A complete list of Working Papers on the last pages

No. 56, 1981 Central Control of the Local Government Sector in Sweden

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by

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Table 1.Agreements between central government and the<br/>local government sector (Landstings- och Kommunför-<br/>bunden) about tax limits and actual tax rate increas-<br/>es.x

Year		Agreement	Tax change
1973-1 1975	974	Maximum increase 1% No agreement	0,24% 1,17%
<sup>1</sup> 1976-1 <sup>2</sup> 1978 <sup>3</sup> 1979-1	977 980	Maximum increase 1% No increase No increase	1,60% 1,83% 0,36%

<sup>1</sup> Block grants of 600 milj Sw cr for each year (amounts to 0,5% tax increase).

<sup>2</sup> Block grants of 720 milj Sw cr.

<sup>3</sup> 1979 block grants of 878 milj Sw cr.

 $\mathbf{x}$  The tax is a proportional income-tax. The rate is in percentage points. The change refers to percentage points.

As the seventies' roared on structural economic problems were added to stabilization problems. One issue is the size of the public sector. Interest almost immediately by focused on the local government sector. A government commission looked into the probblem of the expanding local government sector. The final report (SOU 1978:77) appeared much too late to deal with the tremendous expansion at least in relation to GNP that took place in the seventies. See diagram 1 below.





Källor: Höök (1962), Kommunernas finanser, Johansson (1967), Nationalräkenskaperna.

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In the early eighties' a growing central government budget deficit was thought to call for a cut-down in public activities. In order that local governments should bear part of the burden a program for cutting down central government subsidies was set in motion. Also, the expansionary effects of central government regulations of local government activities was observed. The result is a slowed down increase in central government subsidies, reckoned to be 5,3% per year 1980/81 - 1984/85 (in real terms a decrease of 0,8% per year). This is a slowed down expansion in comparison to earlier periods (see table 8).

When viewing the growth of the communal sector it comes as no surprise that the interest in bringing in that sector into macroeconomic policies has increased. In table 2 that part of the public sector which is not central government is exhibited. From the early fifties up to 1970 a substantial shift of roles took place. That was what promoted the discussion. The 70's, however, have to some extent meant a return to earlier proportions.

It is perhaps not yet a situation where the tail wags the dog. Central government commands a diminished part of public investments and consumption. If economic activities have shifted to the communal sector this is not so for transfers. Central government still has the power of the purse. Below the table the central government share of total public expenditures is exhibited. Between 1950 and 1979 that share has barely changed at all.

But the situation is a new one, with new possibilities and drawbacks. Transfers are in principle more easy to vary but their effects upon recipients' behavior - which is what ought to be counted - is less certain.

Table 2.	Local	<u>go</u>	verm	nent	secu	<u>)</u>	exper	unures	1770	1770
	and 1	979	as p	ercent	ages	of	total	public	sector	expen-
	diture	es								
				·····						
				1950			1970		1979	
of										
consumption				49,4			61,9		68,4	
investments				44,9			64,6		53,9	
transfers*				19,1			28,1		20,7	
total				38,4			51,6		48,4	

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\* Central government transfers to the communal sector are excluded. For comparison, let's see the central government share of total expenditures

	1950	1970	1979
Central government share			
of total expenditures	68,6	60,9	65,3

#### PERSPECTIVE ON THE LOCAL GOVERNMENT SECTOR EXPANSION

Before launching a comprehensive program for limiting local government expansion it is advisable to study the forces governing that expansion. I want especially to stress the urbanization factor.

By that I mean that there has been a strong impact upon local government expenditures from people moving from countryside to town. One side of this has been noticed as an almost self-evident fact. That is the consequential need for house-building and complementary urban infra-structure: investments in roads, schools,

Table 2

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shops etc. Another side is the <u>communalizing</u> effect on a wide range of activities. I shall develop the idea shortly before proceeding.

