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THE COEFFICIENT OF VARIATION AND THE GROWTH PATTERN OF PERSONAL INCOME IN YUGOSLAV INDUSTRY

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0. INTRODUCTION

The aim of this article is to bring together some evidence on the growth mechanism of personal income in branches of Yugoslav industry. (1) It has been shown earlier that this growth follows a typical pattern. (2) We further explore this observation a.o. by introducing the coefficient of variation of personal income in the wage equation. Thereby, an attempt is made to identify leaders and followers in the Yugoslav industry. (3) First, however, we try to capture some determinants of this coefficient of variation.

1. THE COEFFICIENT OF VARIATION OF PERSONAL INCOME IN YUGOSLAV INDUSTRY

1.0. In this first part we will test some equations on the aggregate industry level of industry, while thereafter we will study the reaction of particular industrial branches. All variables in the equations are used in the form $100 \times Q_t/Q_{t-4}$. As quarterly data are used, in fact the yearly changes of the variables are measured in each quarter. One exception concerns the coefficient of variation of the personal income variable. Along with the quarterly change form (sKV), the absolute level of inequality (KVAB) was also sometimes introduced in the equations (measured quarterly). The period 1964—1976 was covered with 52 observations.

1.1. We first test the coefficient of variation of personal income for 17 branches of Yugoslav industry regarding its sensitiveness to business cycles. These are approximated by industrial production (sIND). Both specifications of the coefficient of variation (sKV, KVAB) yield similar results, though the absolute level form gives somewhat more pronounced results:

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$$KVAB = 0.4222 - 0.0022\ sIND \qquad R^2c = .25$$
$$(0.0081)\ (0.0005) \qquad DW = .62$$
$$t = 4.24$$

The coefficient supposed to capture the effect of business cycles is significant at 0.1% and has the expected negative sign, indicating that in bad economic conditions weak branches seek to deteriorate their position and inequality rises. The variance explained by the business conditions is, however, not too high.

Introduction of a dummy variable for the period after 1971-I (Dummy = 1) augments the explanatory power of the equation:

$$KVAB = 0.4472 - 0.0023\ sIND - 0.0208\ Dummy \qquad R^2c = .51$$
$$(0.0066)\ (0.0004) \qquad (0.0040) \qquad DW = 1.05$$

The dummy variable is significant at 0.1%, suggesting a different behaviour in the two periods. For the first period we get:

$$KVAB = 0.5312 - 0.0031\ sIND \qquad R^2c = .72$$
$$(0.0077)\ (0.0037) \qquad DW = 1.25$$
$$t = 8.43$$

For the period after 1971-I:

$$KVAB = 0.1916 - 0.0002\ sIND \qquad R^2c = .00$$
$$(0.0204)\ (0.0004) \qquad DW = 1.06$$
$$t = 0.18$$

So, obviously, the cyclical dependence of the coefficient of variation only existed in the first period. (4) This could be an indication that in the second period income policy countered the (cyclical) variation of inequality. The year 1971 can be seen as the introduction of the common Yugoslav system of social compacts and self-government agreements.

Earlier, the same observation was made for Slovenia alone. V. Franković i F. Kuzmin (5) tested the relation for the period 1968—1978 with a dummy variable for the introduction of social compacts and self-government agreements (D = 1 since 31. V. 1971):

$$sKV = 6.62 - .852\ IND - 12.814\ D \qquad R^2 = .66$$
$$t = (-.2.95) \qquad (-9.69) \qquad F = 7.21$$

They concluded that independently of industrial activity, the self-government agreements had had a great influence on the contraction of the wage differentials (6). In the period '71—'72, direct administrative intervention by the Federal government could have influenced these results (7). When we restrict the active period of the dummy variable to the period 1971—II — 1972—IV, we get the following result:

$$KVAB = 0.41 - .002 - 0.016\ D \qquad R^2C = 0.31$$
$$(.0005)\ (0.007) \qquad DW = 0.73$$
$$t = -4.16 \qquad -2.29$$

Therefore, according to the determination coefficient and t-statistics, about half of the effect could be ascribed to direct government intervention.

In theory, the abolition of the tax on business capital in 1971 could have freed funds for personal income in weak enterprises; however, the effect must have been modest as the obligation was transformed into a loan to the underdeveloped republics and Kosovo (8). Notwithstanding some qualifying factors, we think the influence can be established of the system of social compacts and self-government agreements.

