Taxation of labour income and the skilled-unskilled wage inequality

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Abstract

Using a simple general equilibrium model of a small open economy that produces (i) an industrial good, (ii) an agricultural good, and (iii) a sector specific intermediate good, under competitive conditions, this paper examines the impact of a tax on labour on skilled-unskilled wage inequality. It is shown that, when all goods are traded, a tax on labour in the industrial sector increases skilled-unskilled wage inequality. On the other hand, a tax on labour in the intermediate good sector has the opposite effect. However, when the intermediate good is non-traded, the impact of a tax on labour in either of the two sectors is negative. Furthermore, irrespective of whether or not the intermediate good is traded, a tax on labour in the agricultural sector increases skilled-skilled wage inequality.

Keywords: Skilled-unskilled wage inequality; partial tax on labour, sector specific intermediate goods, globalisation, non-traded goods.

JEL Classification: H20; H22; J01; J3

1. Introduction

During the past two decades, a number of studies have attempted to identify the determinants of the skilled-unskilled wage inequality.[1] Most existing studies focus on the role of skill-biased technological progress and trade liberalisation. It has been argued that technological progress and worker skills are complementary and hence improvement in technology has resulted in a relatively large increase in the skilled wage, thereby increasing the skilled-unskilled wage inequality (Acemoglu, 2002; Card and DiNardo (2002); Epifani and Gancia, 2008; and Van Reenen, 2011).

Other recent explanations for increase in skilled-unskilled wage inequality include economic restructuring and increased international competition (Blum, 2008 and Breau and Rigby, 2010), Beladi, Chaudhuri and Yabuuchi (2008) highlight the role of factor mobility. Gupta and Dutta (2012) and Pi and Zhou (2012 & 2014) focus on the role of provision of public infrastructure. Chongvilaivan and Thangavelu (2012) and Anwar (2013) show that international outsourcing can also contribute to skilled-unskilled wage inequality. Pi and Zhou (2013) examine the relationship between institutional quality and skilled-unskilled wage inequality. Klein, Moser and Urban (2103) argue that export oriented firms use relatively higher skilled workers, which can give rise to skilled-unskilled wage inequality. Li and Zhou (2013) suggest that remittances of unskilled workers can contribute to skilled-unskilled wage inequality in developing countries. Gupta and Dutta (2010 & 2011) focus on the role of non-traded goods and unemployment. They also attempt to generalise some existing results. Mandal and Marjit (2010) highlight the role of corruption, whereas Beladi and Chao (2010) examine the role of

[1] Wage inequality, wage gap and skill premium are three terminologies that are used interchangeably in the existing literature.

downsizing. van de Klundert (2008) highlighted the role that elasticity of substitution in consumption plays in explaining the skilled-unskilled wage gap. In a very interesting recent paper, Zhang (2015) argues that differences in elasticity of substitution in production across sectors can also account for skilled-unskilled wage gap.

The literature on the determinants of skilled-unskilled wage inequality is vast and we do not aim to provide a comprehensive survey of this literature in this paper.[2] While the skilled-biased technological progress has long being viewed as the most important determinant of the skilled-unskilled wage gap, the recent work of Marquis, Trehan and Tantivong (2014) suggests that skilled-biased technological progress can only explain a relatively small part of the skilled-unskilled wage gap in the US. They find that human capital growth can account for a significant proportion of the wage gap in the US. [3]

This paper aims to extend the existing literature on determinants of skilled-unskilled wage inequality into a different direction. Specifically, this paper examines the impact of a tax on labour income in different sectors on skilled-unskilled wage inequality. Recent studies, such as OECD (2012), suggest that too much attention has been paid to absolute wage inequality and factors like taxation and employment status (part time versus full time) have not received adequate attention. While some studies in the area of public finance, for example Bhatia (2001) and references therein, have examined the impact of taxation on wages, none of the available studies have considered the link between a partial tax on labour and skilled-unskilled wage

[2] An excellent review of the related literature can be found in, among others, Zhang (2013), Kurokawa (2014) and Pi and Zhou (2014).

