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## **Stable growth with slow and expensive adjustments**

An essay on the old OECD countries using Denmark as an example

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This essay looks at crises in the OECD area, which is *the* area in the world that has experienced the smallest crises during the second half of the 20<sup>th</sup> century. It presents two seemingly contradictory points:

(i) In a comparative perspective the OECD countries have had an unusually stable growth. This point is demonstrated in two ways: Section I looks at the evidence on comparative volatility and gives some examples of the robustness of the underlying growth to shocks. Section II looks at the large structural changes in the OECD countries. It is remarkable that economic growth has been robust to such large structural changes. The second half of section II considers new developments of the economic system that might help keep it stable in the future.

(ii) The slowness and great costs of adjustment to the only *big* crisis, *the Oil Crisis* of 1973, are discussed in section III. Several studies have been made of the slow adjustment of the developed countries in the Oil Crisis. Most are studies of individual countries, and I will use the example of my own country as the main illustration. I will first show that Denmark is a typical case, and then look at the political economy of the adjustment.

The contradiction between the two points (i) and (ii) is discussed in the conclusion. The reader should be warned that this is a heroic essay. The perspective is half a century, and many brave assessments are given.

Table 1. The standard terminology

Short name	Adjustment	Reform <sup>a)</sup>	Transition <sup>a)</sup>
Long name	Stabilization package	Structural adjustment (SA)	Big structural change
Character	Policy instruments changed	Qualitative and institutional change	Change of economic system
External help	IMF balance of payments cure	IMF-IBRD-liberalizing package	No single approach
Time horizon	1-3 years	5-10 years	2-3 decades

Note a: During the last 25 years only changes from a more to a less regulated economy occurred.

## I. Relatively low variability and robustness to shocks

The standard crisis terminology is given in table 1. Like all countries the old OECD countries have needed stabilization policies from time to time.

Only New Zealand has made a policy package large enough to be termed a Structural Adjustment, but then New Zealand for long followed a policy taking the country away from the mainstream.<sup>1)</sup> Even the policy changes of Margaret Thatcher and Ronald Reagan are not normally deemed so large as to merit the term Structural Adjustment.

What is normally called a reform in an OECD country is a new public spending program, or a revision of an old one to follow a new set of principles. Such reforms are not meant to influence the growth path of the economy, except perhaps very indirectly. What is considered is exclusively economic reform.

First, the evidence that compares economic variability in the regions of the world is considered. Then a set of examples discussing aspects of the stability is presented.

### *I.1 A look at the data: The most stable region in the world*

The most comprehensive study of the volatility of different parts of the world is probably IDB (1995). Table 2 gives a typical sample of the results, which show large differences.

Table 2. Relative volatility of OECD countries 1970-92

		Sd of real growth rate	Sd of rate of inflation	Change of real exchange rate
Absolute	OECD area	2.2	3.9	4.8
Relative	OECD area	1	1	1
	Africa (sub Sahara)	2.4	22.7	4.8
	Latin America	2.1	118.9	2.8
	South Asia	1.5	2.0	(1.5)

Note: Sd is standard deviation. Numbers are weighted by population of country. Source IDB (1995) and Gavin & Hausman (1997). The pattern stays rather constant after 1992. The number in the bottom right corner is a guess bases on scattered evidence from other sources.

The calculations reported in table 2 use weighted averages. Volatility decreases when countries are larger. However, nearly all of the decrease is at the low end when microstates are compared to small states. From about 1 mill inhabitants volatility barely decreases, as larger countries are considered. The pattern in the results is therefore robust to the weights.

The most dramatic results in table 2 concern the volatility of inflation. Inflation rates are roughly proportional to the standard deviations of the rates,<sup>2)</sup> so the differences in the volatility of inflation reflect similar differences in average inflation as well. The rates of *domestic* price rises have correlations of about 0.6 in the OECD area (see Paldam, 1994), while the big Latin American and African inflations are all homemade and uncorrelated.<sup>3)</sup> Consequently, the more countries isolate themselves from the world market, the more inflationary they become.

Table 3. Main aspects of the relative stability of the West

Level		LDCs: Poor and middle income countries	West: Rich countries
Deep	A1	Dualism, uneven growth, large inequality	No dualism, steady growth, moderate inequality
	A2	Unstable political system	Consolidated political systems with stable parties
Concrete	B1	Large primary sectors dependent on nature	Small dependency upon nature
	B2	Export of few goods to few markets	Export of many goods to many countries
	B3	Protection allows internal forces a free play	Discipline of big external openness

The main explanations of the differences in volatility are listed in table 3. None of the explanations are mutually exclusive. The two deep explanations deal with the development process itself. Only rich countries grow at the technological frontier, where productivity gaps are small between the sectors, and income distributions are reasonably equal. LDCs – notably middle income countries – have large productivity gaps between sectors, and therefore both a more uneven growth and a skewer income distribution. Hence, it is difficult for political regimes to achieve legitimacy and stability.

IDBs analysis attempts to sort out the importance of the three concrete explanations

(B1) to (B3) from table 3. It was concluded that (B3) dominates.<sup>4)</sup> The most volatile countries have normally isolated themselves from the world market dispensing with the discipline of openness. This has given much extra force to domestic shocks.

This story has a tragic irony. In the heyday of the *Import Substitution Strategy*,<sup>5)</sup> many LDCs isolated themselves from the world market precisely to get protection from its alleged volatility. The result has been the opposite, even in countries like the three southernmost Latin American countries, which were close to European wealth as late as 1950.

### *1.2 Shocks and disequilibrium*

Another approach to volatility is to consider the relationship between shocks and disequilibrium. The ability of the economies to absorb shocks depends upon the equilibrium/disequilibrium situation in the country when it is hit by the shock. Countries in equilibrium can absorb moderate shocks, while countries far from equilibrium can be severely upset even by small shocks.

The external balance of a country<sup>6)</sup> is a fine meter of disequilibrium, and in addition it enforces early adjustment. With sufficient protection large disequilibria can develop, making adjustments to shocks much more difficult. Our argument is thus that a main reason why the old OECD countries have been so shock resistant is that they were (still are) so open that they have been forced to keep their economies in reasonable equilibrium.

During 1950-73, nearly all OECD countries had budgets that were balanced within  $\pm 2\%$  of GDP, balances of payments were largely within  $\pm 1\%$  of GDP, and neither external nor internal debts accumulated. However, towards the end of the 1960s most OECD countries developed some “joint” disequilibrium.

