

Impact of taxation on employment and unemployment



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The research done Kemmerling (2002) tries to bridge the gap between economic approaches and macro-institutional approaches to welfare state regimes. Different regimes of welfare state taxation should lead to different economic outcomes in terms of unemployment. He considers four key questions come to the fore. First how unsafe was taxation in industrialized countries for employment? Taxation should be linked to different types of welfare states on the one hand and shape labor market outcomes on the other. Second how do these effects vary in a chronological and cross-country dimension? This leads to the search for structural breaks and different institutional settings governing the “ tax-employment link.” Third which were the sectors that experience most from high taxation? It has to be shown whether low-wage jobs were mainly prone to tax-induced crowding out and whether this shows up on a collective level. Finally and most importantly was there an optimal tax-mix that mitigates the trade-off between efficiency and redistribution?

To a certain degree the empirical results of this paper corroborate the idea that tax-mixes matter. The importance of taxation especially of social security contributions and utilization taxes accounts for a deceleration of employment growth in OECD countries. Moreover the structure of taxation also matters for the number of unemployed people.

Payroll taxes which were defined as the percentage of non-wage labor costs to wages differ widely. On the one end was Denmark which charge nearly no payroll on taxes. At the other end were Italy and France which charges around 40 percent payroll taxes of total wages. The total tax load which was based on national income accounts shows a smaller amount of difference but

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on the other hand vary significantly (Heitger, 2002). The statistics shows the variation from 28.7% in Australia to 70.7% in Sweden. These data point out the size of the tax wedge in the labor market-that was, compute the difference between real labor cost and real take-home pay and thus give an enhanced sense of the real tax load on labor (Nickell, 1997). The differences between Europe and non-Europe countries with respect to labor market firmness seem to be to a certain extent great. This was mainly true for OECD countries where total tax rate in 1989-94 was 48.2 percent but was 51.8 percent in Europe as compared with 37.3 percent in non-Europe.

Kemmerling (2002) conclude that for quite some time economists had modeled the impact of taxation on unemployment or employment. The major conclusion reach was twofold: First unemployment was only reasonably influenced by taxation in the long run. Second it was the total tax burden that matters for employment but not essentially the mix of different forms of taxation. Both ideas were somewhat at odds with the resurgent discussion about the apparent "under-performance" of low-wage sectors in European economies. The usual suspect was the taxation of labor which was in the forms of income taxes or social security contributions. But how do consumption taxes fit into this picture? Prima facie should be particularly harmful for these sectors because it reduces both the demand and supply for low-wage labor (e. g. Scharp, 2000a).

The basic framework for an analysis of the incidence of taxation was the standard microeconomic approach to labor supply. Taxation leads ceteris paribus to a changeover effect: work was moreover replaced by more spare time by other sources of income or by an increased amount of work in the

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future (Gustafsson, 1996; Blundell, and MaCurdy, 1999). It had also led to the utilization of goods that were less labor-intensive. The main underlying mechanism was a “wedge” between gross and net wages. A lower net wage leads to a smaller supply of labor. Only if the income effect (IE) of taxation surpasses the substitution effect (SE) does the labor supply increase. Microeconomic studies had shown that certainly for some social groups such as single mothers IE dominates SE (e.g. Blundell, 1995). Kemmerling (2002) had expected a more customary scenario on an aggregate level for whole sectors of an economy or even for the entire labor market. In other words the labor supply should be elastic. On the other hand this had served as a warning of the gendered pattern of economic sectors across countries a pattern that could deform empirical results.

Kemmerling (2002) Switching to a macro point of view of the labor market the analytical framework becomes much more multifaceted even for the case of a closed economy. Supposed wages were flexible; the increase of a payroll tax for example payroll depends on the elasticity of the labor supply. Inelastic supply leads to lower net wages while entirely elastic supply leads to lower levels of employment (Gustafsson, 1996). Reviewing a large body of empirical literature Hamermesh (1993) concludes that the greatest burden of taxation lies on wages. On the collective level employers were able to roll over extra labor costs onto labor itself. In a similar vein Bauer, and Riphahn (1998) argue that a cut of payroll or general taxation had only diffidently improved German labor market performance rates in both employment and unemployment.