The idea is that as people move from countryside to town a great many activities that are privately organized in a rural setting become communal affairs in the more densely settled area. Take for example garbage disposal, which, until recently, in the countryside could be handled with a private garbage-heap. In town, garbage has to be collected, processed and disposed of in orderly, industrialized fashions. The same is the case for watersupply, sewage, heating, recreation, roads etc.

What has to be distinguished is on the one hand a relocation investment, new housing replaces disbandoned houses, new roads take the place of roads that loose their importance etc. This causes an investment activity that vanishes with the influx of people to urban areas. What does not vanish, on the other hand, is the effect of communalizing these formerly private activities. That becomes a permanent addition to municipal current expenditures and raises the local government share.

What causes this take-over of private activities is a mixture of external effects and scale economics with rising population density, which I shall not develop here. I shall merely state some empirical evidence.

In a study that I recently undertook (Murray 1981) cross-sectional differences between Swedish municipalities – the year was 1975 – regarding expenditures to a considerable extent were explained by varying population density. The variables were number of inhabitants per square kilometer and percentage of population living in urban areas – an urban area beeing a settlement of more than 200 inhabitants in houses no more than 200 meters apart.

Current expenditures per capita for roads, public sanitation, parks, and lighting incressed with increased density – incomes, central government subsidies, population growth held constant. This maybe have been expected due to a faster population increase in more densely populated areas. However, population increase – percentage change over the last five years – has a negative influence on expenditures per capita. Of course there is an increase in expenditures but evidently this is smaller than the population increase. The impact of urbanization on the size of the communal sector seems to stem from settlements becoming more dense rather than movements of people. This then I have chosen to interpret as communalizing. In towns and more densely settled areas the local government sector is larger than in rural and more sparsely settled areas. And this is because formerly private activities are taken over by municipalities.

This is something that occurs in other fields as well, most pronounced in the field of municipal industrial activities, like garbage collection and disposal, sewage, water, heating, electricity, gas, but also in the fields of communications and housing.

The study of the impact of density on per-capita expenditures in these fields give rise to still another hypothesis. There is in the first place a marked hierarchy among municipalities when it concernes these activities. Small towns engage in water-supply and sewage. Larger towns do this plus engage themselves in energy production and distribution. And the largest towns add heating, garbage collection and disposal, public transportation and public housing.

This could be interpreted as stages of densities, each having its own advantages for communalizing different activities. However, it is striking that when aggregating these activities, the explaining power of density rises dramatically. This makes me wonder if it isn't so that the process of communalizing takes place

8

over a long period, that a municipality cannot take over all of these services in one stroke and that it is to a considerable extent a random process which of these services comes first.

If this is so it would have an important bearing upon the expansion of the communal sector. One would expect that urbanization should give rise to increased expenditures with a considerable lag. As a community has achieved a certain density it first has to take over roads and create parks. Water supply and sewage are solved in the process of building new houses, but sewage treatment could be added later on. Public cleaning is introduced next' and later on perhaps, the municipality takes over garbage collection and disposal from private handling and private firms. Public housing, transportation and so on are introduced as time wears on and the investment program for earlier commitments is completed. The impact of urbanization streches over a considerable time period. On the other hand, local government expansion will eventually cease by itself.

Let's look at the long term changes in urbanization and expenditure increases (table 3).

There are marked fluctuations both in the increase in urban population and expenditures. High rates of expenditure increases have occurred 1910-30, 1945-50, 1960-70 and 1975-80. The first period followed a period of very fast increase in urban population. It lasted maybe ten years after the surge to the towns ceased. Already 1935 a new wave of urban population increase started, lasting up until 1950. Expenditures caught on from 1945 but slowed down in the 50's. Parallell with a slight increase in urbanization in the 60's there is corresponding increase in expenditures. The marked slow down of urban population increase in the beginning of the 70's is coupled with a slow down of expenditure increase.