We now express the coefficient of variation in its yearly change form to evaluate the magnitude of the coefficients. Taking 71—I as the dividing point, we have for the two periods:

$$sKV = 217.1 - 1.0600\ sIND \qquad R^2c = .20$$
$$(7.7)\ (0.3713) \qquad DW = .87$$
$$t = 2.85$$

$$sKV = 134.7 - 0.3264\ sIND \qquad R^2c = .01$$
$$(15.5)\ (0.6861) \qquad DW = .72$$
$$t = 0.48$$

In the first period, a one per cent improvement in business conditions diminished inequality between branches with the same percentage. The moderating effect was more modest in the second.

1.2. Let us now turn to an explanation of the coefficient of variation of personal income. M. Wachter (9) considered this problem in a competitive economy. As determinants of the coefficient of variation, he opts for a labour market variable (unemployment) and a price variable. Because of institutional arrangements, the labour market variable looks inappropriate in the Yugoslav context. Wachter mentions two noncompetitive elements without entering them in the regression analysis. One of them, the ability to pay, could be crucial in the Yugoslav case and altogether capture the effect of the neglected labour market variable in our equation. The second, the strength of unionization, is replaced here by a dummy variable for the institutional arrangements of the second period. The distorture of price-movements is maintained as an hypothesis by the introduction of a price variable in our equation. So, it is assumed that a cost of living variable (sP) affects wages through inequal reaction in adjustment. The cyclical component is again represented by the introduction of aggregate industrial production (sIND). The ability to pay variable (sINC) has been constructed by multiplying a producer price index by a productivity variable. The following result is obtained:

$$sKV = 0.00 + 0.07\ sINC + 0.16\ sP - 0.38\ sIND - 0.20\ Dummy \qquad R^2c = .11$$
$$(0.25) \qquad (0.22) \qquad (0.17) \qquad (0.15) \qquad DW = 87$$
$$t = 0.28 \qquad 0.71 \qquad 2.24 \qquad 0.71$$

The equation performs rather poorly, except that all coefficients carry the expected sign.

1.3. We now add the coefficient of variation to an aggregate wage equation. Wachter's study suggests that the amount of wage dispersion may be a significant variable in the determination of the rate of aggregate wage change' (10). He interprets the negative sign of the coefficient of variation in a competitive economy as a protection reaction of the high income branches to personal income differences becoming too small. So, a decline in the wage dispersion must lead to a reaction and an increase in the aggregate wage change. Therefore, contradicting tendencies and a complex interplay system are suggested. This is illustrated by the contradicting results for the Yugoslav industry for the two versions of the variation coefficient. The dependent variable (sW) is expressed in the usual yearly change form. The income variable is replaced by a productivity variable (sQ/R) in order to avoid multicollinearity with the cost of living variable (sP). This last variable is lagged with 1 period. Lags for adjustment of the productivity variable do not affect the results significantly.

$$sW = -59.86 + 0.97\ sQ/R + 0.74\ sP_{t-1} - 30.34\ KVAB \qquad R^2c = .59$$
$$(5.69)\quad (0.32)\quad (0.09)\quad (48.31) \qquad DW = .53$$
$$3.01\quad 7.89\quad 0.63$$

$$sW = 112.49 + 1.29\ sQ/R + 0.73\ sP_{t-1} + 0.15\ sKV \qquad R^2c = .62$$
$$(5.82)\quad (0.34)\quad (0.08)\quad (0.08) \qquad DW = .59$$
$$3.78\quad 8.12\quad 1.75$$

Productivity and price variables are significant at the 0.01 level, the change variable sKV only at 10%, and KVAB not even there. So no enterprise conditions can be drawn on analysis of the whole period. In branch analysis it will be shown that the impact of the coefficient of variation is different for particular branches. The possibility of a positive sign in any case points to a cumulative spiral with leading branches driving up the aggregate wage level.

2. THE INTER-INDUSTRY GROWTH PATTERN OF PERSONAL INCOME

2.0. From the aggregate level, we now turn to the branch level. We restrict arbitrarily our concern to industrial branches as data are more comparable here. An extension to the whole economy should provide necessary corrections. Yugoslav industry was traditionally divided into 22 branches, of which 17 provide useful data for our purpose. The period had to be restricted to 1976, as a new classification started then. Thus, a time series of personal income of particular branches is connected with a proxy for business conditions, the variables of our wage equation at the aggregate level and with the wages of a branch supposed to be a leading branch, and with the aggregate industrial wage series. All this aims at enlightening the inter-industry growth pattern of wages.