[3] Other related studies include Lemieux (2006), Beladi, Chakrabarti and Marjit (2010), Bakhtiari (2012), Mehta and Hassan (2012), Ranjan (2012), Zhang (2012), Akerman et al. (2013), Bell and van Reenen (2013), McNabb and Said (2013), Pan and Zhou (2013), Chaudhuri and Gupta (2014).

inequality. In order to achieve equity, governments use their power to tax. Using a three-sector general equilibrium model involving an industrial good, an agricultural good and a sector specific intermediate good, this paper shows that when all goods are traded, a tax on labour in the industrial (intermediate good) sector can increase (decrease) the skilled-unskilled wage inequality. However, when the intermediate good is non-traded, a tax on labour in each of the industrial or intermediate good sector decreases the skilled-unskilled wage inequality.

The rest of this paper is organised as follows. A three-sector general equilibrium model involving a sector specific intermediate good is specified in section 2. The model is used to consider the impact of the introduction of a tax on labour on skilled-unskilled wage inequality in section 3. The last section offers some concluding remarks.

2. A Simple Theoretical Model

In order to examine the impact of a partial tax on labour on skilled-unskilled wage inequality, a simple general equilibrium model is presented in this section. Consider a small open economy that produces two final good: an exportable industrial good (Y) and an importable agricultural good (Z). Skilled labour, capital and an intermediate good (X) enter into the production of the industrial good. The intermediate good is produced by means of skilled labour and capital, whereas the importable agricultural good is produced by unskilled labour and capital. The production functions for the three goods are as follows:

$$Y = f\left(K_y, L_{sy}, X\right)$$

$$X = g\left(K_x, L_{sx}\right)$$

$$Z = h\left(K_z, L_{uz}\right)$$

where L_{sy} and K_y, respectively, are skilled labour and capital used in the production of the industrial good; L_{sx} and K_x, respectively, are skilled labour and capital used in the production of the intermediate good; and L_{uz} and K_z, respectively, are unskilled labour and capital used in the production of the agricultural good.

Perfect competition prevails in each industry and all three production technologies exhibit constant returns to scale.[4] Capital is mobile across all industries but the intermediate good and labour are sector specific. This allows one to capture the impact of relative factor intensities in an extreme fashion. Specifically, the agricultural good is relatively unskilled labour intensive, where as the broader industrial sector encompassing the production of the industrial and the intermediate good combined is skilled labour intensive. Furthermore, production of the industrial good is intermediate good intensive. The intermediate good could be viewed as a specialised service, which enters only the production of the industrial good.[5] We first consider the case where the intermediate good is internationally traded.

The zero profit condition that determines the equilibrium output of the industrial good Y is as follows:

$$1 = c^y\left(\left(1+t_y\right)w_s, r, p\right) \tag{1}$$

[4] This paper considers the case of competitive and frictionless markets. As this is the first paper that aims to examine the impact of a partial tax on labour on skilled-unskilled wage inequality, it is appropriate to start with the baseline case of competitive and frictionless markets. The implications of the presence of economies of scale that give rise to monopolistic competition will be examined in a separate paper. Similarly, the research presented in this paper can also be extended to include the case of unemployment and/or unionisation.

[5] In a recent paper, Barua and Pant (2014) have explored the implications of specific factor inputs on skilled-unskilled wage inequality. They show that in the case of a small open developing economy, productivity is a relatively more important determinant of wage inequality and trade liberalisation plays a less important role. However, the empirical work of Cali (2014) suggests that trade liberalisation contributed to a decrease in skilled-unskilled wage inequality in Uganda. But, Cali does not use a model that explicitly takes sector specific inputs into account.

where p is the price of the intermediate good; w_s is the skilled wage; r is the price of capital; and t_y is the tax on labour used in industrial sector.

The right-hand side of equation (1) is the unit cost of industrial good production, whereas the left-hand side is the price of Y, which has been normalised to equal unity. In other words, Y is the numéraire. The zero profit condition that determines the equilibrium output of the intermediate good X is as follows:

$$p = c^x\left(\left(1+t_x\right)w_s, r\right) \tag{2}$$

where t_x is the tax on labour used in intermediate good sector.

The right hand side of equation (2) is the marginal cost of production in industry X, which equals average cost due to constant returns to scale in the production technology. The left hand side is marginal revenue, which equals average revenue due to small open economy assumption. The zero profit condition that determines the equilibrium output of the agricultural sector is as follows:

$$q = c^z\left(\left(1+t_z\right)w_u, r\right) \tag{3}$$

where q is the price of the agricultural good; w_u is the unskilled wage; r is the price of capital; and t_z is the tax on labour used in the agricultural sector.