	Population	Total expenditures
1900-1910	2,63	2,81
1910-1920	2,29	5,21 5,62
1920-1930	1,10	5,9
1930-1935	1,51	2,83
1935-1940	2,22	1,74
1940-1945	2,66	3,0
1945-1950	3,46	8,0
1950-1960	1,58	4,6
1960-1965	1,98	6,6
1965-1970	1,81	6,5
1970-1975	0,64	0,9
1975-1980		4,35
<sup>1</sup> Only consu	umption	
2 1913-20	3 1930-36 4 1934-1940	<sup>5</sup> 1975-79

# Table 3.Yearly increase in urban population and total local<br/>government expenditures, in real terms 1900-1980

Over a longer period it seems that present rates of communal expenditure increases are quite normal. The unprecedented low growth of urban population since the early 1970's indicate that what might follow in the 80's is a slow-down of local government expansion. See table 4.

	Investment	Consumption	Transfer
1950-55	9,0	5,9	8,0
1955-60	4,6	3,7	6,3
1960-65	11,2	4,5	5,6
1965-70	8,3	8,6	13,5
1970-75	-4,2	3,7	5,3
1975-79	0,3	3,7	2,3

# Table 4.Yearly increase in local government investments con-<br/>sumption and transfers per period in real terms.

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From this table we see that while consumption has continued to increase in the 70's investments have litterally plunged. Also local government transfers have had a slower growth in the late 70's.

Concluding this perspective it is quite apparent that the local government sector has slowed down it's growth already. This retardation has little to do with central government actions. To a substantial degree it seems to be the result of a slower growth of urban population. The negative effect on investments is quite pronounced. This makes us expect an even more retarded consumption increase in a nearby future.

The prospects for the local government sector is a much retarded growth. Add central government cut-down and restrictions for local government subsidies and financing and we might witness a sharp down-turn of the sector as a whole.

#### CREDIT POLICY, INVESTMENTS AND LOCAL GOVERNMENT TAXES

The by far most established means to control the local government sector with is credit policy. However, both the impact on local government and, in case of such an impact, what effects it causes is open to question.

Let's first take a look at how local governments change their lending in times of credit squeeze. Such a squeeze took place from the middle of 1969. If central government can control such lending as from bonds, central government pension funds and the like it is interesting to note that the part of lending from commercial banks, saving banks and other private sources increased from 14,7% 1968 to 53% 1970. From 1969 to 1970 local governments increased their net lending by 9,7%. Of course this meant a 22% increase in short-term debts 1970 in municipalities and 12% in counties. Lending became more costly but the credit squeeze didn't halt investments and consumption during these years.

There is much evidence that credit-market conditions affect the local government sector with a lag of one to two years. Diagram 2 pictures the change in net lending in comparison with the change in capital outlays for municipalities.

To some extent it can be said that capital outlays are influenced by net lending. Some peaks and troughs in net lending precede the peaks and troughs in capital outlays. This is the case 1953, 1955, 1956, 1957, 1960, 1962, 1963, 1966, 1968-69, and 1971. A dominant impression however is that net lending varies much more than capital outlays. In other words, net lending doesn't have an immediate effect, nor do the yearly fluctuations affect the yearly capital outlays, rather it seems that accumulated net lending might render such an effect.



#### Diagram 2 <u>Percentage change in capital outlays (excluding amor-</u> tization and interests) and net lending, municipalities

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Of course this is just a glimpse of a much more complicated system of relationships. However it gives an image of the mechanisms at work. We shall take another glimpse that is relevant for the impact of the credit market on local governments.

This time we look upon the impact of the credit market in the form of short-term debts held by local governments. Increasing short term debts signals credit restrictions. In diagram 3 below we can see how short-term debts increase. There are marked periods of rapid increase that fall within the shaded areas. These areas make up periods of generally high economic activity in Sweden. The increase culminates late in the period of high economic activity. That is when a combination of pressures work on local governments; credit market limitations have become effective, price rises have undermined liquidity and tax receipts might increase slow due to a two year lag in disbursement - distributed means then come from the preceding period of low economic activty. Immediately following this culmination comes a sharp decrease in the accumulation of short-term debts in the period of low economic activity that ensues, that is when credit markets ease. This shows in the earlier diagram as a sharp increase in net lending. The relation is obvious the years 1956, 1960, 1962, 1964, 1966/67, 1971, 1974/75 and 1978.