2.1. We first consider the regression of personal income of industry branches on total industrial production, thus the last variable is again used as a proxy for business conditions. It is hypothesized that weak branches should be more exposed to the effects of business cycles. Therefore, in the equation:

$$sW_{it} = a + b\ sIND_t \qquad \text{with } i = \text{industrial branch}$$

they should display a higher positive b-coefficient and a higher explained variance (R^2).

Table 1 contains the result for the whole period 1964—1976. According to high auto-correlation, the statistical results are weak and the determination coefficients low in general. However, the following branches having a b-coefficient more than one, and thus highly sensitive to business conditions are: ferrous metallurgy, wood products, coal, paper, non-metals and textiles. They also have the highest explained variance. The electrical power, oil and building industry score lowest. Sub-dividing in two periods (Tables 2 and 3) singles out this last observation more clearly. In the period up to the introduction of a nation-wide system of social compacts and self-management agreements (1971-I), the determination coefficients fall even more. It is interesting that the oil and building industry get a negative b-coefficient, though not significant, indicating anticyclical behaviour in wage-setting. In the second sub-period, tendencies are expressed more clearly. Electrical power and oil (along with tobacco) display much lower determination coefficients than most other branches. However, additional evidence is to be gained. The cyclical behaviour of the non-monopolistic branches is shown in the higher determination coefficients. Part of it could be caused by the (positive) auto-correlation (low DW-values). Iteration procedures reduced determination coefficients, leaving enough explaining power, however, to confirm the sensitiveness to business cycles. This implies that income policies based on social compacts and self-management agreements did not compensate for the cyclical forces (11).

2.2. Next, personal incomes of various branches of industry are regressed to aggregated personal incomes of industry (Table 4). Again the behaviour of the wages (sW_i) of the branches of industry can display more or less autonomy of average wage dynamics. In the equation

$$sW_{it} = a + b\ sW_t$$

the residuals display the specific reaction of each branch to the average wage evolution. Graphical analysis of these residuals can give illustrative information on the autonomy of the wage evolution of the branches (12). Four cases can be theoretically distinguished. First, residuals are limited and the resulting high determination coefficient indicates that this branch closely follows average personal incomes of industry. These branches could be considered as trend setters. Relatively little auto-correlation should be present in the regression also (DW closer to two). Second, residuals are high and follow no cyclical pattern (DW closer to

2). When this is not wholly occasionally (the limit of $R^2C = .70$ has been chosen), such branches could also be considered as autonomous wage setters. Third, residuals show an oscillatory trend (low DW, say less than 1, because of high positive auto-correlation). When they fluctuate in the same direction as economic activity, this is seen as dependent behaviour, and when they fluctuate in the opposite direction, this can be ascribed to strong autonomy of monopolistic branches. This last feature can be deduced from the sign of the partial correlation coefficient for industrial production out of the regression: $sW_{it} = a + b\ sIND_t + c\ sW_t$ (see Table 5). Summarizing and combining the criteria, rather monopolistic characteristics (relatively high R^2 and DW with a negative partial correlation coefficient) are displayed by food (the only eventual candidate for our first category) electrical power and rubber. Explicitly, non-monopolistic characteristics are observed for coal, ferrous metallurgy, wood products, paper and textiles.

This more or less confirms Bajt's similar analysis for the former period (1964—1970). He concluded as follows: monopolistic are electrical power, oil and rubber; non-monopolistic are coal, ferrous metallurgy, non-metals, chemicals, textiles, leather and wood (13).

