intuitive explanation for this is that if ω^p goes up but L_t is inelastic and does not fall much, the expected gain from queuing has risen and the secondary wage must also rise. If, on the other hand, L_t is elastic ($|\varepsilon_t| > 1$), the opposite happens: the equilibrium w must, ceteris paribus, fall and the LL shifts down. For the rest of this paper $|\varepsilon_t|$ will be assumed to be less than one. This assumption, as well as the assumption $|\varepsilon_n| \leq 1$ made earlier, are supported by empirical evidence from both developing and industrialized countries, which indicates that the relevant range of labor demand elasticities is well below unity (see the surveys in Krueger 1983, p. 25-6; Demekas & Klinov 1987a; see also the estimates of demand elasticities in the primary and secondary labor market in Colombia in Demekas 1988).

In the market for goods the equilibrium condition is that the market for home goods clears. In other words:

$$\underset{(+)\ (+)}{D_n(z,\ y)} + g_n = q_n \tag{6}$$

Since firms in both sectors are on their labor demand curves, we can use (4) to write the sectoral supply functions:

$$\underset{(-)\ (+)}{q_t(\omega^p,\ z)}\ ;\ \text{and}\ \underset{(-)}{q_n(w)} \tag{7}$$

After substituting (7) into (6), the home goods market equilibrium condition contains only two endogenous variables, w and z. An equilibrium locus NN can then be defined in the w-z space (see Figure 1) with a slope:

$$\left.\frac{dw}{dz}\right|_{NN} = -\frac{\frac{\partial D_n}{\partial z} + \frac{\partial D_n}{\partial y}\left[q_n + \frac{\omega^p \Theta}{z} L_t |\varepsilon_t|\right]}{L_n|\varepsilon_n|\left[1 - \eta_n \frac{q_n}{y}\right]} \tag{8}$$

The condition that home goods be neither inferior nor luxuries ($0 < \eta_n \leq 1$) is sufficient to guarantee that the slope of NN is always negative. This assumption will be maintained throughout this paper.

An autonomous increase in the demand for home goods (dg_n) tends to lower z and shifts the NN curve to the left. An increase in the primary real wage reduces income and demand for home goods and shifts NN to the right.

The intersection of LL and NN represents general equilibrium in this model (see Figure 1). The real exchange rate and the product wage in the home goods sector are simultaneously determined and they, in turn, provide a whole range of information about the performance of the economy. The real exchange rate and the rigid primary real wage determine the product wage, employment and output of the traded goods sector. Employment and output of home goods depend only on w. Income in terms of home goods can then be calculated as $y = q_n + zq_t$. Unemployment is simply:

$$U = \bar{L} - L_t(\omega^P, z) - L_n(w) = U(w, z) \quad (+)\ (-) \qquad (9)$$

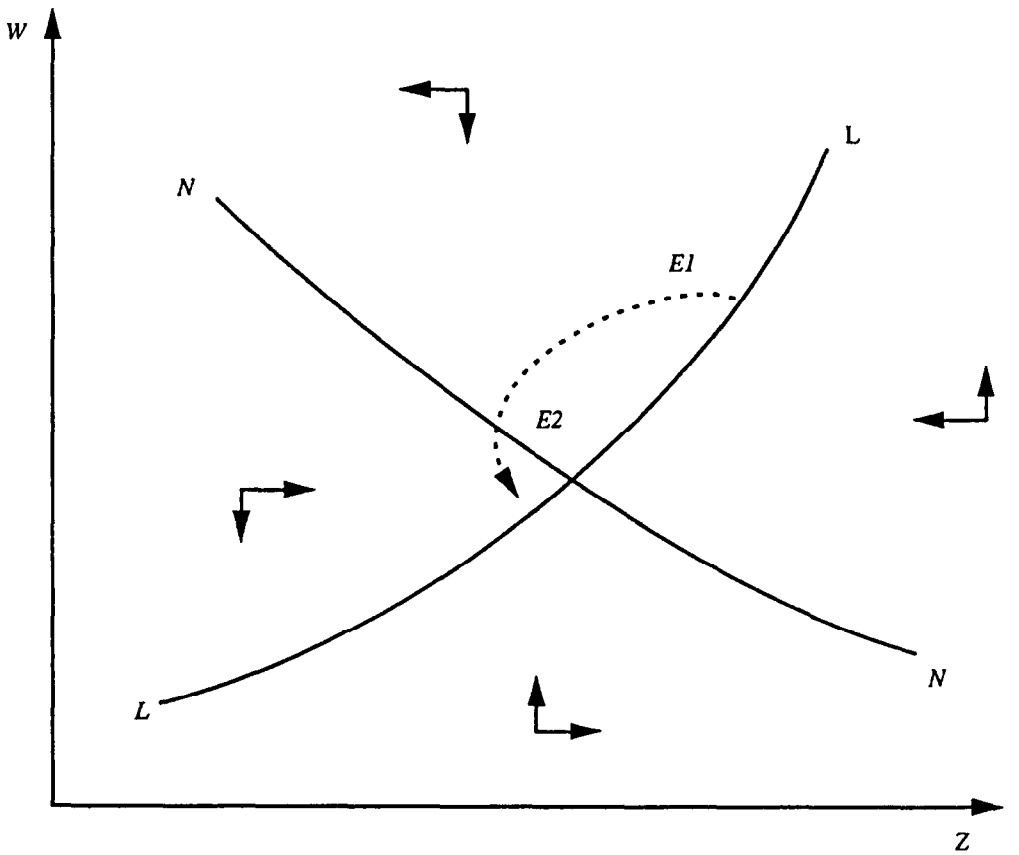
The basic model presented above is very similar to the one used by Neary (1980) and Prachowny (1984). Both assume a perfectly competitive labor market and solve the model graphically in terms of the wage and the relative goods price. Neary, then, goes on to examine the effects of ad hoc rationing constraints in the labor and the home goods market. His model, however, cannot be used in the case of a segmented labor market for two reasons: first, the rationing constraints he postulates in the labor market are applied equally across-the-board to all firms; and second, his analysis does not determine a general equilibrium with rationing, but just shows where in the w-z space the equilibrium might appear, depending on to what market the constraints apply.

2. Dynamic Stability

Although the previous analysis is static, the equilibrium depicted in Figure 1 can be shown to be locally dynamically stable if the product wage and the home goods price respond positively over time to excess demand in the secondary labor market and the home goods market, respectively. The arrows in Figure 2 depict the "laws of motion" of the economy. The adjustment path of w and z in general will be counter-clockwise. An exogenous increase in the demand for home goods, for example, which, as we have seen, shifts the NN curve to the left, will cause the economy to follow the path depicted in Figure 2. In the course of adjustment from E1 to E2 the economy will undershoot the new equilibrium level of the real exchange rate.

The importance of this dynamic analysis should not be over-estimated. Determination of the precise adjustment path for the economy would require specification of adjustment equations for z and w in a dynamic model. In a static model like the one here the precise shape of the path is essentially a matter of speculation. Even this, however, can be useful as an illustration of how the economy would react to shocks that change the equilibrium (w,z) pair.

Figure 2



3. Determination of unemployment: a geometric analysis

Equation (9) gives an expression for equilibrium unemployment. Figure 3 suggests an intuitive geometric interpretation. Quadrant I is simply Figure 1. Quadrants II and IV contain the labor demand functions in the home and the traded good sectors respectively. The labor demand in the home goods sector is a function of the product wage w, whereas the labor demand in the traded goods sector is a function of z, given the level of the rigid real wage ω^P. Finally, line AB in quadrant III represents the total supply of labor. Equilibrium at E in quadrant I determines $\tilde{w}$ and $\tilde{z}$, which, in turn, determine $\tilde{L}_n$ and, given ω^P, $\tilde{L}_t$. Unemployment, then, is simply the segment $\tilde{L}_t C$ in quadrant III.

Both (9) and Figure 3 highlight the importance of including relative goods price effects in the analysis of unemployment in segmented markets. If these effects are ignored, as in Corden & Findlay's analysis for example, an increase in the demand for home goods would cause an increase in the demand for labor in that sector and an unambiguous decline in unemployment. Here the results are ambiguous. When NN shifts to the left, both w and z fall. The first effect tends to increase employment in the home goods sector and, therefore, reduce unemployment. The fall in the relative price of traded goods, however, increases the product wage and reduces demand for labor in that sector. The net effect on unemployment is not clear.