The right hand side of equation (3) is the marginal cost of production in sector Z, which equals the average cost due to constant returns to scale in the production technology. The left hand side is marginal revenue, which equals average revenue. The market clearing level of the skilled wage is determined by the interaction of demand and supply as follows:

$$Yc_w^y\left(\left(1+t_y\right)w_s, r, p\right)+Xc_w^x\left(\left(1+t_x\right)w_s, r\right)=\bar{L}_s \qquad (4)$$

where $\bar{L}_s$ is the supply of skilled labour, which is fixed.

Equation (4) shows that skilled labour is used only in the production of the industrial and intermediate goods. The first term on the left hand side of equation (4) is demand for labour in the industrial sector and the second term is demand for labour in the intermediate good sector, which can be expressed as follows:

$$c_w^y\left(\left(1+t_y\right)w_s, r, p\right)=\frac{L_{sy}^*}{Y^*}$$

$$c_w^x\left(\left(1+t_x\right)w_s, r\right)=\frac{L_{sx}^*}{X^*}$$

where L_{sy}^* and L_{sy}^*, respectively, are the optimal demand for labour in Y and X sectors.[6]

Unskilled labour is used only in the production of Z and the relevant market clearing condition is as follows:

$$Zc_w^z\left(\left(1+t_z\right)w_u, r\right)=\bar{L}_u \qquad (5)$$

where $\bar{L}_u$ is the supply of unskilled labour, which is fixed.

The left hand side of equation (5) is the demand for skilled labour, which is given by

$$c_w^z\left(\left(1+t_z\right)w_u, r\right)=\frac{L_u^*}{Z^*}$$

where L_u^* is the optimal demand for labour in Z sector.

Capital is used in all sectors and the relevant market clearing condition is as follows:

$$Yc_r^y\left(\left(1+t_y\right)w_s, r, p\right)+Xc_r^x\left(\left(1+t_x\right)w_s, r\right)+Zc_r^z\left(\left(1+t_z\right)w_u, r\right)=\bar{K} \qquad (6)$$

[6] Properties of cost functions are used to derive these expressions. See Varian (1992).

where $\bar{K}$ is the supply of capital, which is fixed.

Equation (6) determines the equilibrium reward for capital. The first and the second terms on the left hand side of equation (6) are demand for capital in industrial sector good and intermediate good sectors, whereas the third term is demand for capital in agricultural sector. This can be expressed as follows:

$$c_r^y\left(\left(1+t_y\right)w_s, r, p\right)=\frac{K_y^*}{Y^*}$$

$$c_r^x\left(\left(1+t_x\right)w_s, r\right)=\frac{K_x^*}{X^*}$$

$$c_r^z\left(\left(1+t_z\right)w_u, r\right)=\frac{K_z^*}{Z^*}$$

where K_y^*, K_x^* and K_z^*, respectively, are the optimal demand for capital in Y, X and Z sectors.

This completes the description of the equilibrium where the intermediate good is. There are six equations in six endogenous variables: w_s, w_u, r, Y, X, and Z. Equations (1) to (6) can be used to investigate the impact of a tax on labour on skilled-unskilled wage inequality.

2.1 Equilibrium where the intermediate good is non-traded

When the intermediate good is non-traded, price of the intermediate good *p* is determined by supply and demand conditions as follows:

$$Yc_p^y\left(\left(1+t_y\right)w_s, r, p\right)=X \qquad (7)$$

where $c_p^y\left(\left(1+t_y\right)w_s, r, p\right)=\frac{X^*}{Y^*}$ is the optimal demand for intermediate good per unit of the industrial good.

The right hand side of equation (7) is the supply, whereas the left hand side is demand for the intermediate good in industrial sector.

This completes the description of the equilibrium where the intermediate good is non-traded. There are seven equations in seven endogenous variables: $w_s,\ w_u, r,\ p, Y,\ X$, and Z. Equations (1) to (7) can be used to investigate the impact of a partial tax on labour on skilled-unskilled wage inequality.

3. Impact of a tax on labour on Skilled-unskilled wage inequality

The main purpose of this section is to investigate the impact of a tax on labour on skilled-unskilled wage inequality. This task is accomplished by making use of the model developed in Section 2.