2.3. We now introduce the selected variables of the aggregate wage equation in the wage equation of each branch. Thus, we get:

$$sW_{it} = a + b\ sQ/R_{t-2} + c\ sP_{t-1} + d\ KVAB_t.$$

The aggregate productivity variable was lagged two periods after some experimentation (14), and the cost of living index — one period. The reaction on the level of inequality is captured by KVAB. Lagging of this variable did not improve the results. Expected signs for productivity and price variables are positive, but for the KVAB-variable negative. The level of inequality is highest in bad economic conditions, when the aggregate wage change is also lower. In booming periods with greater aggregate wage change, inequality should lessen correspondently. Differential behaviour of weak and strong branches is possible and will be focused (see Table 6). Though variables are (all but one) expressed in change form, the equations perform fairly well. Determination coefficients are high. Personal incomes of branches can be explained to a proper extent by aggregate variables. The cost of living has the most significant coefficients and those of acceptable magnitude. The significance of the productivity variables is lower, but also quite well, though the coefficients fall out a great deal; this can be in part ascribed to the negative constant and the considerable auto-correlation (low DW). Most interesting, however, is the contribution of the variation coefficient. The contribution to the explained variance in comparison with equations without the variable is generally negligible, nor is it generally significant even at the 10% level. In most cases, it has the expected negative sign. There are five exceptions. It is interesting that in the cases of electrical power, oil and building materials, the positive value is significant even at the 5% level. This is not the case for chemicals and the electrical industry, which are also carrying a positive sign. The first three branches can thus be identified as leaders. Even

when inequality is high (bad business conditions), they go on with augmenting their wages autonomously. The interpretation of electrical power, oil and building materials as leaders also conceptually fits, given the strategic position in the total production process. They are also traditionally placed under price-control. It is also known that price control did not prevent the prices of some branches from rising more than others (15).

2.4. Finally, to test the explaining power of a leading branch (electrical power), the personal income of other branches was regressed onto it (Table 7). Oil and building materials (along with the food industry) logically display the highest explained variance. The overall explained variance is quite high, given the form of the valiables (quarterly data on yearly changes). Of course, it remains inpossible to prove a causal link between wages of leading branches and these of followers from this sort of regression analysis. A more concrete description of the mechanisms at work in society is needed (16).

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APPENDIX

Table 1 $W_i = f$ (Ind) 1964—1976

	a	b	R^2C	DW
Electrical Power	89.08	.30	—0,00	.33
	(17.48)	(.93)		
Coal	9.91	1.05	.12	.41
	(1.73)	(2.86)		
Oil	118.68	0.04	—.02	.42
	(17.13)	(0.09)		
Ferrous Metall.	—21.84	1.33	.25	.26
	(4.49)	(4.28)		
Nonferrous	27.97	.87	.05	.32
	(4.00)	(1.96)		
Nonmetals	2.94	1.10	.19	.42
	(0.61)	(3.60)		
Metals	52.90	0.63	.08	.22
	(12.66)	(2.37)		
Electrical	72.25	.45	.03	.37
	(16.22)	(1.59)		
Chemicals	53.40	.63	.04	.25
	(9.37)	(1.74)		
Building Mat.	80.88	.39	.01	.27
	(16.69)	(1.25)		
Wood Products	—4.55	1.18	.35	.37
	(1.32)	(5.35)		

Paper	8.31	1.04	.18	.31
	(1.82)	(3.58)		
Textiles	14.21	1.00	.11	.21
	(2.47)	(2.71)		
Leather	61.97	.54	.04	.30
	(12.58)	(1.73)		
Rubber	43.52	.72	.04	1.02
	(6.70)	(1.74)		
Food	58.04	.60	.03	.30
	(10.10)	(1.63)		
Tobacco	76.33	.43	.01	.58
	(13.30)	(1.18)		

Table 2: $W_i = f$ (IND), 1964—1971[1]

	cte	IND	R^2C	D W
Electrical Power	109.87	.13	—0.04	.30
	(11.47)	(0.28)		
Coal	17.32	.97	.10	.29
	(1.74)	(2.02)		
Oil	165.29	—.37	—.02	.37
	(13.10)	(10.62)		
Ferrous Metal	—6.84	1.19	.16	.21
	(0.70)	(2.55)		
Nonferrous	52.71	.65	.03	.30
	(3.83)	(0.98)		
Nonmetals	9.52	1.05	.14	.37
	(1.01)	(2.32)		
Metals	60.21	.57	.04	.21
	(7.51)	(1.47)		
Electrical	86.26	.33	—.01	.37
	(10.26)	(0.80)		
Chericals	94.71	.25	—.03	.26
	(8.59)	(0.48)		
Building Mat.	130.05	—0.05	—.03	.28
	(14.88)	(0.12)		
Wood Products	11.18	1.05	.25	.37
	(1.67)	(3.25)		
Paper	55.16	.61	.07	.31
	(7.54)	(1.73)		
Textiles	33.89	.82	.04	.19
	(12.88)	(1.44)		
Leather	69.79	.48	.00	.27
	(7.01)	(0.91)		
Rubber	65.49	.52	—.01	1.01
	(5.24)	(0.86)		
Food	82.90	.38	—.01	.24
	(7.22)	(0.69)		
Tobacco	80.80	.38	—.01	.53
	(7.77)	(0.76)		