The two main signs of disequilibrium were *internal*: Unemployment was for more than a decade well below the natural rate, and consequently inflation rates rose slowly. A rise that for long went unnoticed as inflation started around 2% in the 1950s, rose to 4½% in the 1960s and reached 7-8% in the early 1970s. The logarithm to the inflation rate in the average OECD country is virtually linear with a small positive slope from the early 1950s to 1973. The price level accelerated much as predicted by Phelps (1967) and Friedman (1968), so it is no wonder that the expectations augmented Phillips curve became the accepted theory in the early 1970s. However, polled data show that few people form inflationary expectations, so the

theory builds on tricky arguments where people behave *as if* they formed inflationary expectations.<sup>7)</sup> The end of section II.2 deals further with this argument.

### *I.3 Learning discipline – some cases*

The story above thus confirms the *discipline* argument: External openness forces countries to behave responsibly. If the economy is closed, no politically convincing argument exists to stop unions and firms from inflating the economy. Governments may want to reduce inflation, but they also want to achieve domestic peace in the short run by allowing “nice” settlements to strikes and other labor unrest. They have political friends to reward, etc. Under such circumstances it becomes impossible for the central bank to be the one and only nominal anchor.

This argument has a twist: I believe that the evidence demonstrates that policymaking in all countries (normally) *has a time horizon of less than a year*.<sup>8)</sup> It is hence crucial to have a mechanism that quickly gives a hard problem if countries behave “irresponsibly”. The external balance is probably the best such mechanism.

Most of the OECD countries have learned discipline the hard way, already in the 1950s. Consider the stories of Finland and France in the late 1950s. Both countries had episodes of excessive wage-price rises. France experienced large scale labor unrest 1957-58, causing excess inflation of at least 25% over the world level. This caused two large devaluations, and a political change from the 4<sup>th</sup> to the 5<sup>th</sup> Republic. After the events had settled, it became clear that nobody had benefitted from the process. Finland went through even more dramatic inflationary events in the 1950 and 1960s, before the country reached something like an (implicit) internal stability pact. Having learned this lesson, both countries became economically successful.

One of the most divergent cases in the OECD area is Iceland, which deliberately introduced a system that used the exchange rate to handle conflicts over the distribution between a highly volatile resource-based export sector and the rest of the economy. It caused the Icelandic economy to be one of the most volatile in the OECD area, and the Icelandic Crown devaluated by 8 times between 1948 and the late 1970s,<sup>9)</sup> when the system was gradually abolished. It is impressive to see how much better the economy has behaved after that.

Another piece of evidence of stability is the small effect of strikes (see Paldam, 1983).

The OECD countries have differently organized labor markets generating vastly different frequencies of strikes. A standard statistic available for many countries is the relative number of days lost to strikes. In the strike prone-labor markets in Latin Europe and the Anglo-Saxon countries, this number is about 20 times higher than in the Germanic-Nordic countries. In neither case is it easy to find a macro relationship between the number of days lost and annual production.<sup>10)</sup> Even the “events” of May 68 in France, where most of the country was paralyzed for a month, left little (if any) impact on the annual real GDP.

#### *I.4 Occasional financial and exchange rate crises*

Financial crises have hit several OECD countries. When the Debt Crisis broke out in 1982, the US banking system was legally bound to write down its assets in the indebted (mainly Latin American) countries by more than its equity capital. So in principle the US banking system was bankrupt. This was not, of course, allowed to happen, and the Debt Crisis did not cause a crisis in the OECD area. In fact, it is hardly even visible in the growth rate of the average OECD country, while it caused a full decade of almost zero growth in Latin America.

However, Finland and Sweden had a financial crisis in the early 1990s much like the Asian Crisis 10 years later.<sup>11)</sup> The crisis broke out due to the large drop in the export from Finland to the Soviet Union. The crisis spread to Sweden due to large flows of hot money, and a collapse of the financial sector in Sweden caused by an overhang of bad debt (20-30% of GDP). This double crisis called for large-scale policy action where debt had to be consolidated and written off before the banking system could regain credibility. Like in Asia the result was a sharp, but rather brief crisis. The costs measured in accumulated annual GDP percentage points lost were in the order of 10-15 percentage points or slightly less than the corresponding figures from Asia.

Most OECD countries have had exchange rate crises without bank crises. They are normally dramatic and newsworthy, but afterwards they turn out to have had little effect on the underlying real economy. The UK has experienced several *pound crises* since 1948. The worst was probably the one in late 1967, which is sometimes (e.g. in the Encyclopedia Britannica) alleged to have caused the later downfall of the first Wilson government. However, the real growth rates for the UK in 1967 and 1968 are very close to the trend.

## II. Structural change and the development of the economic system

It is first demonstrated that the robustness of economic growth has prevailed in spite of large structural changes. Then it is discussed how the economic model of the West is developing. It is shown that it is developing in a direction that is likely to increase its robustness.

### II.1 *The 25 years of large scale structural change: 1948-73*

Growth in the OECD area has even been stable in spite of the large structural changes that took place during the last half century. In 1945-50 the agricultural sectors were as large as 10-20% in most OECD countries, while the public sectors were below 15%. Now the agricultural sectors are well below 2%, while the public sectors are between 20 and 25%. If transfer payments are included, public sectors are even twice as large.

The amazing fact is that this massive change took place in the short time span of 25 years, from the start of the stable currency system in 1948 until the crisis of 1973 broke out. It took a couple of years to get the development going, and during the 1960s the expansion in the public sector was even faster. The public sectors in the average OECD country grew by about 1% of GDP per year for the entire 25-year period. The simplest way to present the stylized fact is to speak of *two levels* for the public sector as shown in figure 1 (below):<sup>12)</sup>

- a. An old level of about 10% during the *Liberal Century* from 1818-1914
- b. A new level of 45% from the mid 1970s onwards
- c. A rapid transition between the two levels especially between 1950 and 1973.

Many writers have tried to estimate the growth pattern for the public sector, concentrating on the period after 1950. They have used models with three sets of mechanisms:

*Demand models.* The standard approach uses the median voter model to sweep politics under the carpet. Bureaucrats are assumed to be ideal *civil servants*, helping politicians to maximize the welfare of the median voter. The bottom line in table 4 shows that this explanation has a severe problem. It is difficult to think of a reasonable demand function for the median voter that produces income elasticities that vary as shown in table 4.