4. The monetary sector

The model, so far, determines all the real variables in the system. To determine the nominal variables it is necessary to add a monetary sector. Domestic demand for money is:

$$M(Y, i) = kYs(i) , \quad s' < 0 \tag{10}$$

Equation (10) assumes for simplicity that the income elasticity of the demand for money is equal to one. Using a simple interest rate parity condition:

$$i = i^* + \frac{e^e - e}{e} \tag{11}$$

where i^* is the world interest rate and $(e^e - e)/e$ is the expected rate of exchange rate depreciation, and assuming, for simplicity, that exchange rate expectations are inelastic in the short run, but perfect foresight prevails in the long run, the interest rate can be written:

$$i = i(i^* , e) \qquad (11.a)$$

The domestic money supply consists of domestic credit and foreign reserve holdings by the Central Bank. Equilibrium in the money market obtains when:

$D + R = kYs(i)$, or, in terms of the numeraire good

$$\frac{D + R}{ep^*_t} = k \left[q_t + \frac{q_n}{z}\right] s(i^*, e) \qquad (12)$$

This equilibrium condition preserves money neutrality: a doubling of the money stock and e leaves real balances and other real variables unaffected. Since w and z are determined in the real side of the economy, equation (12) provides the nominal anchor of the system, determining either e, if the exchange rate is flexible, or R, if the exchange rate is fixed.

Equation (12) defines an equilibrium locus MM in the w-z space with a slope equal to:

$$\left.\frac{dw}{dz}\right|_{MM} = \frac{\frac{\omega P_\theta}{z} L_t |\varepsilon_t| - \frac{q_n}{z}}{L_n |\varepsilon_n|} \qquad (13)$$

The condition $|\varepsilon_t| \leq 1$ is sufficient to make the numerator of (13) negative and, therefore, the slope of MM negative.

Since w and z are predetermined from the point of view of the money market, the position of MM is endogenous; MM must always pass through the intersection of LL and NN (Figure 4). A shift in either LL or NN that establishes a new equilibrium causes MM to shift so that it passes through the new intersection. An outward (inward) shift of the MM is brought about by an exchange rate depreciation (appreciation).

In order to predict the effects of a real change on the nominal exchange rate we need to know more about the slope of MM. Making the standard assumption that substitution effects dominate income effects in the demand for home goods, in other words,