3.1 Impact of a partial tax on labour when all goods are traded

Using equations (1) to (3), the impact of a tax on labour in industrial sector on skilled-unskilled wage inequality can be determined as follows:

$$\left[\hat{w}_s - \hat{w}_u\right] = \left[\frac{t_y}{1+t_y}\right]\left[\frac{\xi^y_{w_s}}{\xi^z_{w_u}}\right]\left[\frac{\xi^x_r\xi^z_{w_u} - \xi^x_{w_s}\xi^z_r}{\xi^y_r\xi^x_{w_s} - \xi^y_{w_s}\xi^x_r}\right]\hat{t}_y \qquad (8)$$

$$\xi^y_{w_s} = \left(\frac{\partial c^y(.)}{\partial w_s}\right)\left(\frac{w_s}{c^y(.)}\right);\ \xi^y_r = \left(\frac{\partial c^y(.)}{\partial r}\right)\left(\frac{r}{c^y(.)}\right)$$

$$\xi^x_{w_s} = \left(\frac{\partial c^x(.)}{\partial w_s}\right)\left(\frac{w_s}{c^x(.)}\right);\ \xi^x_r = \left(\frac{\partial c^x(.)}{\partial r}\right)\left(\frac{r}{c^x(.)}\right)$$

$$\xi^z_{w_u} = \left(\frac{\partial c^z(.)}{\partial w_u}\right)\left(\frac{w_u}{c^z(.)}\right);\ \xi^z_r = \left(\frac{\partial c^z(.)}{\partial r}\right)\left(\frac{r}{c^z(.)}\right)$$

where $\hat{w}_s$, $\hat{w}_u$, $\hat{t}_y$, $\hat{t}_x$, and $\hat{t}_z$ represent percentage change in the corresponding variables; and $\xi^y_{w_s}$ is the elasticity of the unit cost function for Y with respect to the wage rate.[7]

Equation (8) shows that the impact of a tax on labour in industrial sector on skilled-unskilled wage inequality depends on relative factor intensities. In the rest of this paper we assume that industrial sector is capital intensive as compared to the intermediate good sector, which is relatively capital intensive as compared to the agricultural good sector.[8] In other words

$$\frac{K_y}{L_{sy}} > \frac{K_x}{L_{sx}} > \frac{K_z}{L_{uz}}$$

The above relationship implies that $\xi^y_r \xi^x_{w_s} > \xi^y_{w_s} \xi^x_r$ and $\xi^x_r \xi^z_{w_u} > \xi^x_{w_s} \xi^z_r$. Based on capital intensity ranking, it can be argued that a tax on labour in industrial sector increases the skilled-unskilled wage inequality. This follows from the fact that a tax on labour in industrial sector increases the cost of production, which results in substitution of labour for capital. However the industrial sector is relatively capital intensive and therefore substitution of labour for capital releases a large proportion of capital per worker, which puts a downward pressure on the price of capital and therefore the skilled wage increases. As the price of capital falls, the unskilled wage increases but the increase in unskilled wage is less than the increase in the skilled wage and hence skilled-unskilled wage inequality increases.

The impact of a tax on labour in intermediate good sector on skilled-unskilled wage inequality can be examined by means of equation (9) as follows:

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[7] $\hat{w}_s = \frac{\Delta w_s}{w_s}$, $\hat{w}_u = \frac{\Delta w_u}{w_u}$, $\hat{t}_x = \frac{\Delta t_x}{t_x}$, $\hat{t}_y = \frac{\Delta t_y}{t_y}$, and $\hat{t}_z = \frac{\Delta t_z}{t_z}$.

[8] Within the context of a standard two-good and two-factor general equilibrium model, the results of a comparative static exercise depend on the ranking of relative factor intensities. It is therefore useful to identify the ranking of factor intensities at the outset (also see Anwar, 2010 and Zhang, 2013).

$$\left[\hat{w}_s - \hat{w}_u\right] = \left[\frac{-t_x}{1+t_x}\right]\left[\frac{\xi^x_{w_s}}{\xi^z_{w_u}}\right]\left[\frac{\xi^y_r \xi^z_{w_u} - \xi^y_{w_s} \xi^z_r}{\xi^y_r \xi^x_{w_s} - \xi^y_{w_s} \xi^x_r}\right]\hat{t}_x \tag{9}$$

Given the factor intensity ranking, equation (9) suggests that a tax on labour in the intermediate good sector decreases the skilled-unskilled wage inequality. This follows from the fact that a tax on labour in the intermediate good sector encourages firms to use more capital and less skilled labour. This puts a downward pressure on the skilled wage rate. Furthermore, as a result of the tax on labour in the intermediate good sector, at least some capital moves from the agricultural sector to the intermediate good sector, which tends to put a downward pressure on the unskilled wage rate. In overall terms, there is a relatively large decrease in the skilled wage rate and hence the skilled-unskilled wage inequality decreases.

