

Distributional Impact of Public Enterprise Labour Policies in Pakistan

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1. INTRODUCTION

Employment generation has been one of the goals of creating or maintaining government-owned enterprises in the past. In fulfilling this role public enterprises often played the role of the model employer see Lakshman (1984). In the current policy atmosphere both domestically and internationally, there is a trend to limit the size of government intervention in the economy. In Pakistan the privatisation of industrial units and the planned divestiture of infrastructural units like Water and Power Development Authority (WAPDA), Karachi Electric Supply Corporation (KESC) and Pakistan Telecommunication Corporation (PTC) is changing the mix of public-private domain in economic activity.

What would be the impact of labour retrenchment in the former public enterprises? Estimates show that there has been a 42 percent reduction in employment in the recently privatised units [Naqvi (1994)]. If the government reduces the public sector workforce and cuts back the liberal remuneration package to public employees, which groups would benefit from such a move? These questions have been analysed in the context of a computable general equilibrium (CGE) model. Section 2 describes the model. This is followed by a brief discussion of the data. Model simulation results are discussed in Section 4 and the conclusions are presented in Section 5. The Appendix contains the equations referred to in the text.

2. THE MODEL

Production

The model consists of six types of producers, plus the government (non-public enterprise) sector. The producing sectors consist of two public enterprises (PE-LM and PE-INF), small and large private farmers (AGS and AGL) and

small and large private non-agricultural producers (SM and LM).¹ Both type of farmers produce the same good, whereas all other non-agricultural sectors, both public and private, produce one unique good in their respective sectors.

The public enterprises have been categorised into two groups because output pricing rules, market structures and labour efficiency differ for these two types of public units.² The private sector has been divided into the agricultural and non-agricultural sectors because of the relative importance of these sectors in the Pakistani economy. The distinction between small and large private producers is based on the observation that large-scale producers are often the beneficiaries of the state's control over the economy.

The production function of both types of agricultural producers (AGL and AGS) and the small scale non-agricultural producers (SM) are described in Equation 1. The assumption of competition and fixed capital (and land) implies that supply responses are upward sloping with respect to relative prices in these three sectors (AGS, AGL and SM) as shown in Equations 2 and 3. Market forces determine the output price in the small-scale non-agricultural sector (SM), whereas in the agricultural sector, farmers receive government-fixed procurement prices for their output.³

Both the public enterprises (PE-LM and PE-INF) and the large-scale non-agricultural sector (M) are assumed to have markup pricing rules indicating the existence of excess capacity and resulting in horizontal supply correspondences.⁴ The markup is determined over cost of intermediate inputs (both domestic and imported) and the labour cost of skilled and unskilled workers (see Equations 4-5 in the Appendix). In the private large scale non-agricultural sector (LM) the final sale price consists of a fixed markup over prime costs and ad valorem indirect taxes (Equation 6). In the public enterprise sector, the government fixes the

¹The details of industries corresponding to the input-output sectors and National Accounts categories are available with the author.

²The data indicate that infrastructural public enterprises (PE-INF) are typically larger units which dominate their respective industry, are often the recipients of government subsidies, and are observed to be more inefficient in labour use compared to the public industrial enterprises (PE-LM). Evidence to support these claims can be seen in Naqvi (1994).

³Not all agricultural output in Pakistan is covered by government's procurement policy. As the major crops are covered and since there is only one agricultural good in the model, we assume the existence of full coverage.