Figure 3

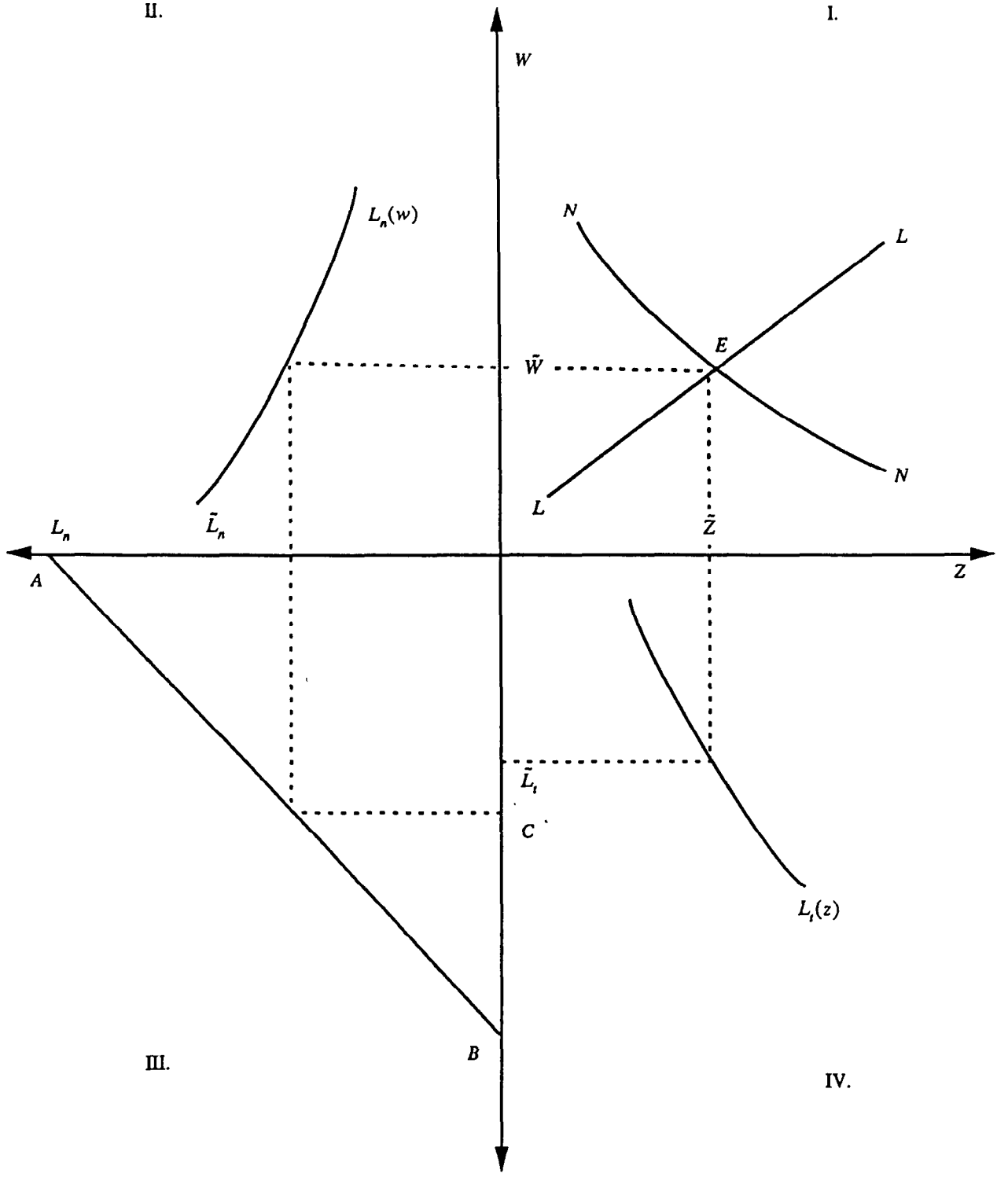
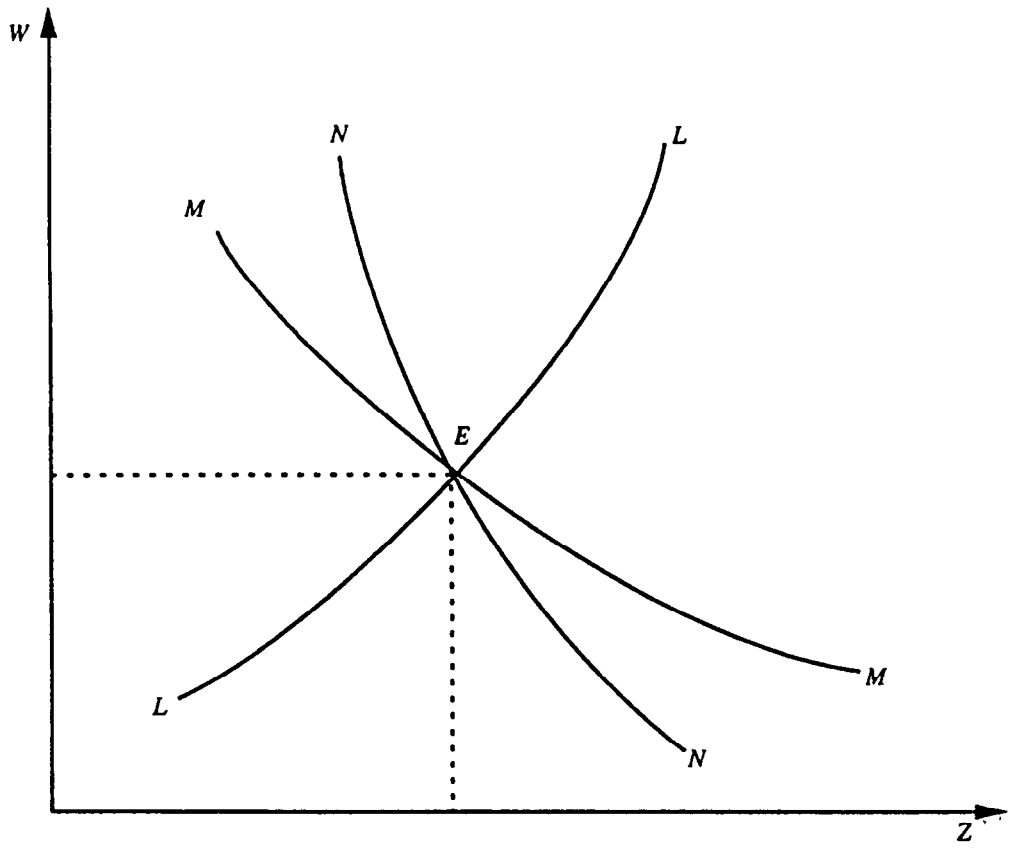