But this, then, as the diagram indicates is only one part of the system of relationships. The diagram also shows changes in tax rates. There is another way to consolidate finances and to rid the balance-sheet of short-term debts. The largest increases take place on the verge of or in the middle of a new period of low economic activity. The timing of tax rate changes, from a stabilization point of view, isn't what could be desired, to say the least.

When comparing the efforts to limit tax rate increases in table 1 with the real tax rate changes and their relation to the financial needs of the local government sector the efforts seem to have had very little effect.

The pattern that emerges is a slow, accumulating worsening of the local government economy in times of high economic activi-



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ty. This proceeds up until the next recession. During that local governments reconstruct their economy, raising taxes and taking up loans and prepare for another period of financial difficulties.

What seems to motivate the behavior is a strategy to continue to carry out expenditure plans undisturbed of general economic conditions. Of course expenditure plans do not go altogether unaffected, which we will see shortly.

#### LAGGED IMPACT ON EXPENDITURE

The change in capital outlays seemed lagged in relation to changes in net lending. I shall present some other evidence on the lagged impact but first investigate some mechanisms that make it possible for the local government sector to withstand stabilization efforts.

In a study for the government commission that dealt with these problems I found that municipalities and counties facing rapid increases in current expenditures have no reason to panic, since their incomes increase along with expenditures. Survey data show that as local governments revise their plans for current expenditures upwards - which is usually the case - they simultaneously revise their plans for incomes upwards. This concerns total incomes including tax receipts just as well as central government subsidies, fees, rents, interests and other sources of incomes. Stabilization policies working via the general price level or the interest rate are to a considerable extent cushioned when they hit the local government sector.

As expected when plans for new loans are revised this has no connection at all with investment plans. There is - contrary to all orderly planned municipal finances - a negative relationship between investment plans and foreseen budget surpluses or deficits. This can be inspected in the diagram below.

### Diagram 4 Revision of planned budget outcome and investments, municipalities



The diagram shows - in percentages - the revision of plans from november one year ago to present time for the present year. So when municipalities in november try to forecast the present year's outcome of the budget and this shows a smaller deficit or a larger surplus than was forseen one year ago this goes together with an under-shooting of investment plans. If on the other hand investment plans are revised upwards this calls forward a larger budget deficit or a smaller surplus than expected.

The impression is - in line with earlier observations - that plans are carried out regardless (in the short run) of financial restrictions. Only later on are plans maybe revised, but the revision might just as well take place on the side of incomes. This is highlightened by the next diagram.

Total expenditures and total incomes are to a considerable extent revised in the same directions. However, the matching is not perfect, and the discrepancies give rise to forseen budget deficits and surpluses. Points above the 45° line imply a larger budget deficit than planned (or smaller surplus), points below a smaller deficit (or larger surplus). There are three points far above the line, representing the years 1964, 1965 and 1969. The years 1964, 1965 and 1966 municipalities undertook their sharpest tax rate increases since the Korean inflation. They raised the tax rate by 5,4, 4, 2 and 5,5% respectively. In 1963 tax rates were not raised at all and in 1967 they were raised by 0,8%. Also, 1969 and 1970 show tax rate increases of 3,9 and 3,1%, whereas 1971 has a tax rate decrease of 0,9%, following the year 1970, which is the point farthest below the line.

#### REGULATIONS

The local government sector expansion has by local politicians been blamed on the central government. New regulation, legisla-

Diagram 5 Revision of planned incomes and expenditures, municipalities



19

tion and implicit demands by the central government and its authorities have forced local governments to increase expenditures. Central government has not, until recently, had much sympathy for this view: the local government sector expansion is a consequence of their self-governing status, especially their constitutional right to levy taxes.