⁴This is a strong assumption, which implies the existence of immense excess capacity in the public sector. By mid 1980s, supply constraints were not an important issue in public industrial enterprises. There were supply constraints in some infrastructural enterprises, but these have not been dealt with in the model.

consumer price and the difference between this price and the marked-up retention price is either a per unit indirect tax or subsidy which is endogenous (Equation 7).⁵

Labour Market

Labour markets are segmented by skill levels and by wage and employment policies of public enterprises. For *unskilled* workers, public sector employment carries a premium over counterpart private jobs.⁶ Workers first seek public employment and take up private sector jobs only if coveted public employment is unavailable. Both types of farmers (AGL and AGS) and small-scale non-agriculture producers (SM) have downward sloping labour demand curves with respect to the market wage rate (Equation 9 in the Appendix). Labour demand in the public sector (PE-LM and PE-INF) and large-scale non-agricultural sector (LM) are in fixed proportion to their respective output (Equation 10 in the Appendix). The observed public sector labour redundancy and *x*-inefficiency has been captured by $\gamma_i > 0$ in both public enterprises. Unskilled labour supply is assumed to be fixed in the short run.⁷ Thus, output changes in the public sector have a direct influence on private labour supply, creating tight conditions as public sector output expands. Market wages adjust to clear the private sector labour market.

*Skilled Workers*⁸ are only employed in the large-scale non-agricultural enterprises and the two public enterprises (PE-LM and PE-INF). Labour demand in all three types of industries is in fixed proportion to output (Equation 11 in Appendix) and wage rate for skilled workers are exogenously determined.⁹ The skilled labour market adjusts by changing employment levels rather than wages.¹⁰

⁵See Mehdi (1987) and Jones (1981) for a discussion of pricing rule of Pakistani public enterprises.

⁶Nominal wages in both public enterprises have been modelled as a fixed ratio above market wages (see Equation 8).

⁷This corresponds to the tight labour market conditions existing in Pakistan from the late 1970s to the mid-1980s largely due to labour emigration to the Middle East.

⁸Skilled worker are defined as white collar and managerial workers, not skilled production workers.

⁹Although the nominal pay scale for skilled workers in public enterprises is seen to be lower compared to the private sector, nominal wages are assumed equal in the model. This assumption stems from the high observed mobility of skilled workers between public and private jobs. It is assumed that the non-pecuniary benefits available to public enterprise managers equate the apparent wage gap, and both earn comparable real incomes.

¹⁰Another alternative with nested Cobb-Douglas/CES production function for LM sector was tried but later rejected in model validation exercises.

Incomes

Incomes are generated from production activities in the public and private sectors, from exogenous worker remittance payments from abroad (Yrem), and exogenous government transfers to low income households. The income recipients are six type of households—agricultural and non-agricultural, and within each group poor, middle income and rich. The mapping of functional incomes to households is shown in Appendix Table 1.

Demand

Aggregate demand is the sum of intermediate input demand, final consumption, investment demand, government demand and exports. The model assumes fixed coefficient demand for both domestic and imported intermediate inputs. Investment demand (of imported and domestic capital goods) and real government expenditures are assumed to be exogenous. The consumption demand for all types of households is endogenous and specified by the Linear Expenditure System (LES).¹¹

Trade Module

The largest share of imports consist of non-competitive intermediate inputs used in fixed proportion to sectoral output with domestic price described in Equation 12 in the Appendix.¹² In addition, there are imports of capital goods, which have exogenous demand and bought at fixed world prices.¹³ A single public enterprise procures agricultural goods for exports if domestic supply exceeds home demand, or imports them, if there is domestic excess demand, at given domestic procurement prices (see Equation 15 in the Appendix). The assumed state control of agricultural trade, implies that procurement prices prevail in the country and differences between domestic and world prices, with typical small

¹¹The model assumes households to consume after setting aside savings and paying direct taxes. The average savings rates differ across households with agricultural and non-agricultural poor not saving anything. Direct taxes are levied only on non-agricultural rich and middle income groups in the base run, reflecting the bias of Pakistan's income taxation structure.

¹²This specification assumes that intermediate goods can imported without any quantity restriction or non-tariff barriers. In reality, Pakistan's trade regime is highly restrictive with both tariff and non-tariff barriers. As the main focus of import-substituting bias is on competitive imports of consumer goods, we assume these to equal zero, indicating binding trade restrictions for these goods.