The impact of a tax on labour in the agricultural sector can be examined by means of equation (10) as follows:

$$\left[\hat{w}_s - \hat{w}_u\right] = \left[\frac{t_z}{1+t_z}\right]\hat{t}_z > 0 \tag{10}$$

Equation (10) shows that, irrespective of the capital intensity ranking, a tax on labour in the agricultural sector increases the skilled-unskilled wage inequality. This follows from the fact that a tax on labour in the agricultural sector has no effect on the skilled wage but it reduces the unskilled wage. The agricultural sector is unskilled labour intensive and therefore the impact of a tax on labour due to substitution effect is negative. The results presented in this paper suggest that a tax on labour in different industries can have a different effect of skilled-unskilled wage inequality. So far, it is assumed that all goods are traded. In the rest of this paper, we consider the case where the intermediate good is non-traded.

3.2 Impact of a tax on labour when the intermediate good is non-traded

By using equations (1) to (7), the impact of a tax on labour on skilled-unskilled wage rate inequality can be determined. However, in order to simplify the mathematical derivation we assume a Cobb-Douglas functional form for the production functions, which yield the following optimality conditions.

$$1 = \Phi\left(\left(1+t_y\right)w_s\right)^{(1-\alpha)(1-\beta)} r^{\beta(1-\alpha)} p^{\alpha} \tag{11}$$

$$p = \Theta\left(\left(1+t_x\right)w_s\right)^{1-\gamma} r^{\gamma} \tag{12}$$

$$q = \Psi\left(\left(1+t_z\right)w_u\right)^{1-\theta} r^{\theta} \tag{13}$$

where Φ, Θ, and Ψ are positive constants; α, β, γ, and θ parameters of the production function. Each of these parameters is positive but less than unity; $(1-\alpha)(1-\beta)$, $\beta(1-\alpha)$ and α, respectively, are the relative shares of skilled labour, capital and the intermediate good in sector Y. $1-\gamma$ and γ, respectively, are the relative shares of skilled labour and capital in sector X. $1-\theta$ and θ, respectively, are the relative shares of unskilled labour and capital in sector Z.

The right hand sides of equations (11) to (13), respectively, are the unit cost functions for sectors Y, X and Z. Using these equations along with the relevant factor market equilibrium conditions, the impact of a tax on labour in the industrial sector on skilled-unskilled wage inequality when the intermediate good is non-traded can be derived as follows:

$$\left[\hat{w}_s - \hat{w}_u\right] = \left[\frac{-t_y}{\left(1+t_y\right)\Delta}\right]\left[\begin{array}{l}(1-\alpha)(1-\beta)\overline{KL}_s + \\ L_y\left(\overline{K}-K_z\right)\left\{\begin{array}{l}(1-\theta)\left[\beta(1-\alpha)+\alpha\gamma\right]- \\ \theta\left[(1-\alpha)(1-\beta)+\alpha(1-\gamma)\right]\end{array}\right\}\end{array}\right]\hat{t}_y \tag{14}$$

$$\begin{aligned}\Delta = &\left[(1-\alpha)(1-\beta)+\alpha(1-\gamma)\right]\left[\theta K_z + (1-\theta)\overline{K}\right]\overline{L}_s \\ &+\left[(1-\theta)\left\{\beta(1-\alpha)+\alpha\gamma\right\}\right]\left(\overline{K}-K_z\right)\overline{L}_s > 0\end{aligned}$$

Equation (14) shows that, when the intermediate good is non-traded, a tax on labour in industrial sector decreases the skilled-unskilled wage inequality as long as the combined industrial and intermediate good industry is equal to or greater than the capital intensity of the agricultural good sectors. In other words, the following condition holds

$$(1-\theta)\left[\beta(1-\alpha)+\alpha\gamma\right] \geq \theta\left[(1-\alpha)(1-\beta)+\alpha(1-\gamma)\right] \Leftrightarrow \frac{K_y+K_x}{L_{sy}+L_{sx}} \geq \frac{K_z}{L_{uz}}$$