Table 4. The stylized facts of public sector growth in the OECD area

Period	1820	between	1910	between	1948	between	1973	between	2000
Public sector share at	10 %		10 %		17 %		45 %		45 %
Growth rate of GDP		3 %		3 %		4 %		2 %	
Growth of private sector		3 %		2¾ %		3 %		2 %	
Growth of public sector		3 %		3¼ %		6 %		2 %	
Implied income elasticity		1		1.2		2		1	

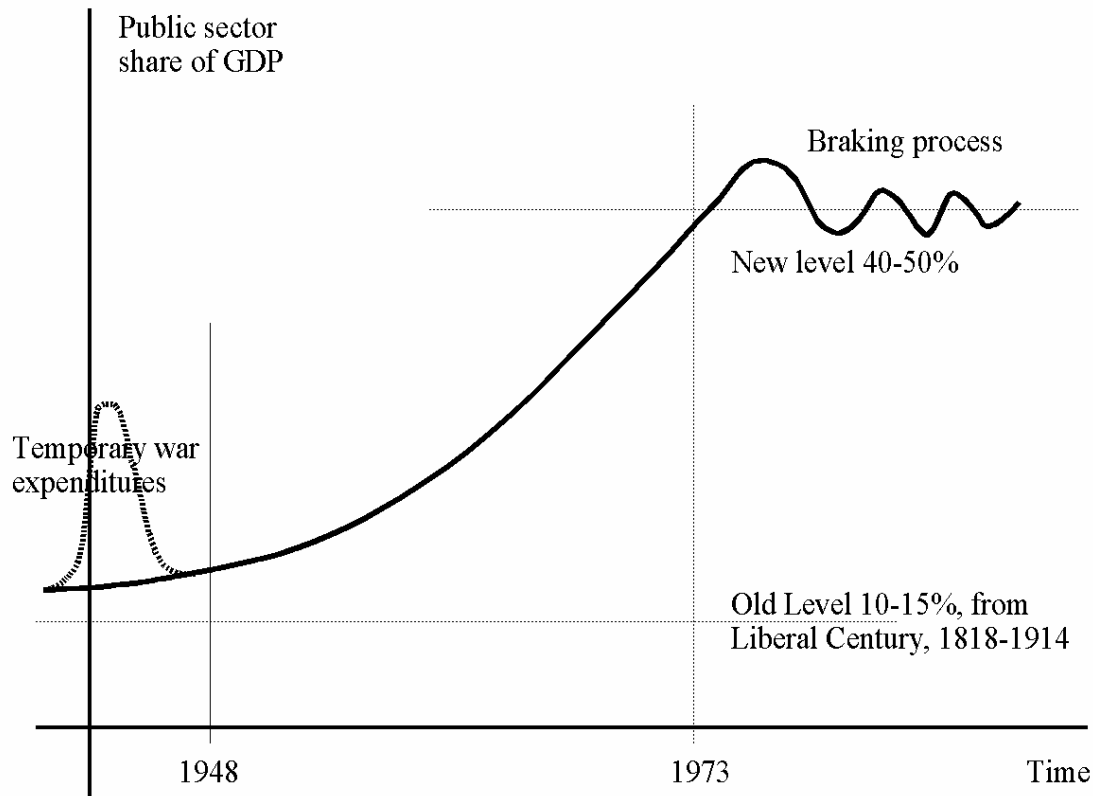
Note: The public sector is measured inclusive of transfers, including compulsory insurance schemes.

*Models of social and technological change*, which had an *old* stable pattern before The First World War and after a transition reached a *new* stable pattern after 1975. Two main changes are likely to be relevant:

(i) On *the demand side*, the demographic transition, and the mechanization of household production changed the family pattern from extended to core families. The extended family had considerable household production, including care for the young and old. The new core families have little household production and contribute much labor to the market, and thus needs institutions to care for the young and old. The change from the old pattern to the new happened a little earlier than the change of the public sector level. It was clearly a change that radically increases the demand for the public sector.

(ii) On *the supply side*, the ease and efficiency of taxation has increased radically. The underlying reason was the huge jump in the technology of bookkeeping, which made transactions and payments much more transparent. The new techniques caused most payments to leave an electronic trail for the tax-man to follow. This has allowed a much more efficient and broad-based taxation. A VAT and a pay-as-you-go income tax (in countries with wage shares of 75%) allow an almost distortion-free collection of at least 40% of GDP. Also, the transition of corruption from high to low has made taxation easier (see Paldam, 2002). Finally, it is important that labor supply functions are virtually vertical. Most people like to work. Hence, a large scale expansion of the public sector became possible.<sup>13)</sup>

Figure 1. The stylized path of the public sector in the OECD countries



*Public choice models*, which assume that politicians and bureaucrats are human beings who pursue their own interests within the constraints of the system. These models often build upon mechanisms where key variables are difficult to measure. A key model builds upon the information asymmetry between bureaucrats and taxpayers. It allows bureaucrats to increase budgets and slack. These theories do not explain why the relative size of the public sector increased, but they explain the inner dynamics in the rise once it started. That is, these theories help us to understand the smoothness and the tremendous inertia of the rise.

The smoothness of the rise makes it problematic to explain the rise by econometric models. Public sector growth series fail to provide the kinks and twists that allow us to distinguish between alternative explanations, and all models produce impressive  $R^2$ -scores.

An important consequence of the expansion should be noted: The great expansion solved the problem of absorbing the many new entrants to the labor market leaving agriculture and household production. So the large structural changes balanced neatly and even caused very low unemployment rates – far below the *natural rate*. Secondly, Europe was catching up with the USA.<sup>14)</sup> This is mainly the story of the 1950s and early 1960s as told by

Denison (1967).

## II.2 *The public sector push and the economic system of the big compromise*

This all worked together to produce the *Golden Period of the West*, where private and (especially) public consumption rose with an unprecedented speed and created a whole set of rich welfare states. The system change in the West therefore is that the countries moved from the *laissez faire* model of the Liberal Century to the *welfare state* model. Schumpeter (1942) predicted this development, and he further predicted that it would lead to the end of capitalism. However, as the welfare state developed, something else developed that he did not predict: The populations of the West came to increasingly distrust public ownership.<sup>15)</sup>

It has caused the economic system to be increasingly based upon *a big compromise* as also listed in table 5.<sup>16)</sup> (A) On the one hand the left obtained the welfare state. (B) On the other hand the right obtained secure property rights and free trade. The development of the Welfare State is thus a compromise between the moderate left and right, where the right got the efficiency of capitalism, while the left got social security, public goods and considerable redistribution.

Table 5. Four economic systems

		Property rights and foreign trade	
		Private and free	Public and controlled
Production of public goods and redistribution	Both low	Laissez faire	The ISI-model
	Both high	Welfare state	Socialism

The left in Southern Europe and Japan was so extreme that this compromise took longer to develop, and the USA hardly had a left. So the big compromise was first developed in North Western Europe, but it has gradually spread throughout the West.