Layard and Nickel (1999) Labor taxes affect unemployment in the short run and perhaps in the long run; labor values and employment security do not seem to produce high unemployment in some OECD countries. Layard and Nickel (1999) argue however that employment security increases long term unemployment and reduces short term unemployment.

Baker, Glyn, Howell, and Schmitt (2002) point out those simple correlations between rigid labor market institutions and unemployment often shows no relationship. Baker, Glyn, Howell, and Schmitt (2002) produce various scatter plots between OECD indicators for labor market institution and the unemployment rate. For example it cannot set up a significant positive correlation between the unemployment benefit replacement rate and unemployment in 20 OECD countries from 1980 to 1999. Furthermore the relationship between benefit duration and unemployment bargaining coordination and unemployment union density and unemployment or labor taxes and unemployment for the same sample was vague. In addition there was no confirmation that countries which had managed to deregulate their labor markets in the 1990s had experienced a lower NAIRU.

Belot, and Ours (2001) present a stylized model of how interactions affect unemployment. Consider two sets of labor market institutions those who affect the incentive structure in the labor market (labor taxes, unemployment benefits) and those which were structural (union bargaining, union density, and bargaining and employment protection).

An even greater impact of direct taxes on labor supply had occurred where there was inter-temporal substitutability of labor supply across time periods

(Barra, 1997). Nevertheless the confirmation suggests that this elasticity of substitution was rather small in practice at least in the United States (Altonji, 1982; Mankiw, Gregory, Rotemberg and Summers, 1985, Ham, 1986). Taxes on labor had also negatively affect the return on investing in human capital (Heckman, 1976) but the net return to human capital depends both on the tax on labor and whether the cost of investing in human capital was itself affected by the tax structure (King and Rebelo, 1990).

Layard, et al (1991) in his model equilibrate the equilibrium levels of unemployment and real wages were given by the interface between the “target real wage” which was the real wage steady with wage bargaining for any given level of unemployment and duration

Structure and the “feasible real wage” which was in essence a dynamic demand curve. In the Layard and others model as in the Beveridge Curve approach (Blanchard and Diamond, 1989) a high portion of long term unemployed can lead to a higher level of measured unemployment steady with long run economic equilibrium. Budd, Alan, Levine and Smith (1988) find some support for this proposition in the United Kingdom.

From a theoretical point of view there were two reasons for an asymmetric trade between labor taxes and unemployment. First the insider-outsider distinction (see e. g. Blanchard and Summers, 1986; Lindbeck, and Snower, 1987) had rise to an asymmetric response. Briefly it states that insiders (those currently employed) were insulated from competition of outsiders (those currently unemployed) due to labor turnover costs (i. e. costs associated with hiring training and firing). As a result insiders had scope to

push wages above the market-clearing level i. e. it had used their privileged position to shift the tax burden to the employer (resulting in higher unemployment) in response to an increase in taxes and try to push for higher net wages (instead of lower unemployment) in response to a decrease in taxes.

The second reason for asymmetry was asymmetric labor adjustment costs. Different costs for hiring and firing imply a different speed of adjustment for employment and hence unemployment in response to a labor market shock. A large literature provides considerably empirical evidence in support of asymmetries in labor demand. Using various different techniques and functional forms (Holly, and Turner, (2001); Pfann, and Palm (1993); Burgess, (1992a, b); Hamermesh, and Pfann, (1996) show that there were asymmetries in labor demand due to asymmetric adjustment costs.

Findings

Heitger, (2002) suggest that whether taxes were exogenous or endogenous it appears to depend on the fundamental significance level. But if level of 95 percent was applied on total tax rate then must be measured as exogenous with respect to the total unemployment rate. Thus the original estimation seems to be impartial and reliable. However in short-term and long-term unemployment rates things could be different. One had anticipated that in the case of long-term unemployment rate a simultaneity problem exists. The reason was that higher government expenditures and long-term unemployment seems to leads towards a higher total tax rate. Thus the relationship between long-term unemployment and taxation had possibly been equally reinforcing.