II.
I.
W
$L_n(w)$
N
L
E
$\tilde{W}$
N
L
L_n
$\tilde{L}_n$
$\tilde{Z}$
Z
A
$\tilde{L}_t$
C
$L_t(z)$
III.
B
IV.

Figure 4



$$\frac{\partial D_n}{\partial z} \geq \frac{\partial D_n}{\partial y}$$

we can show that the following condition is sufficient but not necessary to guarantee that NN is always steeper than MM.

$$\eta_n \geq \frac{\frac{y}{z} - \frac{\omega^p}{z} L_t |\epsilon_t|}{\frac{y}{z} + 1} \qquad (14)$$

The right-hand side of (14) is less than one. Since η_n has already been assumed to be between zero and one (because the home good is normal), condition (14) divides the range of η_n into two areas: if η_n is "high" (between the right-hand side of (14) and one), then NN is steeper than MM; if η_n is "low", then MM may be steeper than NN. The curves in Figure 4 are drawn for the case of "high" η_n.

This has important implications for monetary policy. Consider, for example, the case of an exogenous increase in labor supply, which shifts the LL curve down. The new real equilibrium will be at a point on NN to the right of E in Figure 4. If NN is steeper than MM, this will require a nominal exchange rate appreciation (MM must shift inward), whereas if MM is steeper the nominal exchange rate must depreciate (MM must shift outward).

The intuition behind this example is quite straightforward. A higher $\bar{L}$ results in lower wage and higher output in the home goods sector. Income in terms of home goods is increased, but since $\eta_n < 1$, demand for home goods is increased less than supply and z rises. (12.a) shows, however, that the effect on income in terms of traded goods is ambiguous: it tends to increase as q_n expands but, on the other hand, it tends to fall as z rises. If η_n is close to zero, then excess supply of home goods will be large, z will increase significantly, income in terms of traded goods will fall and so will demand for money; the nominal exchange rate, then, must depreciate. If, on the contrary, η_n close to one, then z will not increase by much, income in terms of traded goods will rise and a higher demand for money will cause the nominal exchange rate to appreciate.

Since money is neutral and nominal rigidities are absent from our model, the analysis of the monetary sector is not essential for our basic results. In what follows we will concentrate on the real side of the economy, unless otherwise indicated.

III. Labor Market Policies

In this section specific wage and employment policies are examined in a segmented market framework. Partial equilibrium models cannot capture the full macroeconomic effects of such policies and, since they ignore relative price movements, may even lead to inaccurate conclusions about the final effect on unemployment. Traditional general equilibrium models with uniform labor markets, on the other hand, cannot be used to evaluate policies that aim to reduce unemployment in a segmented market.

We will examine the effects of two different sets of policies, which are common in industrialized and, especially, developing countries. First, the expansion of minimum wage laws, job protection, non-wage labor costs, etc. to larger number of occupations; this essentially turns secondary into primary jobs, increasing the degree of coverage of the primary market. Second, wage restraint in the primary market; in the context of our model this can be represented by a fall in the primary real wage.

What happens when the number of primary jobs is increased? From equation (1.a) it follows that if an autonomous increase in L_t occurs, the LL curve shifts up and to the left (Figure 5). At the new equilibrium E_2 the secondary wage is higher and z is lower than before. This happens because as the probability of finding primary market employment rises, so does w. Employment and output of the home goods sector, as well as income in terms of home goods, decline. Demand for home goods, then, falls, but by less than supply because $0 < \eta_n \leq 1$. Excess demand causes the price of home goods to rise and z to fall.

In other words, increasing the degree of primary market coverage leads initially to a higher real wage in the secondary market, a higher product wage in the home goods sector and higher unemployment. In addition, the real exchange rate appreciates. This discourages production of traded goods, reduces demand for labor there and exacerbates the problem of unemployment. Partial equilibrium models, which do not capture this "second round" of effects, tend to underestimate the impact on unemployment of increases in the degree of primary market coverage.