Table 3: $W_i = f$ (IND) 1971[1]—1976

	cte	IND	R^2C	D W
Electrical Power	48.28	.66	.09	.51
	(5.63)	(1.74)		
Coal	—21.87	1.36	.15	.75
	(1.57)	(2.22)		
Oil	0.64	1.12	.11	.78
	(0.95)	(1.90)		
Ferrous Metall.	—61.55	1.69	.62	.76
	(9.71)	(6.05)		
Nonferrous	—34.27	1.44	.30	.59
	(3.40)	(3.22)		
Nonmetals	—8.85	1.20	.36	.82
	(1.18)	(3.64)		
Metals	34.20	.80	.18	.34
	(4.55)	(2.42)		
Electrical	38.46	.76	.15	.36
	(4.91)	(2.20)		
Chemicals	—60.49	1.69	.52	.47
	(7.87)	(4.97)		
Building Mat.	—40.41	1.49	.48	.67
	(5.57)	(4.65)		
Wood Products	—34.73	1.44	.78	.49
	(9.46)	(8.86)		
Paper	124.17	2.28	.49	.45
	(11.36)	(4.72)		
Textiles	—40.40	1.50	.65	.89
	(7.68)	(6.46)		
Leather	43.20	.72	.23	.73
	(7.35)	(2.76)		
Rubber	—19.05	1.31	.22	1.21
	(1.71)	(2.65)		
Food	—2.10	1.15	.38	1.28
	(0.31)	(3.86)		
Tobacco	56.74	0.63	.01	.74
	(4.50)	(1.13)		

Table 4: $W_i = f(W)$ 1964—1976

	cte	W	R^2C	D W
Electrical Power	11.39	0.91	.72	1.17
	(7.35)	(11.50)		
Coal	18.92	.85	.43	.50
	(7.09)	(6.32)		
Oil	—11.45	1.11	.59	1.01
	(4.49)	(8.58)		
Ferrous Metall.	—11.94	1.10	.86	.80
	(4.91)	(17.96)		

Nonferrous	—47.36	1.39	.86	.88
	(30.12)	(17.50)		
Nonmetals	—5.96	1.05	.88	1.25
	(5.68)	(19.78)		
Metals	16.72	.86	.88	.54
	(19.07)	(19.31)		
Electrical	26.81	.78	.67	.67
	(17.71)	(10.12)		
Chemicals	—21.03	1.17	.93	.75
	(23.40)	(25.75)		
Building Mat.	11.22	.92	.80	.80
	(8.93)	(14.38)		
Wood Products	25.83	.79	.78	.65
	(22.31)	(13.53)		
Paper	13.76	.88	.68	.62
	(8.36)	(10.56)		
Textiles	—25.24	1.21	.89	.49
	(21.87)	(20.65)		
Leather	3.66	.96	.84	.76
	(3.12)	(16.18)		
Rubber	—17.36	1.14	.70	2.28
	(7.88)	(10.23)		
Food	—20.64	1.18	.93	1.42
	(22.75)	(25.63)		
Tobacco	5.03	.97	.64	1.22
	(2.52)	(9.60)		