¹³The capital goods imports have been included here due to their significance in the Pakistani data but do not play a role in the model.

country assumption (Equation 13), are absorbed as profits or losses of state trading.¹⁴

Non-agricultural exports arise only in the private sector with no exports by public industrial enterprises.¹⁵ These exports have downward sloping demand with respect to (foreign currency) price of exportable, implying a weaker version of the small country assumption (Equation 14).

Closure Rule

There are seven excess demand equations, five for goods and two for the labour market. Quantity adjustments clear the market in both public enterprises, in the agricultural sector, and the skilled labour markets, where nominal price and wages are exogenous, respectively. Market clearing takes place by price adjustments in the unskilled labour market and private non-agricultural goods markets. The exchange rate is exogenous so foreign balances adjust to bring about the macroeconomic equilibrium. The model has an "investment driven" closure rule, implying that adjustment to exogenous shocks takes place by savings of households, government or rest of the world accommodating to bring about the new equilibrium.

3. DATA

A social accounting matrix was constructed as the data base for simulation purposes. 1986-87 was chosen as the base year as it corresponded with the initial changes in government policies toward the public sector. Details of construction of the social accounting matrix, model calibration and validation is present in Naqvi (1994). The model showed good predictive behaviour in the short-run and hence has been used for simulation purposes.

4. SIMULATION RESULTS

The simulation exercises concentrate on the changes in labour policies in the public sector. If the government reduces the work force or removes the wage subsidies for public workers what would be the impact of these changes on the

¹⁴The activities of Cotton Export Corporation (CEC) and Rice Exporting Corporation and the government's involvement in the import of agricultural goods in case of poor agricultural output motivated this formulation.

¹⁵Trade by public industrial enterprises (PE-LM) has not been modelled because of their negligible share in export and the import-substituting nature of production.

economy? These conditions could come about either due to hard-nosed reform in the public enterprises or could result in a post-divestiture situation. Counter-factual simulation exercises have been performed for the following cases:¹⁶

1. A 20 percent reduction in employment in public infrastructural enterprises (PE-INF);
2. a 20 percent reduction in employment in public infrastructural enterprises (PE-INF) and a 5 percent reduction in employment in public industrial enterprises (PE-LM);
3. removal of the wage subsidy in public enterprises; and
4. removal of public sector wage subsidy and labour retrenchment.

Table 1 shows the impact of public sector labour policy changes on aggregative macroeconomic variables. In all cases we see that employment and wage reduction in the public enterprises would result in contractionary outcomes in the economy in the short run as seen in falling real output and declining price level (CPI).¹⁷ Domestic absorption is reduced by the changes in labour policies with the largest reductions coming from decrease in government consumption (G). Reduced domestic consumption generates a larger exportable surplus and hence an increase in export earnings (E). In all the simulations, government savings increase (Sg) and there is a concurrent reduction in private savings (Sp) and foreign savings (Sf).¹⁸ Thus the results show that labour retrenchment and/or the removal of liberal wage compensation in the public sector brings about curtailment in domestic demand which improves the fiscal and foreign balances but lowers domestic private saving capacity.¹⁹

¹⁶The percent changes in employment are merely illustrative. Only 5 percent reduction in public industrial enterprises (PE-LM) has been simulated due to the limited evidence of labour redundancy in PE-LM at an aggregative level. As there was more evidence of inefficient labour use in the infrastructural sector a higher percent reduction has been simulated in the PE-INF sector. However, the linearity in the model implies that these results would hold for different percentage changes in employment and wages as well.

¹⁷One can argue that firing redundant public workers should improve enterprise efficiency and hence aggregate output. The model does not deal with issues of changes in labour productivity and its effects on economic growth, hence these results should be interpreted as short-run effects of policy changes.

¹⁸The large reduction in Sf shown in Table 1 is due to the small base number and should be interpreted with caution.

¹⁹Only macroeconomic and distributional impact of policy changes have been discussed here due to space limitation.