The trade shares of the average Western country are even larger today than they were at the end of the Liberal Century, i.e. in the first decade of the 20<sup>th</sup> century. However, the non-trading public sector has increased by about 20% of the GDP, so the integration of the *private*

*sector* in world trade has increased by about 50%.<sup>17)</sup>

While the welfare state was being built, this was surely an unbeatable combination. Another question is whether it is viable in the long run. The argument has been made (most forcefully by Asser Lindbeck, 1995) that the welfare state destroys “work ethics” in the longer run, and thus undermines itself. So far the evidence fails to confirm that this is happening, and the welfare state is certainly popular among voters.

It is interesting to compare the development of the USA and the other OECD countries. The USA could not – of course – catch up with itself, and did not expand the public sector as fast as everybody else. As a result, the US unemployment remained reasonably stable around 5-6%. In most other OECD countries unemployment rates fell during the 1950s to about 2%, where they stayed till 1973. Then they went up to more than 10% and stayed that high for a long time. It is only now that unemployment rates of the West European countries are dropping to 5-7%. Perhaps a rate of 5-7% can then be taken to be the *natural* rate for a mature developed economy.

Towards the end of the Golden Period many idealistic and romantic beliefs came to flourish in the West (see Inglehart, 1977, 1997). The most extreme forms were seen in the *youth's revolution*, which preached *post-materialist* dreams and grand visions. It is common to ascribing the end of the Golden Period to expectations that got out of control, but then it should be recognized that the expectation process is really grand. It must include much more than a rise of inflationary expectations ( $p^e$ ) discussed at the end of section I.2. It became a widespread belief that the West had learned to “walk on water”: Full employment, social security and ever increasing wealth were secured once and for all. Time had come to go for immaterial goals – whatever they are.

### *II.3 Braking patterns after 1973*

The two-level theory of the public sector was shown in figure 1. It should ideally have a logistic form rising from the old level of 10-12% in the Liberal Century till the new level. The upswing to the left of the figure has a nice smooth form as expected, but the new level is not reached by a similar process.

The curves for countries like Denmark and Sweden from 1948 to 1973 look as if the upper convergence was to a new level well above 100%. So the process had to be stopped at

some new level, allowing a viable and stable relation between the public and the private sector. Part of the crisis after 1973 was that a smooth braking was impossible in most countries. The braking often occurred as drawn in a zigzag way. First, the budget went into a large deficit, while public spending shot up due to rising unemployment. Then a crisis occurred with public sector cuts. Next the public sector resumed its expansion once again, and was cut, etc. In the meantime new spending programs came along, such as spending to improve the environment. In some countries large building programs for heavily subsidized windmills were started to reduce the greenhouse effect, etc. Welfare expenditures are dynamic, as we all know, and it is difficult to prevent them from growing faster than the GDP.

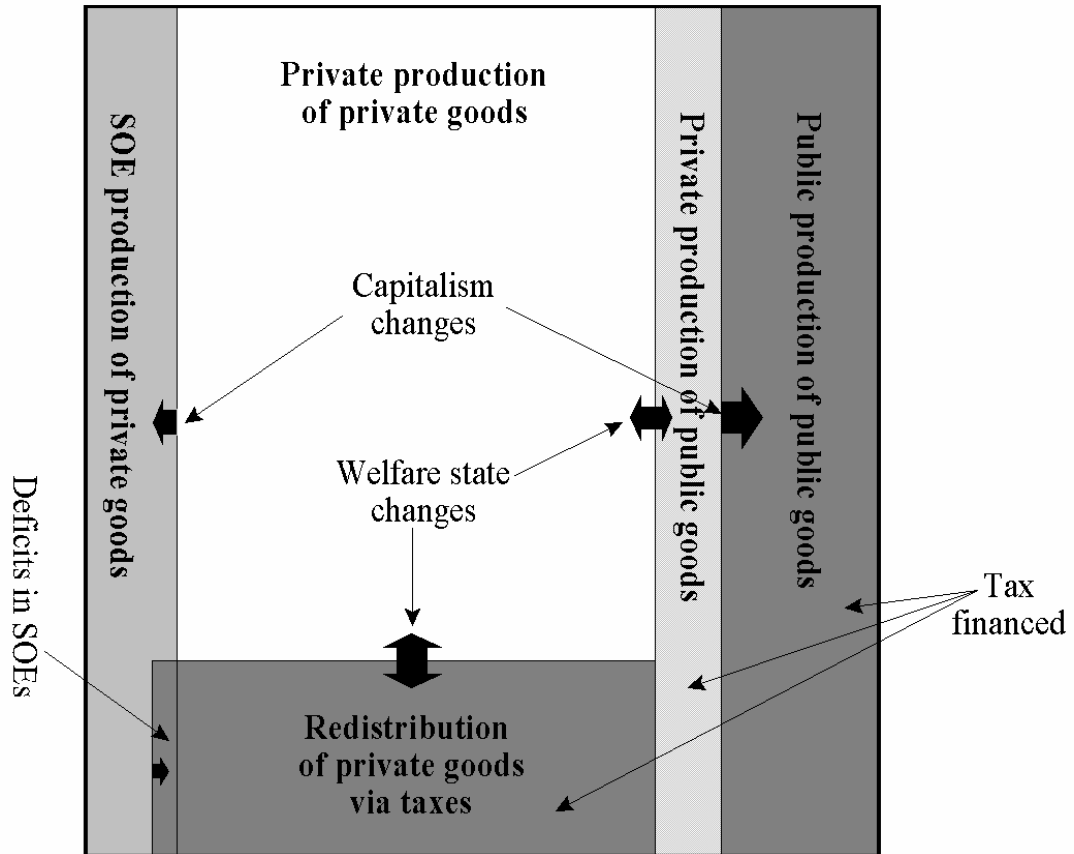
During the braking period most OECD countries went into heavy budget deficits – while the balance of payments improved, so the accumulation of debts was largely domestic. The domestic debt of the typical OECD country grew from 10% to 60% of GDP during the first decade after 1973. Section III will further examine the consequences of the big turn.

#### *II.4 Increasing capitalism: Is equilibrium in sight?*

In the last decade of the century the big compromise developed in two directions, as sketched in figure 2. The public sector grew (much) more slowly than before. At the same time the share of publicly owned means of production has shrunk in two ways: (a) SOEs (State Owned Enterprises) are privatized. (b) Increasingly, the production of public goods is outsourced – even when they are still supplied to people by public bodies at prices below market prices.<sup>18)</sup>

If these developments continue, private ownership of the means of production will continue to increase relatively, at the same time as the welfare sectors develop more slowly. Thus the welfare state becomes more and more capitalist. Hopefully an equilibrium can develop where capitalism controls the tendency for excessive growth of the welfare sector, and the welfare state controls the excesses of capitalism.