I have tried to appreciate the extent of central government control by legislation, specially tailored for local governments. Local governments in Sweden are governed by a general law stating their authority. Other laws either limit their authority or extend it explicitly into fields otherwise prohibited by the general law. Some tasks are delgated to local governments on a voluntary basis, other tasks are obligatory.

Measured in terms of expenditures, including investments, tasks are classified into the categories obligatory, voluntary within extended authority, regulated (but still voluntary) within general authority, unregulated within general authority and obligatory within general authority. The table below gives the relative importance of these categories in 1968 and nine years later.

Round 40% of the expenditures of municipalities are obligatory. This doesn't confirm the local politicians' view that their sector is governed from above. And there has not been any substantial increase. In fact the increase is due to new legislation shifting day-care centers to this category from voluntary tasks within extended authority. Central government hasn't used its power to increase activities within what is obligatory tasks more than the other voluntary activities have increased.

	Extended an Obligatory	uthority Voluntary	General authors Regulated	ority Unregulated	Obligatory
1968	41,8	9,9	14,6	33,2	0,5
1977 unchanged laws	39,5	19,9	9,6	30,4	0,6
1977 new laws	44,3	15,1	9,6	30,4	0,6

# Table 5.Central control of municipal expenditures, percent<br/>of total

However, regulation might work on expenditures even if the tasks are not voluntary. Voluntary activities within extended authority have expanded twice as fast as the budget as a whole. Municipalities display an amazingly loyal attention to central government reform demands. Regulation of general authority activities seems to have had a retarding influence in comparison to the unregulated sector.

Concluding: even if central government is made responsible for each and every activity that is in some way regulated – which is absurd – those activities have expanded only slightly more than the completely unregulated activities that expand on the wish of local governments.

What is despairing in the analysis of regulations is that we don't know if regulations really regulate anything. This is contrary to the impact of prices, taxes, fees etc. that we know affect the economic agent. The obligatory tasks, are they really obligatory? In the case of primary and secondary education municipal obligations seem sufficiently well defined for these regulations to be effective. But in the case of old-age homes obligations are much less precise.

Some efforts to determine the strength in central government regulations have been made. The first one I will report (Murray, SOU 1980:6, chapter 7.2) is an analysis of current expenditure differences between municipalities. The reasoning is that if government regulation is comprehensive and effective this will result in small per-capita differences, compared with areas in which there is little or no regulation. Implied is of course that government regulation aims at uniform standards and that these can be measured in current expenditures per capita.

The cross-section analysis previously referred to showed that settlement characteristics have a strong impact on expenditures. I interpret this influence as an expression both of varying production possibilities and of varying responsibilities. Small municipalities with large rural areas may be at a disadvantage in providing general administration, schools and communalization of private activities hasn't proceeded very far.

Suppose percent of population living in urban areas, population density per square km and ten dummy-variables for type of settlement (big cities, suburbs, cities, regional centers down to villages) represent both production possibilities and responsibilities. Explaining per-capita expenditures with these variables by multiple regression is synonymous to taking away that part of the variation in expenditures that is due to these circumstances. What is left is interpreted as differences in standard.

In table 6 figures tell in percentage how wide about the mean the range is for two thirds of the observations after the effect of

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the above mentioned variables has been eliminated. For education two thirds of the observed per-capita expenditures lie within 15% of the mean<sup>1</sup>. Also, the table exhibits that part of expenditures which is altogether unregulated.

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Although the matching is not perfect there is a striking association between the unregulated share of expenditures and the variation in standard. Regulation has teeth enough to show up in expenditure patterns.

# Table 6.Estimated variation in standard and the unregulatedpart of expenditures, percent

	Variation in standard	Unregulated activity
Harbours, public transportation	116	97,2
Industrial activities	46	67,9
Town planning, roads, parks, sports	26	58,8
Public housing, real- estate administration	30	56,9
Central administration	34	32,2
Education and culture	15	19,7
Social security and welfare	20	1,2
Civil defense, fire services	21	0,0

 $<sup>{\</sup>rm l}$  Actually it is the standard deviation remaining in percent of the mean.