Table 1
Impact of Policy Changes on Macroeconomic Variables
(Percent Change from Base)

	Reduct. in PE-INF Labour	Reduct. in PE Labour	Removal of Wage Subsidy	Reduct. in PE Labour and Wage Subsidy
	(1)	(2)	(3)	(4)
CPI	-0.23	-0.24	-0.11	-0.33
RGDP fc	-0.75	-0.78	-0.50	-1.18
RGNP fc	-0.69	-0.71	-0.46	-1.08
Cp	-0.82	-0.86	-0.55	-1.30
G	-1.21	-1.27	-0.11	-1.35
E	5.81	6.08	1.81	7.53
M	-0.09	-0.09	-0.17	-0.23
I	-0.05	-0.05	-0.02	-0.06
Sg	23.09	24.15	9.03	31.35
Sp	-0.56	-0.59	-0.43	-0.93
Sf	-59.47	-62.22	-20.89	-78.89
S	-0.05	-0.05	-0.02	-0.06

Note: CPI Consumer Price Index.
 RGDP fc Real gross domestic product (GDP) at factor cost.
 RGNP fc Real gross national product (GDP) at factor cost.
 Cp Private consumption expenditure.
 G Government expenditure on goods and services.
 E Exports of goods and non-factor services.
 M Import of goods and non-factor services.
 I Gross domestic capital formation.
 S Total savings.
 Sg Government savings.
 Sp Domestic private savings.
 Sf Foreign savings (= negative current account deficit).

The income distributional effects of public enterprise wage and employment policy changes can be seen in Table 2. All simulations show that public enterprise workforce retrenchment and/or wage reforms would hurt the non-agricultural households and would improve the incomes of agricultural households. Among

the *agricultural households* the largest beneficiaries are the upper income households, followed by poor households and the middle income groups.²⁰

Table 2
Impact of Policy Changes on Income Distribution
(Percent Change from Base)

	Reduct. in PE-INF Labour	Reduct. in PE Labour	Removal of Wage Subsidy	Reduct. in PE Labour and Wage Subsidy
	(1)	(2)	(3)	(4)
Yap	1.22	1.27	0.26	1.48
Yam	1.08	1.13	0.28	1.35
Yar	2.07	2.17	0.40	2.49
Ynp	-2.79	-2.92	-1.56	-4.17
Ynm	-0.93	-0.97	-0.41	-1.30
Ynr	-0.72	-0.75	-0.45	-1.11

Note: Yap Income of poor agricultural households.
 Yam Income of middle agricultural households.
 Yar Income of rich agricultural households.
 Ynp Income of poor non-agricultural households.
 Ynm Income of non-middle agricultural households.
 Ynr Income of non-rich agricultural households.

In the *non-agricultural sector*, the obvious group hurt most by policy changes are the public sector workers who are laid off or who encounter a cut back in the wage subsidy. In addition, the reduction in real wages in the unskilled labour market lowers the incomes of all unskilled workers. The middle income non-agricultural households experience a direct fall in their incomes because of a reduction in the skilled labour force in the public sector (all skilled workers belong

²⁰This impact on the rural household distribution critically depends on the existence of government's agricultural procurement policy. On the one hand, this policy protects farmers from the negative impact of demand contraction induced by public sector labour policies and on the other hand they benefit from lower real wages caused by public sector employment contraction. In addition, the farmers also benefit from the price controls on inputs produced by the public enterprises assumed in the model. The combined effect is that a larger agricultural surplus is produced and fully procured by the government, with the larger surplus producers (i.e. the larger farmers) differentially benefiting from public policy changes. Output growth results in higher labour demand in the agricultural sector which benefits the lower income households as well.

to this income group in the model). Indirectly, the contractionary effects reduce incomes of quasi-rent earners in the small and large-scale non-agricultural sector who belong to the middle-and upper-income households respectively.

In general the effects of public sector wage and employment reforms on income distribution are regressive. The aggregate income of poor households declines post-reform even though the lower income agricultural households gain due to output effects. The worst hit are the lower income non-agricultural households with lower negative impact on middle and upper income households in the non-agricultural sector and large positive gains in upper income agricultural households.