Figure 2. The big compromise and some new developments



### III. The slowness and high costs of adjustment after the Oil Crisis of 1973

The time series for the real growth rate in the old OECD countries have been endlessly analyzed by all the tools of econometrics, and dozens of articles have been published. My understanding of this literature is that as regards the time after 1945:

(a) The data for nearly all of the countries are close to white noise around long run steady state growth paths. (b) How quickly the real GDP returns to the path is debated, but only weak cyclical patterns have been found, and the series are virtually void of autocorrelation. (c) The only big change in the data for nearly all countries – except the USA – is the downwards shift of about 1½ percentage points in the growth rate after 1973.

The present section argues five points: (P1) There was some disequilibrium in the average OECD country in the spring of 1973. (P2) The external oil shock in 1973 was

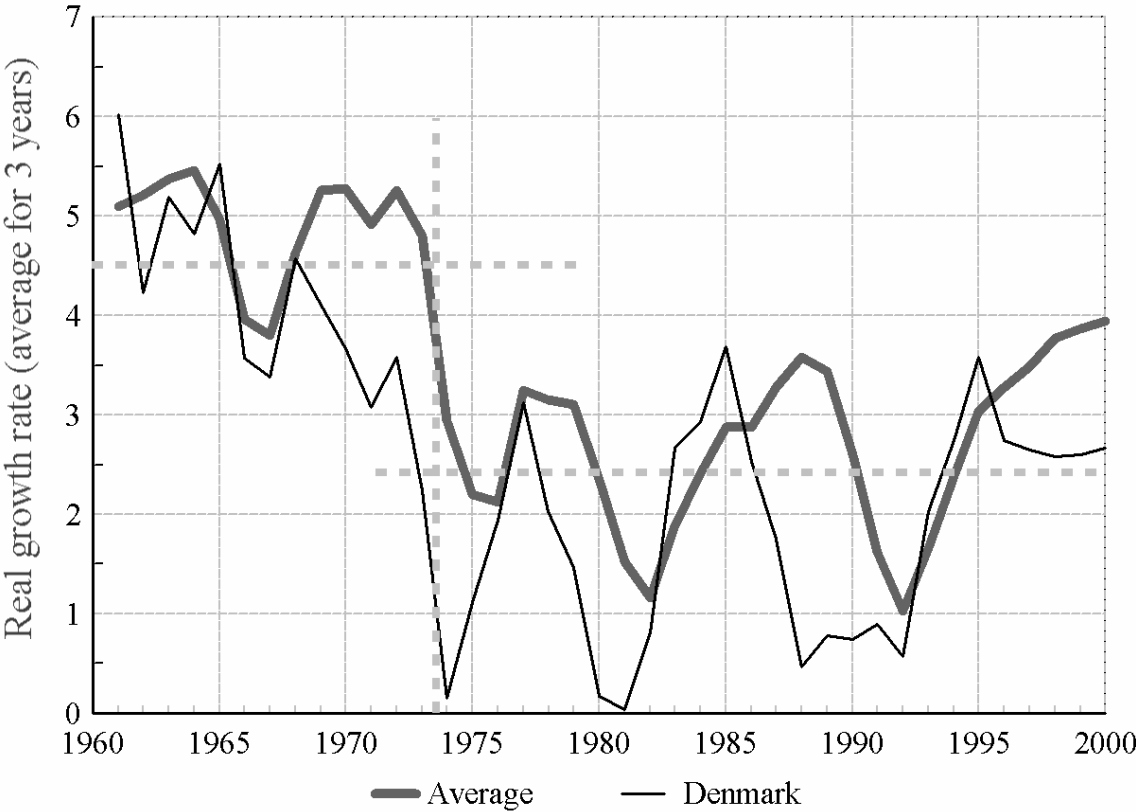
moderately large. (P3) The adjustments to the two problems took 15-20 years. (P4) The cure that finally worked was traditional, much like the standard IMF cure. (P5) The main reason it took so long for the medicine to work was that it was given in small doses.

The adjustments story unfolded in different ways in each country, and I know of no survey covering the slowness of adjustments in all countries. I will tell the story of Denmark, after having demonstrated that it is fairly typical.

*III.1 A typical case: Denmark*

Figure 3 compare Denmark with the average West European country. It appears that the Danish growth rate (for the real GDP) has been almost the same as the one of the average West European country. In the early 1960s, Denmark grew a little faster than most countries in Western Europe, and between 1969 until lately the growth has been slightly lower.

Figure 3. The growth of GDP in Western Europe and Denmark compared



The same applies to unemployment. It was relatively low till 1973 and then relatively high for a decade. Now it is – once again – relatively low. Denmark has been one of the richest OECD countries, but gradually the other countries have caught up. The reader may think that Denmark is atypical in the sense of being more regulated than the average West European country. Christoffersen and Paldam (2004) shows that it is not the case. In fact, Denmark is one of the 2-3 countries that are closest to the average. If one looks at the pattern of regulations, Denmark has a bit more welfare state programs than the average, but at the other hand a relatively small SOE-sector. Also, property rights and free trade are relatively well protected.

Hence, the Danish story is a typical one, though perhaps a little stronger than the average: (a) The boom in the 1960s was a little larger than average and (b) the crisis of 1973-85 was a little larger than average.

Another typical trait is that during the last years before the Oil Crisis Denmark enacted several new laws, which we can now see were remarkably utopian as they were strongly influenced by the post-materialist “anti-efficiency” ideology. The two main examples were the unemployment compensation law and the new social security law.

(i) Unemployment benefits were raised to 90% of prior wages for most wage earners. The idea was that the average wage earners should not suffer an income loss if he or she became unemployed.<sup>19)</sup>

(ii) A new social reform was enacted, where social payments were to be given according to *assessed needs*. The guiding idea was that social problems are an anomaly to be *treated* by a group of experts. People with a social problem should visit their “social treater”, who after a discussion of the *problem*, and a consultation with her colleagues, should prescribe an individual cure solving the problem. A wide selection of social payments, including a great deal of ad hoc grants, was available. This whole social treatment ideology demanded a social bureaucracy that was large compared with the number of clients.

### *III.2 The disequilibrium in the spring of 1973*

The Danish economy was overheated in the spring of 1973, and many signs pointed to a macroeconomic disequilibrium, even while the size of the disequilibrium was moderate. The numbers listed in table 6 illustrate these points.



Table 6. Measures of disequilibrium in the Spring of 1973 for Denmark

Disequilibrium in	Relative to the GDP
Balance-of-payments <sup>a)</sup>	2-3 %
Public budget deficit <sup>a)</sup>	1 %
Inflation	5 % too high
Unemployment <sup>a)</sup>	very small
Below natural rate <sup>b)</sup>	4 %
Internal debt	0 %
External debt	20 %

a. At same capacity utilization as trade partners.

b. Set at 6 %. Unemployment is relative to labor force.