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Replacement rate in active labor market policies union compactness employer's management and the total tax share put forth a major impact on the short-term unemployment rate. These factors of the labor market drastically explain 57 percent of short-term unemployment in OECD countries (Heitger, 2002).

In OLS equation advantage period active labor market policies employer's management and the total tax rate all turn out to be important parameters for long-term unemployment. The residuals from secondary regression turn out to be important at the 95 percent significance level (Heitger, 2002).

Daveri, and Tabellini (2000) analyze the effect of labor taxes on unemployment and find strong correlations. In particular in countries with high unionization the effect of higher labor taxes on labor costs and hence on unemployment was stronger.

Daveri, et al (2000) an important step in our argument was that the unemployment effect of labor taxes depends crucially on the wage-setting institutions. Thus the variety in labor market institutions across OECD countries was useful.

Nickell, Nunziata, and Ochel (2005) in his GLS panel regressions establish the following effect for institutions: Employment protection and employment taxes had a positive effect on unemployment. The impact of taxes however was fairly small and countries with high bargaining coordination reverse this positive effect. Employment protection primarily has an impact on unemployment persistence. The benefit replacement rate has an important positive effect on unemployment and magnifies through the interaction with <https://assignbuster.com/impact-of-taxation-on-employment-and-unemployment/>

benefit duration. There was no significant influence of union density on unemployment; however positive changes in union density were associated with higher unemployment. One interpretation was that increasing union pressure drives up wages and has hence negative effects on employment. When union density stabilizes this effect seems to die away. Finally Nickell, Nunziata, and Ochel (2005) find a positive effect of owner occupation on unemployment; however this effect was not very significant.

Disney (2000) finds that direct taxes on labors only affect employment and unemployment if either labor supply was inelastic or labor markets were not competitive and union-employer bargaining was not coordinated. Empirical findings suggest that the labor supply response to tax changes of a regular full-time worker was probably inelastic. There was also evidence that in general workers cannot pass on tax changes since direct tax “wedges” correlate negatively with labor shares. Moreover wage setting arrangements should be based on wages net of all taxes borne by workers including consumption taxes. Poorly designed tax and welfare benefit structures therefore had significant effects on employment and unemployment in the aggregate. A task for future research was to integrate these common behavioral responses to high effective marginal tax rates in a variety of settings into a macroeconomic model of the labor market and of the economy as a whole.

In continental Europe the effective tax rate on labor income (inclusive of social security contributions) rose from 28% in 1965-70 to 42% in 1991-5.

During the same period the average unemployment rate went up from 2.1% to 10.5% the growth rate of per-capita GDP fell from 4.2% to 1% per year
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and the investment share over GDP fell from 27.5% to 24.5%. According to our estimates a tax increase of this magnitude can account for a rise of 4 percentage points in unemployment (about half of the actual one) a growth slowdown of about 0.4 percentage points a year (about one-seventh of the actual one) and a fall in the investment share of almost 3 percentage points (the entire fall in the investment share). No such effect was present in either Anglo-Saxon or Nordic countries (Daveri, et al 2000).

Berger, and Everaert (2008) in his research finds that there was a significant positive impact of increases in labor taxes on unemployment in both the EUCON and the NORDIC group with the impact being more moderate in the latter. These results confirm earlier studies in the literature which typically do not distinguish between increasing and decreasing taxes. These results confirm earlier studies in the literature which typically do not distinguish between increasing and decreasing taxes. However the majority of previous estimates cover a period in which labor taxes were persistently increasing. By using more recent data and thus covering the recent decrease in taxes (Berger, and Everaert, 2008) finds that there was clear evidence of asymmetry in the EUCON and the NORDIC group i. e. the point estimate of the impact of tax decreases as measured by $\hat{\beta}_1 + \hat{\beta}_2$ was considerably lower and not statistically significant different from zero as the t-test indicates.