5. CONCLUSIONS

A few broad conclusions emerge from the paper.

1. Large-scale labour retrenchment from public enterprises which is being reported from the privatised industrial units or which may come about after the proposed divestiture of infrastructural units (e.g. WAPDA, PTC), would have a contractionary short-run impact, unless supported by well designed compensatory schemes for the dismissed workers.
2. The distributional effects of labour retrenchment and wage subsidy removal are regressive. The major brunt of these exogenous changes are borne by lower income non-agricultural households, and there are negative effects on all urban households. On the other hand, the biggest beneficiaries of these policy changes are the larger farmers (and rich agricultural households) who benefit from changes induced in the labour market plus the existence of public sector price controls and government's procurement policies.
3. The urban-bias of earlier public sector labour policies are confirmed by the simulation results.

Model Equations

$$Q_j = \min(Q_j/a_{ij}^{21}, L_j^{\alpha_j} K_j^{1-\alpha_j}) \quad j = AGL, AGS, SM \quad \dots \quad (1)$$

$$Q_j = (\alpha_j \cdot PN_j/wm^u)^{\alpha_j/1-\alpha_j} \cdot K_j \quad j = AGL, AGS, SM \quad \dots \quad (2)$$

$$PN_j = P_j^c - \sum_i P_i^c \cdot a_{ij}^d - v_j^m \cdot P_j^m \quad j = AGL, AGS, SM \quad \dots \quad (3)$$

$$P_j^p = (1 + \tau_j) \cdot (MC_j) \quad j = LM, PE - INF, PE - LM \quad \dots \quad (4)$$

$$MC_j = \sum_i P_i^c \cdot a_{ij}^d + v_j^m \cdot P_j^m + w_1^u \cdot l_j^u + wm^s \cdot l_j^s \quad \dots \quad (5)$$

$j = LM, PE - INF, PE - LM$

$i = PE - INF, PE - LM, LM, SM, AGL, AGS$

$$P_j^c = (1 + \delta^{lm}) \cdot P_j^p \quad j = LM \quad \dots \quad (6)$$

$$t_j = P_j^c - P_j^p \quad j = PE - LM, PE - INF \quad \dots \quad (7)$$

$$wl^u = (1 + h) \cdot wm^{u22} \quad \dots \quad (8)$$

$$ld_j^u = (\alpha_j \cdot PN_j/wm^u)^{1/1-\alpha_j} \cdot K_j \quad j = AGL, AGS, SM \quad \dots \quad (9)$$

$$ld_k^u = l_k^u \cdot (1 + \gamma_i) \cdot Q_k \quad \left\{ \begin{array}{l} k = PE - INF, PE - LM, LM, \dots \end{array} \right. \quad (10)$$

$$ld_k^s = l_k^s \cdot (1 + \gamma_i) \cdot Q_k \quad \left\{ \begin{array}{l} i = PE - INF, PE - LM \dots \end{array} \right. \quad (11)$$

$$P_j^m = e \cdot (1 + t_j^m) \cdot P_j^w \quad \dots \quad (12)$$

$j = AGS, AGL, SM, PE - INF, PE - LM, LM$

$$P_a^t = e \cdot P_a^w \quad a = AGL, AGS \quad \dots \quad (13)$$

$$E_j = \sigma_j \cdot (P_j^c/P_j^x)^{\beta_j} \quad j = LM, SM \quad \dots \quad (14)$$

²¹ a_{ij} includes both domestic and imported inputs.