During the Golden Period the public sector had a budget surplus most years, and the public debt consequently disappeared; however, the balance of payments had a small deficit. This had been a persistent problem for almost a century. Around 1960 a balance was reached, but then it was allowed to slide back into deficit, and the last 5 years before the crisis the balance of payments deteriorated. Nevertheless, the foreign debt had not reached serious proportions.

A small digression on an apparent inconsistency may be needed here: How could Denmark have an almost permanent (though small) balance of payments deficit for a century and have accumulated little external debt? The explanation is that Denmark had managed to borrow at a lower rate of interest than the GDP growth rate. The *Golden Age* result from the theory of economic growth is that consumption (welfare) is optimized in steady state, when the growth rate,  $g$ , and the rate of interest,  $r$ , become equal:  $g = r$ . However, for most of the period from 1870 to 1982, Denmark was in the situation where  $g > r$ . It is easy to show that this allows a permanent balance of payments deficit  $d = (X - M)/Y < g - r$ , where the debt burden accumulates slowly to  $d/(g - r)$ . As  $d$  was about 1% and the *deficit margin* ( $g - y$ ) was about 3%, no serious external debt burden emerged.

During the Golden Period of overheating, economists frequently warned that the balance of payments was a serious problem that would cause big trouble when an international crisis came. However, for a long time things went incredibly well, and the Danes

learned that economists were a group of people who “cried wolf” far too often. In retrospect all the warnings proved true.

The other problem was rising inflation, but everybody else in Europe suffered from the same malady, so the main problem was that the share of the public sector was still rising fast. If the numbers in table 6 are compared with the size of the disequilibrium in countries outside our group when they were hit by external shocks, this appears a puny disequilibrium.

### *III.3 Crisis: The external Oil Shock and the internal political shock*

Like all oil importers Denmark was hit by the Oil Shock in the fall of 1973 after the Yom Kippur war. In addition the country was hit by a domestic political shock within two months.

The Oil Shock was a terms-of-trade jump by about 5% – it soon started to decrease, and after 4-5 years it was almost gone. The balance of payments went from a deficit level of 2-3% to 5-6% for two years, and then it fell back to about 3%. The external debt burden rose to about 35%, but the world inflation wiped out old debt almost as fast as new debt accumulated. The first decade after the Oil Shock was a period of negative real interest rates. The debt burden did not start to increase rapidly until 1981, when the real rate of interest finally became large and positive. It was clearly a serious external shock, especially as it came on top of a small external disequilibrium. However, compared with the terms-of-trade variations of the average LDC, it is not impressive.

The political shock came at the election in 1973. It took place two months after the Oil Shock, but it was in the polls well before Yom Kippur, and had purely domestic roots: The main reason was that both *moderate government alternatives* had offended their voters. The Liberal-Conservative Alliance ruled 1968 -71 – precisely the period where taxes increased most. The Social Democratic Party took the country into the EU in 1972 against the wishes of most of its voters. Furthermore, the early 1970s was the period where the utopian left peaked, and at the other end of the political spectrum a large anti-tax party emerged. It was created after the sudden TV stardom in the spring of 1972 of the libertarian lawyer Glistrup, who emerged as a “mad genius”.<sup>20)</sup> All of this caused the hitherto extremely stable Danish five-party political system to break up, and the country suddenly had 12 parties of which 3-4 “anti-system parties” shared 25% of the vote. It is doubtful if anybody could have handled the economic crisis with such a parliament, but the Social Democratic Prime Minister at that time

did not even try. His policy was to let time pass while hoping something might turn up.

With little government intervention things rapidly deteriorated. The wage earners managed to get compensation for the external price rises, and the wage share rose by no less than 5 percentage points from a level which was already high in 1972. The net profit share became negative 1974-77.<sup>21)</sup> The next few years therefore saw a collapse in investments and domestic savings. After a couple of years unemployment started its climb to reach 12% in the late 1970s. Also public sector budgets went into deficits of 3-5% of GDP, and a domestic debt burden appeared. Due to the high domestic interest rates (see below), it accumulated rapidly.

#### *III.4 Drops of bitter medicine*

One of the most commonly expressed policy statements from all responsible politicians in Denmark and most other Western economies was that “unemployment should not be used as a policy tool”. The upward slide of unemployment was something that happened, and the politicians kept stressing that they were powerless to stop it. It was even stressed by many that the high oil prices had something to do with “the big underlying environmental crisis”. However, by 1980 unemployment had increased from less than 2% to 12%.

With the crisis the social policies came under considerable stress, and after a couple of years a gradual revision process started. In 1980 the average unemployment relief had fallen to 60% of prior wages, so *the relative fall was no less than 25%*. Also, the assessment principle in the social laws was quietly dropped for three reasons: (a) It became too expensive, (b) after unemployment increased 6 times the number of social clients became too big for the social bureaucracy to treat individually. (c) Many stories appeared in newspapers of clever social clients who managed to obtain handsome solutions to their problems, while less charming clients received a different treatment. So the assessment principles broke down, and the old principles of equal treatment and legal entitlements were gradually allowed to come back.

The rise in unemployment from 2% to 12% should have caused the share of transfer payments to increase by at least 5% of GDP if all rules and rates had remained unchanged relatively. However, the share of transfer payments stayed roughly the same. So the many small cuts did add up to a considerable aggregate cut.

The period 1976-82 (still under Social Democratic rule) saw a number of small

exchange rate adjustments adding up to a devaluation of about 10%. They were done almost “secretly” in connection with exchange rate adjustments of other currencies.<sup>22)</sup> While the voters took little notice, the capital market reacted strongly, and the Danish level of interests grew dramatically compared to international interest rates. The excess rate reached 6-7%. Even when the devaluations are included, the excess rate is still 5%. This caused the internal debt burden to rise and contributed to continued low investments.

In 1982 the Social Democrats lost power to a Conservative-Liberal coalition that ruled for the next decade. The new government froze the exchange rate and made a demonstrative commitment to a fixed rate. This quickly caused the interest rate to drop to the international level. Also, the new government outlawed price escalation clauses in wage agreements, and increased taxes and cut public spending, causing the first budget surplus for a decade.<sup>23)</sup>

After a decade of gradual reform, the economy slowly returned to its long-run growth path, as will be discussed in the next section. The key point to note is that the cure that *worked* was a combination of public sector cuts, devaluations and a prolonged period of high unemployment.

### *III.5 How long did it take for the cure to work?*

The start of the “crisis” is easy to locate, but telling when it ended is difficult, as the economy did not return to the *ex ante* situation.