Table 5: $W_t = f(Q/R, P, KVAB)$ 1964—1976

	Q/R_{t-2}	P_{t-1}	KVAB	C*	R^2C	DW
Electrical Power	1.11	.74	124.88	—103.69	.48	.87
T =	(2.87)	(6.45)	(2.11)	(15.32)		
	(.35)	(3.13)	(—0.82)	(4.92)		
Coal	.21	.55	— 73.70	50.79	.17	.39
Oil	.83	.99	211.56	—117.74	.43	.69
	(1.53)	(6.11)	(2.54)	(12.36)		
Ferrous Metal	1.34	.85	— 91.53	—100.48	.71	.59
	(4.20)	(8.73)	(—1.86)	(18.49)		
Nonferrous Metal	1.77	1.12	— 6.18	—192.27	.65	94
	(3.97)	(8.44)	(0.09)	(24.61)		
Nonmetals	1.69	.63	— 64.29	—116.53	.55	99
	(4.48)	(5.66)	(1.12)	(17.66)		
Metals	1.43	.66	— 5.56	—104.53	.71	.97
	(5.75)	(8.97)	(0.15)	(24.08)		
Electrical	1.34	.65	27.30	— 98.77	.57	.79
	(4.29)	(7.00)	(0.57)	(18.16)		
Chemicals	1.36	.97	12.96	—136.14	.70	1.05
	(4.06)	(4.82)	(0.25)	(23.28)		
Building mat.	.49	.83	121.46	— 47.92	.58	.53
	(1.49)	(8.16)	(2.38)	(8.50)		

Wood Products	1.53	.41	— 65.34	— 72.35	.50	.62
	(4.75)	(4.31)	(1.33)	(12.89)		
Paper	1.41	.60	— 44.70	— 87.75	.47	.62
	(3.62)	(5.16)	(0.75)	(12.86)		
Textiles	1.67	.87	—113.60	—132.31	.69	.55
	(4.67)	(8.18)	(2.09)	(21.20)		
Leather	1.25	.82	— 42.82	— 96.72	.74	.95
	(4.64)	(10.23)	(1.04)	(20.58)		
Rubber	1.47	.92	— 35.90	—132.19	.54	2.31
	(3.17)	(6.70)	(0.51)	(16.34)		
Food	.72	.96	— 2.14	— 64.92	.62	.52
	(1.89)	(8.26)	(0.04)	(9.98)		
Tobacco	1.15	.83	— 65.26	— 82.19	.57	1.23
	(2.91)	(7.10)	(1.08)	(11.88)		

Table 6: Partial correlation coefficient for $sIND_t$ out of the regression:
$sW_{it} = a + b\,sW_t + sIND_t$

	Part. Corr. Coef. $sIND_t$
Electrical power	—0.3212
Coal	0.2129
Oil	—0.4145
Ferrous metallurgy	0.5878
Nonferrous	—0.1348
Nonmetals	0.4253
Metals	—0.0021
Electrical	—0.1074
Chemicals	—0.3543
Building materials	—0.3142
Wood products	0.6954
Paper	0.3261
Textiles	0.1234
Leather	—0.1923
Rubber	—0.0744
Food	—0.4070
Tobacco	—0.1932

Table 7: $W_t = f$(W Electrical Power) 1964—1976

	ct_c	W_{ep}	R^2C	DW
Coal	43.10	.65	.30	.50
	(15.02)	(4.58)		
Oil	—11.93	1.11	.67	1.44
	(5.52)	(10.29)		
Ferrous Metal	24.06	.80	.51	.71
	(11.06)	(7.39)		
Nonferrous	—15.48	1.13	.63	1.24
	(6.44)	(9.45)		

Nonmetals	20.37	.83	.62	.93
Metals	(11.29)	(9.27)		
	35.42	.70	.67	.89
Electrical	(25.36)	(10.12)		
	47.00	.61	.46	.89
Chemicals	(25.53)	(6.65)		
	8.22	.93	.66	1.08
Building Mat.	(4.40)	(9.96)		
	25.40	.80	.69	1.19
Wood Products	(16.85)	(10.64)		
	52.95	.57	.45	.89
Paper	(30.12)	(6.52)		
	41.01	.66	.42	.65
Textiles	(19.27)	(6.19)		
	15.96	.87	.51	.61
Leather	(6.79)	(7.41)		
	32.43	.72	.53	.77
Rubber	(17.05)	(7.67)		
	9.50	.92	.49	1.83
Food	(3.62)	(7.04)		
	3.11	.98	.73	1.33
Tobacco	(1.84)	(11.68)		
	30.82	.76	.44	.91
	(12.83)	(11.37)		

NOTES

(1) Some study of this topic has been done by:
BAJT, A. "Mehanizem jugoslovenskega gospodarstva. Inflacija osebnih dohodkov. Deskriptivna medsektorska analiza". Ekonomski Institut Pravne Fakultete, Ljubljana, 1972.
FRANKOVIČ, V. i KUZMIN, F. "Raziskava gibanj osebnih dohodkov". Inštitut za Ekonomska Raziskovanja, Ljubljana, 1975.
POPOV, S. Uloga ličnih dohodaka u procesu formiranja i kretanja cena proizvođača". Institut Ekonomskih Nauka, Beograd, 1976.