Chapter 3

Research Method

Data collection

Secondary data of thirty years comprised on yearly basis from year 1978 to 2008 collected from the source “ State Bank of Pakistan and Federal Broad of Revenue”. The data was comprised on independent variable direct taxes as a share of GDP and Indirect taxes as a share of GDP and dependent variable Unemployment Rate.

The purpose this research was to investigate the impact of total taxes (Direct Taxes as a share of GDP and Indirect Taxes as a share of GDP) on Unemployment rate. To test the impact of each taxes i. e. (whether each taxes causes a change in Unemployment rate or not) a hypothesis has been established for each tax. The hypotheses were as follows:

H1: Direct Taxes had a significant impact on Unemployment Rate

H2: Indirect Taxes had a significant impact on Unemployment Rate

Empirical Model/ Statically Tool

Following model was used to find the relationship between taxes and unemployment rate. And to test the hypothesis that “ taxes has significant association with unemployment.

In its simplest form a Regression model was typically expressed as:

Regression analysis was used when you want to forecast a nonstop dependent variable from a number of independent variables. If the

dependent variable was dichotomous then logistic regression should be used. The independent variables used in regression can be either continuous or dichotomous. Independent variables with more than two levels can also be used in regression analyses but first must be transformed into variables that had only two levels. Usually regression analysis was used with naturally-occurring variables as oppose to experimentally manipulated variables although you can use regression with experimentally manipulated variables. One point to keep in mind with regression analysis was that fundamental relationships among the variables cannot be determined. While the terminology was such that it says that X “ predicts” Y it cannot be said that X “ causes” Y.

Interpretation

By using linear regression only independent variable direct taxes as a share of GDP and indirect taxes as a share of GDP significantly impacts the dependent variable unemployment rate in Pakistan.

The R Square value in the Model Summary table illustrates the amount of variance in the dependent variable that can be explained by the independent variables. The independent variable direct taxes as the share of GDP and Indirect taxes as share of GDP account for 42. 6 percent of the variance in dependent variable unemployment rate. It was seen that significant value F (3, 26) (p value) = 0. 05. At $p < 0. 05$ so the result was acceptable and there was a relationship between dependent variable unemployment rate and independent variable direct taxes as the share of GDP and Indirect taxes as share of GDP. Hence our hypothesis (There was relation between

unemployment rate and variable direct taxes as the share of GDP and <https://assignbuster.com/impact-of-taxation-on-employment-and-unemployment/>

Indirect taxes as share of GDP) accepted. Other independent variable Dummy Tight / relaxed FP didn't have significant impact on dependent variable unemployment rate. The R value (0.652) indicates the multiple correlation coefficients between all the entered independent variables and the dependent variable. The Std. Error of the Estimate was a measure of the variability of the multiple correlations. Adjusted R Square shows that how much our model was fit. In above table Adjusted R Square was 0.359 which means whenever there is change occur in dependent variable 35.9% of that change were explain by independent variable. Durbin Watson 0.683 shows that there was negative weak correlation between direct and indirect taxes as a share and unemployment rate.

An ANOVA table was then produced which tests the significance of the regression Model.

It had seen from table that Sig. (p value) = 0.05. At $p < 0.05$ our predictors were significantly better than it was expected. The regression line predicted by the independent variables does explain a significant amount of variance in the dependent variable. It had normally be reported in a similar fashion to other ANOVAs: $F(3, 26) = 6.421; p < 0.05$

The next part of the output the coefficients table shows which variables were individually significant predictors of our dependent variables

The un-standardized coefficients B column gives us the coefficients of the independents variables in the regression equation including all the predictor variables.

$$\text{Unemployment rate} = 3.005 + 0.631 \text{ DT} - 0.319 \text{ IT}$$

The standardized Beta coefficients column shows the contribution that an individual variable makes to the model. The un-standardized coefficients STD Error column provides us with an estimate of the variability of the coefficients.