The Danish balance of payments reached equilibrium in 1990, partly because of the adjustment and partly because of the North Sea oil that allowed the country to be self-sufficient in energy. After 1990 a balance of payments surplus emerged, and external debts started to fall. The debt burden peaked at 45% of GDP and reached the pre-crisis level of 25% in the mid 1990s. Consequently, the adjustment took 16 or 21 years if one looks at either the balance of payments or debts. Inflation reached 3% in 1990, but it was below 4% already in the mid 1980s – here the adjustment was complete already 12-16 years after the crisis started.

The public sector budget balance was very negative from 1974 to 1982, but then it rapidly improved and became positive in 1984. Since then it has been positive and negative on and off. Here the adjustment period was only 10 years. However, the internal debts that developed during the decade of the deficit have only dropped marginally, so in this light the adjustment has not been made even at the turn of the century.

The big problem to assess is when unemployment returned to equilibrium, as one has to assess the natural rate. Much literature deals with these matters as the natural rate of unemployment is a slippery concept depending on many structural and legal factors. When unemployment benefits are 80% of wages, the natural rate is higher than when the benefits are 60%. Also, *hysteresis effects* of middle term inertia enter into the adjustment processes. So these matters are difficult to fully understand.

In the Golden Period unemployment was too low, in the sense that inflation was slowly rising. With 12% unemployment, inflation was falling. Actually, inflation was falling faster at 12% unemployment than it rose at 2% unemployment, so one can argue that the natural rate is closer to 2% than to 12%. Further, the experience of the USA, which never had as extreme rates as 2% or 12%, suggests that an unemployment rate around 5-6% is the natural one. However, unemployment did not reach 6% until 1998. That is, no less than 25 years after the crisis started.

To sum up, a reasonable middle of the road assessment probably is that the adjustment of the economy to the disequilibrium and the shock in 1973 took at least 15 years.

### *III.6 The costs of the crisis and the costs of the slowness of adjustment*

The total costs of the crisis are easy to assess, though no calculation can attempt precision. Essentially, one has to measure in **cps** – that is, cumulative annual percentage points of growth or employment lost. The Danish growth rate ( $g_t$ ) from 1900 to 1973 was slightly above 3% in average, so the growth loss is:

$$(1) \quad \text{Growth loss:} \quad \sum_{t=1973}^{1990} (3.0 - g_t) = \text{ca } 45 \text{ cps.}$$

The employment loss can be similarly calculated given that the natural rate is 6% :

$$(2) \quad \text{Employment loss:} \quad \sum_{t=1973}^{1990} (6.0 - u_t) = \text{ca } 90 \text{ cps.}$$

The two calculations (1) and (2) do match reasonably well in the sense that the employment lost could have produced the product lost. It could probably have produced even more. That

would, of course, have demanded some extra investments, and then the whole picture would have been a little different.

Let us imagine that a determined and competent adjustment had been made starting in November 1973. How quickly could the crisis have been solved? This is, once more, a difficult question, but it could probably have been accomplished in 5 years. Surely it would have been a bit tougher during the first couple of years, but less so towards the end of the period. A 5-year adjustment period would have cut the two losses by something like 2/3.

The conclusion of the heroic “calculations” is that 15 cps of the growth loss and 30 cps of the employment loss were due to the crisis and the disequilibrium. The remaining 30 cps of growth and 60 cps of unemployment were due to the slowness of adjustment.

The same calculations can be made for all the economies of the old OECD countries. They will show much smaller figures for the USA, and they will be virtually impossible to make for Japan, where the Oil Crisis seems to have caused a permanent downwards shift from high growth to “normal” growth. For most of the other countries the calculations will be similar, though perhaps with somewhat smaller numbers reached in (1) and (2).

We have consequently told a story of a sizable, but by no means overwhelming, external shock, hitting the group of the most wealthy and “well ruled” countries in the world, in a situation where they were suffering from a small disequilibrium. The result was a moderate crisis made 2-3 times bigger by slow adjustments. The slowness was caused by a remarkable lack of will to act decisively.

### *III.7 Why was the West so slow to adjust?*

Standard assumptions in economics of rational and farsighted agents make it difficult to understand why adjustments took so long. One way to begin to understand is to consider two closely related *thought experiments*.

Imagine first somebody in 1972 had suggested that Denmark would spend the next 1½ decade fighting the balance of payments deficit and inflationary pressures with a policy of 10-12% unemployment, a 25% cut in the rate of unemployment compensation, and the scrapping of the new “social policy law”. Surely such a great prophet would have been deemed insane!

Imagine then that Denmark in the late fall of 1973 had asked the IMF to prescribe a cure for the crisis. The prescription would have been close to what Denmark actually did, but

IMF would have recommended that it was done decisively and quickly, not in small drops over more than a decade. If such recommendations had been followed, it would have solved the crisis much faster, but it would have created a big outcry and much political turmoil.

The message from the two experiments is that people and politicians had to be prepared – that is, everybody had to unlearn that they could walk on water. A clear sign that such “sobering processes” were involved is to consider the very different political reactions during the last big crisis and now. The crisis of the 1930s saw big shifts away from the previous political systems to anti-system parties in many countries, even in previously highly civilized ones.

The period since 1973 has seen little such political change. The anti-system left has decreased, the anti-system right is now for the system (though against immigrants and the EU). The support for the democratic centers has thus increased.<sup>24)</sup> People have been rather content with the way governments have handled the crises. The pressure from the 12% unemployed has been moderate.<sup>25)</sup>

Another explanation of the slowness is the *waiting-for-the-locomotive syndrome*. During the crisis, many economic summit meetings were held. They always proclaimed grand plans and visions, but nothing binding. The idea was often that the countries with the “best” balance of payments should expand, acting as locomotives. A locomotive country would clearly suffer a large balance of payments deterioration if everybody else did not follow quickly after. As everybody else would gain from being dragged by the locomotive, waiting for somebody else to be the locomotive was better. When, e.g., France tried to be the locomotive (when Mitterrand was elected) it quickly learned that it could not pull everybody along. For nobody to be the locomotive is thus the Nash equilibrium. All the summit meetings never really made everybody try for the cooperative solution of a joint expansion. The waiting-for-the-locomotive syndrome means that all governments could shift the blame to their foreign colleagues.

The slow adjustment was further caused by the fact that both politicians and people had to become ready to take the medicine. The way the big Danish Social reform of 1972 was abolished serves as a fine illustration. It was never abolished, but many seemingly small changes were made. They were often purely administrative, though tacitly approved by parliament. In the end the changes constitute a return to the old system – it took 10 years for it

to vanish. Many similar cases can be told.

The process people have to go through to accept changes is a learning process like the formation of adaptive expectations, and it is clearly a slow one.