Further evidence along this track is that fire services, school buses and rent subsidies - activities that are strongly regulated (rent subsidies by central government subsidy conditions) - do not exhibit any influence from the tax base, political majority or any other variable that could represent economic conditions or preferences. And this is contrary to other municipal activities in the same cross-sectional study.

A final verdict on the importance of regulations is the following. The story told is also how regulations as a set of permanent restrictions influence the behavior of local governments when local governments react to stabilization policy measures and other changes in the economic environment.

When total expenditures change, expenditures on different accounts will change too, more or less in proportion. A unit elasticity with respect to budget changes makes the specific account change in the same proportion. This is illustrated in diagram 6.

Now, if regulations are such that the real activity on the specific account remains the same while expenditures increase in proportion to the general price increase and the general price increase is what blows up total expenditures, then there should be something like a relationship along the  $45^{\circ}$  line. If on the other hand there is a real increase in total expenditures there should be a relationship more like the line crossing the  $45^{\circ}$  line from above in diagram 6a.

If regulations stipulated a constant change in nominal terms the line would be horizontal.

A flexible activity would be expected to increase more than total expenditures in times of rapidly increasing real expenditures and less in times of slowly increasing total expenditures. The pattern would be something like that in diagram 6b.

#### Diagram 6

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An activity subjected to frequent changes in central government regulation or in external conditions with a bearing on the regulated activity should exhibit no relationsship at all with total expenditures. That is the final diagram.

The following diagrams show the variability of separate municipal expenditures for the years 1946 through 1967 (new accounting principles from 1968 on would require a separate analysis).

Some observations are of interest.

Judiciary, taxing and other administration is a strictly regulated area. Inflation will hit the area hard due to a high personal intensity. Except the years 1965-1967 when several activities were taken over by central government the scatter resembles - as predicted - diagram 6a. Regulations evidently influence expenditure variations - in this case they induce lower expenditure elasticity than the average.

Variations along the 45° line could either reflect activities with strict regulation and an exceptionally high impact from inflation this could be the case for primary and secondary education - or activities with an average income elasticity - this seems to be the case for central administration and power, heat, water and sewage. Fire services are strictly regulated but has a fair amount of investments and ought not , therefore, vary strictly proportionally to total expenditures. Since they do there seems to be a spontaneous variability on behalf of municipal interests.

Regulations can show up in other ways as well. When expenditure variations are completely unrelated to variations in total expenditures on areas which are highly regulated variations can be taken to reflect outside influences due to changes in regulations. Civil defense is such an area. Central govenment controls completely the building of she ters and call ups to military serice (municipalities pay out family allowances). Old age pensions is another example.

The shower of dots for social security and welfare reflects changes in underlying provisions that affece expenditures via regulations. One example is variations in unemployment which causes social welfare benefits to vary.

Several other areas look like diagram 6b. They indicate high income elasticity and lack of regulations and outside influences. Areas like real-estate administration and public housing, building control and planning, roads and parks, harbour authority, old age homes and services, child care, health and hospital services, sports and recreation have this pattern. Except old age homes and services, health and hospital services these areas do really have little regulations. The latter areas are obligatory tasks, however, regulations are very vague and evidently not effective.