(2) BAJT, A., o. c.
STALLAERTS, R. "The effect of capital intensity on income in Yugoslav industry". Economic Analysis and Workers' Management, 1981, 4, p. 507.

(3) Vast literature exists on this topic for the Western economies. Given the specific institutional arrangement of the Yugoslav economy, it does not seems too helpful.

(4) BAJT, A., o. c., p. 42 expressed this relationship graphically.

(5) FRANKOVIČ, V. i KUZMIN, F., o. c., p. 84—89.

(6) "Neodvisno od gospodarska aktivnosti pa je samoupravno sporazumevanje vplivalo na izredno krčenje disperzije OD med panogami in to v obdobju deceleracije gospodarske aktivnosti." FRANKOVIČ, V. i KUZMIN, F., o. c., p. 89.

(7) A chronology of government economic policy is given in YUGOSLAVIE, OCDE, Paris, 1972, p. 58—59.
YOUGOSLAVIE, OCDE, Paris, 1973, p. 57—62.

(8) In 1971 relative to 1970, the part of the accumulated enterprise funds had fallen. STAMENKOVIĆ argues that there was no room to elevate personal incomes on that account; in reality, there was a fall in real wages.
»Taj prostor trebalo bi tražiti u delu koji se izdvaja za fondove privrednih organizacija. Taj deo je upravo u 1971 narastao na 17,2%, sa 12,6% koliko je iznosio u 1970. godini. Približno polovina od toga porasta ondnosi se na smanjeno učešće ličnih dohodaka, troškova »nadgradnje« i sl. dok se druga polovina odnosi na ukinutu kamatu na poslovni fond koja, istina, predstavlja sredstva privrede, ali je angažovana obaveznim zajmom za brži razvoj nedovoljno razvijenih republika i pokrajine Kosovo, pa je privredne organizacije ne mogu koristiti u tekućem poslovanju.«
STAMENKOVIĆ, S. »Inflacija u jugoslovenskoj privredi — faktori i mehanizam. Jugoslovensko Bankarstvo, 1974, 4, p. 26.

(9) WACHTER, M. "Cyclical variation in the interindustry wage structure". American Economic Review, March 1970, p. 75—85.

(10) Id., p. 83.

(11) Of course, some regulations wanted to remunerate productivity and were not intended to equalize personal income. Furthermore, on the efficiency of the regulations, see:
MATES, N. »Ekonomski sadržaj dogovora o raspodeli dohotka«.
Ekonomski Pregled, 1980, 7—8, p. 333—348.
MADŽAR, Lj. »Društveni dogovori o raspodeli dohotka«. Ekonomska Misao, 1978, 2, p. 51—72.

(12) BAJT explores this point, o. c., p. 72—79, for the period 1964—1970.

(13) BAJT, A., o. c., p. 81—82.

(14) See also TYSON, L. "The Yugoslav Inflation: Some Competing Hypotheses«. Journal of Comparative Economics, 1977, 2, p. 113—46.

(15) POPOV, S., o. c., p. 256 a. f.

(16) The underlying causes of some mechanisms could differ from their appearance. One wage-cost push analysis was given in: HORVAT, B. "Ekonomska politika stabilizacije". Naprijed, Zagreb, 1976, p. 85—96. Branches with high productivity pay high wages and induce other branches to follow their example. A similar view is expressed by MILANOVIĆ, B. »Diferencijalno povećanje produktivnosti kao uzrok troškovne inflacije.« Ekonomska Misao, 1981, 2, p. 7—48.