#### **IV. The contradiction**

The core of the above analysis is a contradiction: (i) The great stability and crisis-absorbing capacity of the old OECD countries since 1950, and (ii) the slow and painful adjustment to the one and only large crisis starting in 1973. The Oil Crisis is almost as large as the Great Depression of the 1930 in several of the countries, when measured in annual percentage points of employment and growth lost.<sup>26)</sup> The Great Depression was approximately twice as deep (unemployment went to 20% instead of 10%), but the adjustment to the Oil Crisis lasted twice as long.<sup>27)</sup> In addition it was found that the adjustment to the Oil Crisis was almost void of innovative traits and decisive actions by farsighted agents.

Apart from the huge output of pious words and declarations from governments and international summit meetings, little was actually done. What finally worked was essentially the perfectly traditional IMF-type medicine. However, the medicine was taken slowly. It was argued above that the crisis could have been over much faster if quick and decisive action had been taken in the fall of 1973 and early 1974. Maybe it could have been “cured” in 3-5 years instead of 15-20 years.

It is a story of rich and successful countries that developed unrealistic expectations – in a broad sense – after many years where everything went too well. This caused a painfully slow return to realism. It is not like the story of rational adjustment of expectations we economists normally tell. Maybe the story can be seen as one where governments can act within certain limits given by past experience. When events occur that demand action outside these limits, action becomes impossible, and it takes a long time before the political system can adjust to allow such politically impossible actions to be taken.

The author believes that the key to the contradiction is to recognize two facts: (a) most people are quite ignorant about the economy, and (b) politics is a business with a very short time horizon. Both (a) and (b) occur for very good reasons. Ignorance is rational given the



marginal influence of the average man, and politics are so volatile that long time horizons make no sense.

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**Notes:**

1. Seen from afar New Zealand is a bit of an exception in the OECD area (more like Uruguay) of a country that followed a policy of “stop the world I want to get off”. It gradually opted out of the world market and created more SOEs (ie State Owned Enterprises). The SA of the Labor government, 1984-90 (of PM David Lange and MoF Roger Douglas), was a successful attempt to reverse this policy.
2. That is why high inflation is so harmful.
3. Consider the correlation  $\sigma(p_{i,t}, p_{j,t})$  between the rates of inflation in two countries (i and j) for any decade since 1950. If the countries are old OECD countries  $\sigma \approx 0.6$ . If the countries are African or Latin American, the correlation is much more unpredictable, but in average somewhere between 0.1 and 0.2.
4. IDB uses the numbers – including the more detailed calculations – to show a strong connection between stability (low variance) and growth. It is argued that stability causes growth through the investment channel. IDB goes on to argue that the Latin American countries should pursue policies reducing instability.
5. The various schools of ISI-strategies were termed *Cepalism or Structuralism* (in Latin America) and *African and Arab Socialism*. Also, the ideology of the Indian Congress Party belonged to this line of thoughts.
6. The external balance is measured as (a) the autonomous posts on the balance of payments, (b) the exchange reserves or (c) the movements of the exchange rate. Which measure is most relevant depends on the institutional set up and circumstances.
7. The author has spent some time polling the knowledge of inflation and their inflationary expectations in Denmark, see Paldam & Nannestad (2000), and has consequently some basis for claiming that most people do not form such expectations.
8. The empirical findings are both on the demand and supply side. The demand side is treated in the literature on Vote and Popularity functions see e.g. Nannestad & Paldam (1994) and Lewis-Beck & Paldam (2000). The supply side is treated in the political business cycle literature, see Paldam (1997) and Alesina, Roubini & Cohn (1997). There is a close parallel to the argument of Hirschman (1961) concerning airlines.
9. The three other Nordic crowns (that has exchanged at 1:1:1  $\pm$  10% from 1948 to 2000) have been among the most stable in the OECD area. The Icelandic Crown started from a rate of about 1.2:1 to the other crowns in 1948, and it has now devalued to the rate of to 10:1.
10. This is evidence that the economies of the West are normally demand constrained, not supply constrained.
11. The Oriental crisis hit Indonesia, South Korea, Thailand, Malaysia and their neighbors. It was a deep and sharp crisis, but it lasted 5-6 quarters only.

12. See Lybeck & Henrekson (1988) and Gemmell (1993) for surveys of theories and data.
13. These taxes could not be collected in the old society, and today in the LDCs, where typical trade taxes are concentrated on the foreign trade. Even at revenues of 15% of GDP they give large costs of distortion.
14. Catch up effects can be very powerful when the technological gap is bridgeable, as was the case.
15. Inglehart (1997; p 318) presents data from the World Value Surveys demonstrating an amazingly low support for public ownership. In all countries covered (except Iceland) the support for public ownership to trade and industry is only about 5% and falling.
16. The vast increase in the freedom of trade has been within Western Europe, turning the world into trading blocks. However, seen from the typical West European country it has appeared as a dramatic increase in the freedom of trade.
17. During the 20<sup>th</sup> Century the public sector share (of production) has typically increased from 6% to 26%, while the export (or import) share has increased from 25% to 30%. The public sector hardly trade internationally. This has increased the trade share of the private sector from  $25/(1-0.06)\% = 27\%$  to  $30/(1-0.26)\% = 4\%$ . That is the international integration of the private sector has increased by 50%.
18. This trend is discussed and documented in Parker and Saal (2003) and Sinn and Whalley (2004).
19. The rates took into account that people saved on transport and other work related expenditures when they became unemployed. The law made some reductions in the 90% compensation rate for high income earners. It meant that the average degree of compensation was only about 82% just before the crisis.
20. After many changes the anti-tax party is now replaced by a traditional populist party, that is for the welfare state, blaming all problems on immigrants and the EU.
21. If wages and imputed interests on capital are deducted from net national income the rest is negative.
22. While people did not take much notice the capital market did. Expectations are formed differently by people with only a marginal interest in the matter and professional dealers.
23. The tightening also brought about a brief boom, contrary to the Keynesian creed of the Danish economic profession. At that time there was known to be *one* confessing monetarist in the profession. If anybody mentioned the term “rational expectations” it was compulsory to smile derisively. After 1985 this changed rapidly. Today the profession is close to the international mainstream.
24. In Denmark the big political shock of 1973 (discussed) was due to increasing “expectations “ during the Golden Period, and the crisis gradually caused the political center to recover its support among the voters.
25. Polls show that an unemployment rate of 10-12% means that 90% of the population know somebody,

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who is unemployed (see Table 4 in Paldam & Nannestad, 2000).

26. The reason the Oil Crisis is normally treated as smaller than the Big Crisis is that the USA was hit much less than Western Europe by the Oil Crisis.

27. This assumes that the Great Depression ended in 1939/40, when another more serious crisis of a different nature came to dominate.