## Diagram 7 Judiciary, taxing and other administration, yearly changes in expenditures compared with yearly changes in total expenditures, percent



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# Diagram 8 Central administration, yearly changes in expenditures compared with yearly changes in total expenditures, percent



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# Diagram 10 Fire services, yearly changes in expenditures compared with yearly changes in total expenditures, percent







#### Diagram 13 Roads and parks, yearly changes in expenditures compared with yearly changes in total expenditures, percent





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## Diagram 16 Power, heat, water and sewage, yearly changes in expenditures compared with yearly changes in total expenditures, percent



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### Diagram 19 Old age homes and care, yearly changes in expenditures compared with yearly changes in total expenditures, percent



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## Diagram 20 Social security and f welfare, yearly changes in expenditures compared with yearly changes in total expenditures, percent



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### Diagram 21 Child care, yearly changes in expenditures compared with yearly changes in total expenditures, percent

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# Old age pensions, yearly changes in expenditures

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## Diagram 23 Health and hospital services, yearly changes in expenditures compared with yearly changes in total expenditures, percent

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#### Diagram 24 Sports, recreation, yearly changes in expenditures compared with yearly changes in total expenditures, percent

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## Diagram 25 Financing, yearly changes in expenditures compared with yearly changes in total expenditures, percent

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#### SUBSIDIES

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This leaves central government subsidies out of the picture. In table 7 we can see the importance of subsidies for different categories of activities.

# Table 7.Central government subsidies in relation to expendi-<br/>tures.

	Extended authority		General author	Total		
	Obligatory	Voluntary	Regulated	Unregulated	Obligatory	
1968	25,5	20.7	24,6	4.4	0.0	17.8
1977	28,8	26,6	28,8	1,8	0,1	20,3

Subsidies have increased in relation to expenditures, but this is so for almost all categories.

In order to come to grips with the importance of subsidies I distinguished between those activities that were subsidized and those not. The classification was done on financial statistics which meant that all expenditures on one account were counted as subsidized if subsidies occurred on that account. If all activities on an account can be considered as substitutes this might be defendable.

In the next table that part of expenditures which is subsidized is presented.

#### Table 8. Activities subsidized in relation to all activities, percent

	Extended authority		General author	Total		
	Obligatory	Voluntary	Regulated	Unregulated	Obligatory	
1968	64,7	56,0	77,1	29,2	0,0	53,5
1977	79,7	74,4	55,8	38,6	1,5	63,5

Activities with central government subsidies make up a larger proportion of municipal activities 1977 than 1968, that is quite clear. But the table doesn't say whether subsidized activities expand faster than other activities or whether new subsidies have been introduced.

Restricting the comparison to those activities that were subsidized both 1968 and 1977 their share has <u>decreased</u> from 53,5% to 51,4% of total expenditures. This tells us that subsidies don't necessarily have an expansionary effect.

But this concerns only subsidies that are already introduced. Let us look at those activities that became subsidized during the period. In 1968 they made up 8,2% of total expenditures, in 1977 12,1%. Introducing subsidies consequently has a stimulative effect.

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This seems logical. It is when subsidies are introduced that the cost for an activity drops relative to other activities. This should call forward an increase in that activity.

The cost-price effect on a single activity is well demonstrated in the case of day-care centers. In a study of the impact of subsidies on the creation of such centers over the period 1960-1975 (Murray 1981) I found a quite powerful effect from the net cost per place relevant to municipalities. Of course the net cost changed because of other influences as well. If costs to the municipality were reduced by 1.000 Sw Cr per place (1968 prices), no matter how, an estimated 12.600 more places were demanded by municipal decision-makers. It takes time to create these places and the rate is determined by things such as unemployment, credit market conditions and subsidies to construction expenditures. Subsidies worked two ways: both via the cost per place and via investment financing. The latter effect occurs only if there is an unsatisfied demand - on behalf of the decision-makers - for daycare centers.

There is in this case a prolonged effect: the unsatisfied demand is not worked away in one year. Depending upon the above mentioned circumstances more or less of the gap is turned into real places. Something like 15% of the gap might materialize in one year. So the effect goes on for several years before it ceases. There again is a reason to expect the local government sector to halt it's expansion in a nearby future, since the introduction of new and better subsidies have ceased and the effect of new subsidies in the period 1968-77 should taper off. (Se also table 9). Subsidies may have an effect apart from the cost-price effect that should be mentioned. That is the pure income effect. I have estimated that effect in the cross-section study I mentioned earlier. In that study I find reasons to reject the hypothesis that the total amount of subsidies to the single municipality should be determined by expenditures rather than the other way around. Various parts of the municipal budget exhibit an impact from total subsidies which is quite similar to the impact from total subsidies less those subsidies going to that particular part. The effect of block grants on total current expenditures is just the same as the effect of the sum of matching grants when estimated simultaneously.