²² $h = 0$ in LM sector.

$$TR^a = Q_s^a(P^a) - DomD^a(P^a) \quad a = AGL, AGS \dots \dots \dots (15)$$

Exports if $Q_s^a(P^a) > DomD^a(P^a)$

Imports if $Q_s^a(P^a) < DomD^a(P^a)$

Glossary

PN_j = net prices faced by j th producer

P_i^c = market price of i th good

P_j^m = domestic currency price of non-competitive imports in the j th sector

P_j^p = producer/retention price in the j th sector

P_a^t = domestic currency price of agricultural exports/imports

P_a^w = world price of agricultural export or import (in \$)

Pa = domestic procurement price of agricultural commodity

P_j^w = world price of j th intermediate import (in \$)

P_j^x = foreign currency price of j th exportable good ($j = LM, SM$) ($= P_j^{c/e}$)

P_j^e = world price of j th export (in \$) ($j = SM, LM$)

MC_j = marginal (= average variable) production cost in the j th sector

e = nominal exchange rate (Rs per \$)

wm^u = market wage rate for unskilled workers

w^u = nominal unskilled wage rate in the public sector

wm^s = market wage rate for skilled workers

Q_j = supply function of the j th producer

L_j = unskilled labour input in j th producer

K_j = capital stock in j th sector

ld_j^u = unskilled labour demand in j th sector

ld_k^u = unskilled labour demand in k th sector

ld_k^s = skilled labour demand in k th sector

E_j = export demand in the j th sector ($j = LM, SM$)

TR^a = trade volume in agricultural goods

$Q_s^a(p^a)$ = total agricultural supply at procurement price p^a

$DomD^a(p^a)$ = domestic demand of agricultural good at price p^a

α_j = labour share in j th sector ($j = AGL, AGS, SM$)

- α_{ij}^d = input-output coefficients of domestically produced goods
 v_j^m = composite imported input coefficient in j th sector
 t_j = indirect unit tax (subsidy) in the j th sector
 τ_j = markup rate in the j th sector
 δ^{lm} = indirect tax rate in the LM sector
 h = wage premium in public enterprises
 γ_i = labour redundancy factor in public enterprises
 ($i = PE - INF, PE - LM$)
 l_k^s = skilled labour-output ratio in the k th sector
 l_k^u = unskilled labour-output ratio in the k th sector
 t_j^m = import tariff rate in the j th sector
 β_j = price elasticity demand for j th export ($j = SM, LM$)
 σ_j = base export demand of j th good ($j = SM, LM$)

Appendix Table 1

Mapping of Functional Income into Household Incomes

Household Type	Sources of Income
1. Non-agricultural Poor (Ynp)	$YLusm + YLulm + YLupe - lm + YLupe - inf + Yugovt$
2. Non-agricultural Middle (Ynm)	$+ \phi_i . Yrem + \eta_i . TRg$ $YLspe - lm + YLspe - inf + YLslm + YZsm + Ysgovt$
3. Non-agricultural Rich (Ynr)	$+ \phi_i . Yrem$ $YZlm + \phi_i . Yrem$
4. Agricultural Poor (Yrp)	$YLagl + YLags + \phi_i . Yrem + \eta_i . TRg$
5. Agricultural Middle (Yrm)	$YZags + \phi_i . Yrem$
6. Agricultural Rich (Yrr)	$YZagl + \phi_i . Yrem$

Note: $YL(\dots)$ = labour income from (\dots) sector.

$YZ(\dots)$ = quasi-rents from (\dots) sector.

$Ygovt$ = income from government service.

$Yrem$ = income from foreign remittance.

TRg = government transfers to households.

ϕ_i = share of remittance income to i th household ($\sum_i \phi_i = 1$).

η_i = share of government transfers to i th household ($\sum_i \eta_i = 1$).

u = unskilled.

s = skilled.

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Comments on
“Distributional Impact of Public Enterprise
Labour Policies in Pakistan”

In the wake of the current debate on the implications of privatisation this paper is a timely addition to the growing literature on the subject. The paper studies the implications of labour retrenchment policies of public enterprises on macroeconomic variables and income distribution. To analyse these the author has used a CGE model which has been frequently utilised by those who analyse the average effect of structural adjustment programmes. I shall divide my comments into two parts; the first devoted to some remarks on methodology, and the second on results.