According to the above results of direct taxes as the share of GDP that comes total value 93.7% (p value) = 0.001 > 0.050 and Indirect taxes as share of GDP came that Total value -114.3% were related and Sig. (p value) = 0.000 > 0.050. Hence our hypothesis (There was relation between unemployment rate and variable direct taxes as the share of GDP and Indirect taxes as share of GDP) accepted.

Co-linearity Statistics Tolerance values in coefficient table which was 0.345 for direct taxes and 0.323 for indirect taxes shows that it had weak correlation with dependent variable.

Chapter 4

Results/Findings

As discussed in the earlier chapters different variables had been taken based on the secondary data of 30 years comprised on yearly basis for the year 1978-2008 collected from the source "SBP and FBR". Each variable explains the impact of taxes on unemployment in Pakistan for each scenario a hypothesis was constructed. The independent variables taken in the study were (Direct taxes as share of GDP and Indirect taxes as a share of GDP) the

dependent variable was Unemployment Rate. The results and their findings were as follows.

With the help of Regression model investigation of secondary data it was found that taxes (Direct taxes as a share of GDP and Indirect taxes as a share of GDP) was the primary source that impacts the Unemployment rate in Pakistan. The statistical interpretations given above show the level of importance of each macro-economic indicator the acceptance and rejection of result depends upon the significance level i. e. $p > 0.50$ was not acceptable where as $p < 0.05$ was acceptable. Whereas the Prior research on unemployment by Heitger, (2002) using the same model the total tax share apply a significant impact on unemployment rate therefore our both hypothesis that direct taxes and indirect taxes as a share of GDP impact the changes in unemployment rate in Pakistan were accepted.

Chapter 5

Conclusion and Discussion

The aim of this thesis to check whether there is any impact of taxation on unemployment. In the estimations holding constant the total taxes (direct taxes as a share of GDP and indirect taxes as a share of GDP) turned out to be a noteworthy and vital determinant of the total unemployment rate. Higher unemployment rate also lead towards higher taxation in economy since of increasing government expenditures it was also investigated that whether the impact of taxation on unemployment was really endogenous or exogenous (i. e. simultaneously determined). The main cause seems for that is the relationship between unemployment and taxation was an equally

reinforcing one: when total tax rate rises it would lead towards higher unemployment rate (and government expenditures) which in turn leads to a higher tax rate.

This thesis also incorporated labor market rationing into a model of marginal direct and indirect tax reform and examined the sensitivity of tax reform recommendations to assumptions regarding reparability in the presence of rationing. It feels that these findings were nevertheless consistent with the conjecture of Deaton regarding tax reform in that the relevant rank correlations were still quite high.

Heitger, (2002) by using regression finds that the replacement rate in active labor market policies union compactness employer's management and the total tax share put forth a major impact on the short-term unemployment rate. These factors of the labor market drastically explain 57 percent of short-term unemployment in OECD countries.

Nickell, Nunziata, and Ochel (2005) in his GLS panel regressions establish the following effect for institutions: Employment protection and employment taxes had a positive effect on unemployment. The impact of taxes however was fairly small and countries with high bargaining coordination reverse this positive effect

The limitations in our understanding can be due to the fact that vital areas had not been sufficiently applied to this area: (1) So far labor market institutions had been modeled as exogenous. Theoretically the case has been made that political insider power can affect the evolution of

institutions. In particular the increase in one institution had altered the <https://assignbuster.com/impact-of-taxation-on-employment-and-unemployment/>

insider power and hence affects the demand for other institutions. In the light of the inconclusive findings on labor market institutions on unemployment this was a line of research worth pursuing. (2) There was a long-term tradeoff between monetary shocks and unemployment which had questioned the idea of a NAIRU. In the light of this research the exact effect of labor market institutions had to be reconsidered. Even if the long run trade-off between inflation and unemployment was non-vertical labor market institutions can shift the non-vertical Phillips curve however variables which capture such a long-term trade-off should be included in models and regressions.