KOEFICIJENT VARIJACIJE I MODEL RASTA LIČNIH DOHODAKA U JUGOSLOVENSKOJ INDUSTRIJI

Robert STALLAERTS

Rezime

U prvom delu članka pokušavamo da objasnimo ponašanje koeficijenta varijacije ličnih dohodaka u jugoslvenskoj industriji. Taj je koeficijent posredno povezan sa privrednim ciklusima i sa klasičnim varijablama u jednačini plata Njegova uloga u agregatnoj jednačini plata takođe se diskutuje. Samo prvi test daje jasne rezultate o osetljivosti koeficijenta varijacije na privredne cikluse. Ti su rezultati još jasniji kada se globalni period 1964—1976. podeli na dva potperioda. Stoga se, u drugom delu članka, podaci proučavaju na granskom nivou. Pretpostavlja se da su, testiranjem granskih jednačina plata, prikupljeni izvesni podaci za međugranski model rasta ličnih dohodaka. Ponovo se razmatra prvo osetljivost pojedinih grana na uslove privređivanja, a zatim odnos tih grana prema prosečnoj plati. Na osnovu statističkih kriterijuma pravi se razlika između grana sa potpuno autonomnom postavkom plata i njihovih pratilaca. Uvođenje koeficijenta varijacije ličnih dohodaka u jednačinu plata za svaku granu baca dodatno svetlo na ponašanje tih grana. Svi testovi daju, više ili manje, istu sliku. Grane kao što su in-

dustrija nafte, prehrambena industrija, industrija građevinskog materijala, elektroindustrija i ndustrija gume teže ka monopolističkom položaju. Proizvodnja uglja, crna metalurgija, drvna industrija, industrija hartije i tekstilna industrija eksplicitno pokazuju nemonopolističke osobine. Naročito se industrija nafte, elektroindustrija i industrija građevinskog materijala, zajedno sa prehrambenom industrijom, mogu označiti kao lideri. Testovi su, međutim, samo eksperimentalnog karaktera; njih treba da potvrdi studija konkretnih mehanizama u društvu.

HRONIKA — CHRONICLE

POVODOM OSNIVANJA UDRUŽENJA ZA PROUČAVANJE SAMOUPRAVNE EKONOMIJE

Na podstrek i inicijativu jedne grupe jugoslovenskih ekonomista krajem 1981. je na osnivačkoj skupštini formirano, a početkom 1982. registrovano novo naučno društvo za proučavanje samoupravne ekonomije, pod imenom »Udruženje za ekonomiju samoupravljanja«, sa sedištem u Beogradu (Zmaj Jovina 12).

Prvi izabrani predsednik društva je Ivan Maksimović, dopisni član SAN-u, a članovi prvog predsedništva su: dr Branko Horvat, mr Časlav Ocić, dr Davor Savin, dr Pavle Petrović, dr Pavle Vasić, dr Sonja Petrović-Lazarević (sekretar predsedništva).

Ideja koja je rukovodila inicijatore i osnivače bila je da ovo društvo već de facto postoji, da je 1976. godine organizovalo I međunarodni skup ekonomista sveta koji se bave samoupravnom ekonomijom (Cavtat) i da već poseduje međunarodno afirmisano glasilo — »Ekonomsku analizu«, te da su mnogobrojni članovi — inicijatori društva već značajno doprineli širenju interesovanja i organizaciji međunarodnih skupova o samoupravnoj ekonomiji.

Ti zadaci unekoliko su odredili i specifičan karakter aktivnosti novog društva. Ono treba da bude jedna po obimu manja, a po organizacionim formama, zadacima i ciljevima, po metodama rada, homogena i specifičnija organizacija (udruženje) od postojećih saveza ekonomista republika, Saveza ekonomista SFRJ, kao i pojedinih institucija (npr. savez ekonomista u JNA) koja bi se isključivo ili najpretežnije bavila problemima i pitanjima razvitka ekonomske nauke u vezi sa proučavanjem glavnih problema samoupravne privrede.

Cilj udruženja jeste, kako se vidi iz njegovog prihvaćenog Statuta, da podstiče naučnu saradnju između osoba, naučnih i stručnih radnika — ekonomista, zainteresovanih, pre svega, za razvoj i primenu naučne ekonomije u samoupravnoj ekonomiji, za ekonomsku teoriju, ekonomsku politiku i planiranje.

Otuda težište istraživanja ovog udruženja jeste naša samoupravna ekonomska praksa i odgovarajuća ekonomska teorijska misao. Ali bi ovo društvo istovremeno pratilo i odgovarajuće začetke ekonomske prakse i aktivnosti koje poprimaju samoupravna i participativna obeležja u drugim zemljama, što bi opet omogućilo komparativna istraživanja, šire uopštavanje naših specifičnosti i zakonitosti, bolju korespondenciju sa inostranim zainteresovanim ekonomistima, a i naš veći teorijski uticaj na inostrane radnike, veću naučnu propagandu naše samoupravne prakse, itd.