If an analysis of different policy scenarios, such as different combinations of policy or different timing of policies, is desired, then a model must be constructed to perform simulations. The complexity of economic inter-relationships suggests that models of a general equilibrium genera, such as SAM/CGE model, be used. A potential problem faced by a SAM is the data and time requirements; if data are not available and estimates are made, then the model may move away from economic reality, that is, if the model uses ‘borrowed’ parameter values, estimated in other studies then results can be sensitive to their use. On the other hand, if large structural changes are to be simulated then the exogenous parameter values based on historical estimates may not be relevant; behavioural parameters estimated under the old regime may not reflect behaviour in the economy following any structural adjustment. Another problem which the author may have also faced is the identification of the sector of activity for the household. Household surveys usually show that households earn income from a variety of sources, for example, agricultural households supplement their income from engaging in non-agricultural activities. Similarly, the CGE model provides results on the mean income of different socio-economic groups, but to measure the impact on say poverty, some estimate, of how this income is distributed within the group is also needed. For example, if the mean real income of small farmers increases, it is not clear that any of the poor small farmers receive the increase. While interpreting the results of the paper one must keep in front these limitations of the methodology.

Let me now turn to the specification of the model. In the production bloc the author should have included the financial sector just like the infrastructural sector as it accounts for 36.4 percent of employment in the public enterprises in Pakistan, a figure even higher than that for public sector manufacturing enterprises (i.e., 33.1 percent in 1989-90). Similarly, it would have been logically more interesting to see the private large-scale manufacturing sector as a separate sector in the model instead of lumping it with the private non-agricultural sector, because the private manufacturing sector is the one which is going to absorb the retrenched labour.

While modelling wages of skilled workers it has been assumed that there is a high labour mobility between the public and private sectors but I think the general perception is contrary to this, that is, once in a job always in the same job. This is why we observe a long job search period in the case of Pakistan. So the assumption of wage equality across sectors should be made with great caution.

As far as income bloc is concerned I have already mentioned that it would be better if income earned from different sources is linked together to capture the reality.

In the trade bloc tariff equivalents should have been used to cover the non-tariff barriers which are still prevalent in Pakistan instead of ignoring them altogether. I do not see any reason why export taxes and subsidies are ignored in the model. Similarly, it would have been better to endogenise the exchange rate as is done in the PIDE econometric model.

Coming to the results of the study. Some confusion arises because the way estimation is performed is not reported. It is not clear from the paper as to why the figures of 20 percent reduction in employment in public infrastructural enterprises and of 5 percent reduction in employment in public industrial enterprises are selected. The paper tells us a 'good news' for the rural areas. The rural area is going to enjoy higher production and better income distribution as a result of labour retrenchment policies in the public enterprises. The core result is the impact of labour retrenchment policy on real GDP and real GNP, while all other results flow from it. The striking result is contraction in GDP as a result of labour retrenchment policies. Even though this is a short-run outcome but it is hard to believe for a country like Pakistan. Only if one has a familiar 'surplus' argument in the presence of positive marginal productivity only then can one imagine of a contractionary outcome of labour retrenchment policy but who is going to believe this argument. In fact the data reported in the Annual Report of Public Sector industries show that employment between 1989-90 and 1990-91 has

gone down by 2.64 percent while the production index shows a two point increase. At the same time the average monthly salary and wages per employee in nominal terms rose by 21.12 percent. Similarly, Kemal while analysing four enterprises, that is National Fibres Limited, Millat Tractors, Muslim Commercial Bank Limited and Habib Bank Limited, observed "a very slow increase in employment despite a sharp increase in output". In one of these cases he noted that employment actually fell despite a sharp increase in production. Given these facts it is hard to reconcile with the findings of the paper.

In the absence of any discussion on sectoral linkages it is not altogether clear that how large exportable surpluses are generated in the agriculture sector. You cannot shift labour, especially skilled, from public enterprises to the agriculture sector to increase the output of this sector. Besides many studies have shown the limited absorptive capacity of this sector.

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