The above condition is not very different from the factor intensity ranked assumed earlier. In mathematical terms

$$\frac{K_y}{L_{sy}} > \frac{K_x}{L_{sx}} > \frac{K_z}{L_{uz}} \Rightarrow \frac{K_y}{L_{sy}} > \frac{K_x}{L_{sx}} \text{ and } \frac{K_y}{L_{sy}} > \frac{K_z}{L_{uz}}$$

Furthermore, $\frac{K_y+K_x}{L_{sy}+L_{sx}} \geq \frac{K_z}{L_{uz}}$ can be re-written as

$$\left(\frac{L_{sy}}{L_{sx}+L_{sx}}\right)\left(\frac{K_y}{L_{sy}}\right)+\left(\frac{L_{sx}}{L_{sx}+L_{sx}}\right)\left(\frac{K_x}{L_{sx}}\right) \geq \frac{K_z}{L_{uz}}$$

Because $\frac{K_y}{L_{sy}} > \frac{K_x}{L_{sx}}$ and $\frac{K_y}{L_{sy}} > \frac{K_z}{L_{uz}}$, $\frac{K_y+K_x}{L_{sy}+L_{sx}}$ cannot be less than $\frac{K_z}{L_{uz}}$.

The impact of a tax on labour in intermediate good sector on skilled-unskilled wage inequality can be derived by means of equation (15) as follows:

$$\left[\hat{w}_s-\hat{w}_u\right] = \left[\frac{-t_x}{(1+t_x)\Delta}\right]\begin{bmatrix}\alpha(1-\gamma)\overline{KL}_s + \\ L_x\left(\overline{K}-K_z\right)\begin{Bmatrix}(1-\theta)\left[\beta(1-\alpha)+\alpha\gamma\right]- \\ \theta\left[(1-\alpha)(1-\beta)+\alpha(1-\gamma)\right]\end{Bmatrix}\end{bmatrix}\hat{t}_y \qquad (15)$$

Equation (15) shows that a tax on labour in intermediate good sector decreases the skilled-unskilled wage inequality when the intermediate good is non-traded.

The impact of a tax on labour in agricultural sector can be examined by means of equation (16) as follows:

$$\left[\hat{w}_s - \hat{w}_u\right] = \left[\frac{t_z}{1+t_z}\right]\hat{t}_z > 0 \qquad (16)$$

Equation (16) shows that, irrespective of capital intensity ranking, a tax on labour in agricultural sector increases the skilled-unskilled wage inequality. This follows from the fact that a tax on labour in agricultural sector has no effect on the skilled wage but it reduces the unskilled wage. The agricultural sector is unskilled labour intensive and therefore the impact of a tax on labour due to substitution effect is negative. The results presented in this paper suggest that a tax on labour in different industries can have a different effect of skilled-unskilled wage inequality.

4. Concluding remarks

A number of existing theoretical studies have attempted to identify the determinants of skilled-unskilled wage inequality. Early studies highlighted the role of skill-biased technological progress and trade liberalization. Recent studies consider the role of, among other things, corruption, international outsourcing and provision of public infrastructure. This paper focuses on the role of a tax on labour, which has not been considered by any of the available studies. Using a three sector general equilibrium model, involving a sector specific intermediate good, monopolistic competition, this paper shows that introduction of a tax on labour in each of the three sectors can have a different effect on skilled-unskilled wage inequality. The three sectors considered in this paper are: an industrial sector, an agricultural sector and an intermediate good sector. The industrial sector utilises skilled labour, capital and the intermediate good. The intermediate good is produced by means of skilled labour and capital. The agricultural sector

utilises unskilled labour and capital. The industrial sector is capital intensive as compared to the intermediate good sector, which is relatively more capital intensive as compared to the agricultural sector. The paper first consider the case where all goods are internationally traded.

The theoretical analysis presented in this paper suggests that, when all goods are traded, a tax on labour in industrial sector increases the skilled-unskilled wage inequality. However, a tax on labour in intermediate good sector decreases the skilled-unskilled wage inequality. When the intermediate good is traded, a tax on labour in each of the industrial good and the intermediate good sectors decreases the skilled-unskilled wage inequality. On the other hand, irrespective of whether or not the intermediate good is internationally traded, a tax on labour in agricultural sector increases the skilled-unskilled wage inequality.

This research can be further extended to examine the role of tax partial taxation of labour income on skilled-unskilled wage inequality within the context of a product varieties model where at least one sector of the economy is subject to monopolistic competition. This can also allow one to compare the short-run and long-run results.[9] Other possible extensions include the introduction of a public input and/or unemployment in the model.

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