Turning now to the case of real wage restraint in the primary market, it is obvious that when ω^p is reduced both LL and NN are affected. Since the expected gain from queuing for primary jobs is reduced, LL shifts downward. At the same time, since employment and output in the traded goods sector expand, demand for home goods is increased and NN shifts to the left. As seen in Figure 6, both shifts affect the product wage in the same direction but the real exchange rate in different directions. The general equilibrium effects of real wage

Figure 5

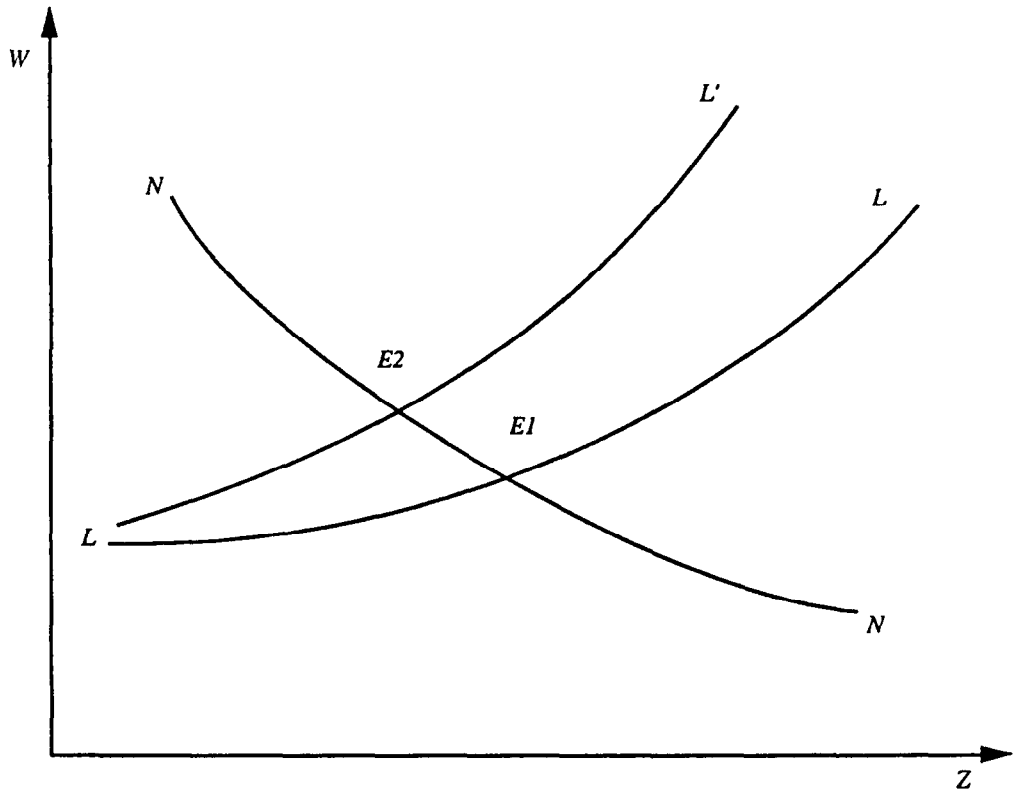
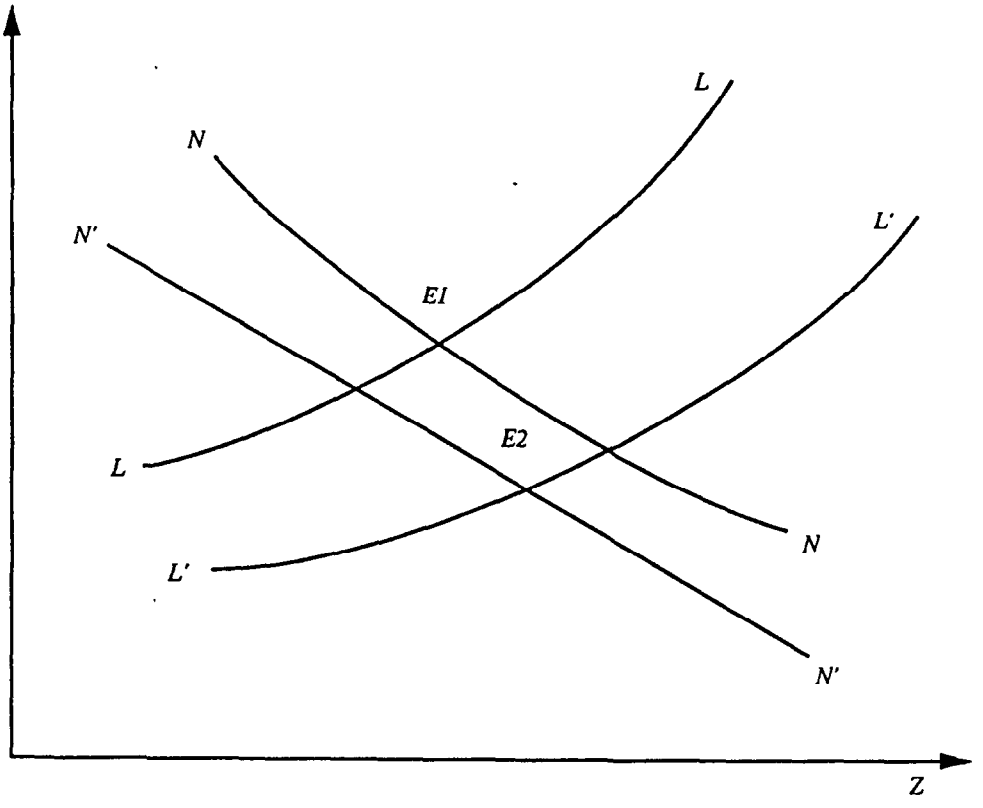