The estimated effect of the sum of subsidies on current municipal expenditures is 1,32 Sw Cr per one Sw Cr of subsidies. The effect on the sum of municipal and county current expenditures is very close (1,34).

In the former estimate block grants were separated from the rest. Since block grants mainly appear in the form of additions to the tax base, which influences the yield of the local tax rate and the amount of subsidy is determined both by the addition to the tax base and by the tax rate chosen by municipal and county governments, the effect emanates from the additions to the tax base. An added Sw Cr to the tax base promotes an increase of current municipal expenditures of 0,08 Sw Cr. This implies that municipalities take the opportunity to lower the tax rate when they receive these grants.

The effect from central government additions to the tax base is less than the effect from real differences in the tax base. A municipality with a tax base 1 Sw Cr higher than another will have 0,15 Sw Cr more expenditures. This seems logical and the central government additions to the tax base can be viewed as a general price decrease of municipal consumption. From this one can draw the conclusion that if central government aims at a reduction of tax rates while wanting to limit local government expenditures, grants should be modelled into additions to the tax base rather than flat sums. Flat sums has been used on those occasions when agreements of tax rate limitations have been made.

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With the impact of subsidies on local government current expenditures in mind it might be interesting to reckon the change in total subsidies over time.

# Table 9.Central government subsidies to local governments,<br/>yearly change, percent. 1950-80.

	Subsidies for				
	current expenditures, including block grants	investment expenditures,		current expenditures, including block grants	investment expenditures,
1950}H 515H	21,3	22,1 4,8	1966) 67 {L 68	20,6 46,8 9,0	9,0 18,7 6,2
535 <sup>L</sup>	4,4 4 7	58,6 32,6	69 1970}H	12,1 14,8	16,6 18,7
55 H 56 J	7,4 15,0	2,2 16,5	71) 72 L	4,4 24,1	-1,0 51,1
57	11,8	2,3	73)	17,6	-6,0
58] 59}L	50,5 10,2	22,0 16,9	74 ) 75 H 76 J	18,0 15,3 16,4	0,8 3,4 13.6
1960}H 61}H	6,9 1,2	32,4 23,8	77 78}L	21,0 20,5	12,3 -10,0
	18,4 8,2	8,3 15,2	79 1980 H	15,1	4,5
647 65]H	10,5 1,1	22,5 22,0	-		

- H High economic activity
- L Low economic activity

Source: National accounts.

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The 70's stand out as an exceptional period with rapidly increasing subsidies. The increase in local government consumption seems to be related to this increase. If the goal of a 5,3% yearly increase 1980-85 is reached this is a tremendous decrease in expansion with consequential effects on local government expenditures.

#### SUMMARY

Conclusions pertaining to the need to control the local government sector are that the need is apparent concerning the timing of tax rate changes and other stabilization aspects of local government behavior. While it is difficult to achieve more by the use of credit market policy it is apparent that a coordination of central government subsidies possesses underutilized possibilities.

When it comes to the growth of the local government sector several facts indicate that the growth will dampen almost by itself in the immediate future: population growth in urban areas has been extremely low for ten years, as a result investment activities have plunged and local government consumption will consequently expand more slowly, the effect of new subsidies in the 70's will fade in the 80's, central government is making heroic efforts to stop new expenditure increasing regulation.<sup>1</sup>

Whether central government is in control of this process or not is an open question depending on the judgement about central government power to control urbanization - by building control? and its own organization, consisting of many authorities with considerable autonomy.

<sup>&</sup>lt;sup>1</sup> For a representative and completely different view see Lybeck (1981).

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