Figure 6



restraint in the primary market are a decline in the product wage in the home goods sector and an ambiguous (but small) change in the real exchange rate. The real secondary wage, as well as unemployment, fall.

How do these results compare with the results of partial equilibrium analysis? Partial equilibrium models predict that a decline in the primary wage reduces the secondary wage and increases employment and output in both sectors. They fail, however, to capture the income effect that increased output has on the demand for goods and, therefore, underestimate the total effect of real wage restraint on employment creation.

IV. Summary and Conclusions

A simple model of a small open economy with traded and home goods was developed, with a labor market which is segmented in a primary part, where jobs are rationed, and a secondary part, where the wage clears the market. This distortion causes unemployment, misallocation of labor between the sectors, and affects the real exchange rate defined as the relative price of traded and home goods. The full extent of these effects cannot be captured in either partial equilibrium models of the segmented labor market, where the relative price of goods is taken as given, or traditional two-good general equilibrium models, where the labor market is uniform. The model developed in this paper fills an important gap, especially for the policy-maker, who can now evaluate labor market policies more accurately.

The basic model is essentially an "Australian" model with a two-segment labor market, where the primary segment is subject to a rigid real wage. It is assumed, for simplicity, that the traded goods sector corresponds to the primary labor market and the home goods sector to the secondary labor market. At equilibrium, which can be given a simple geometric representation, the product wage in the home goods sector and the real exchange rate are simultaneously determined. These two variables, in turn, determine all the other real variables in the system. Moreover, although the model is static, it can be shown to be dynamically stable and its dynamic properties can be analyzed heuristically. Finally, a monetary sector can be easily added; since no nominal rigidities are postulated, however, it simply determines the price level and has no real effects.

The model is used to examine the effects of two very common labor market policies. First, it is shown that increasing the degree of primary market coverage (turning secondary into primary jobs) leads to a higher secondary wage, higher unemployment, and real exchange rate appreciation. The analysis suggests a possibility so far overlooked in traditional macroeconomic models: that labor market segmentation can be a contributing factor to an overvalued real exchange rate, as defined for the purposes of this paper.

Secondly, it is shown that real wage restraint in the primary market reduces the secondary wage and promotes employment creation in both sectors. Although real wage restraint cannot eliminate unemployment, its positive effects are larger than partial equilibrium analysis suggests. The effect on the real exchange rate is ambiguous but probably very small.

These conclusions fit in very well with the recent experience of some developing countries. As a result of "rationalizing" the labor markets, the application and coverage of minimum wage legislation, job protection and non-wage labor costs has been extended to large numbers of workers. On the other hand, in order to encourage employment creation and reduce "unfair" wage differentials, governments have followed a policy of real wage restraint for high wage earners. This policy has been partly successful: wage differentials have shrunk and average real wages have remained stable or have increased less than productivity (see, for example, the surveys in Squire 1981, Johnson 1986 and Demekas & Klinov 1987b). Unemployment, however, has persisted and at the same time, many of these countries have experienced difficulties changing the structure of relative prices so as to promote exports and reduce external imbalances.

The combination of these events is exactly what one would expect in our model, if both an increasing degree of primary market coverage and real wage restraint are pursued at the same time. The two policies have opposing effects on the secondary wage, which means that wage differentials will shrink and the average wage will fall. They also have opposing effects on unemployment, which explains its persistence. The net effect on the real exchange rate, however, will probably be an appreciation. In this way, the model presented in this paper highlights the effects the structure of the labor market and labor market policies may have on the macroeconomy.

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