Industrial Policy — A Sceptical View

By Niklaus Blattner*

A general agreement appears to emerge that more selective policies are needed. The supporting arguments and some empirical evidence for Switzerland are inspected. The attractivity of alternative strategies is discussed.

1. Introduction

We are presently observing a general disenchantment with the Western democracies' ability to run satisfactory short-term and global policies of demand management. We are living under the impression of having suffered the most severe economic breakdown since the thirties despite the fact that our governments have been applying fairly sophisticated Keynesian policy tools. It is, therefore, not surprising that fundamental policy changes are requested. Many of the proposals ask for more selective policies[1]. All of them stress the importance of a shift of emphasis from the short- to the medium- and long-term-programs[2].

It is not only recently that supply oriented "structural" policies are being asked for. But the pressure for the establishment and the implementation of more "structural" policies has certainly become more vigorous these years. As the main economic problems of our time are said to be "structural" in nature, the conclusion that more "structural" policies are needed follows somewhat logically.

One of the most important "structural" policies is industrial policy which we define for our present purpose as that set of measures by which a government in a generally market oriented economy makes the attempt to improve a particular industry's innovative and/or adaptive behaviour, i. e. its competitiveness by intervening directly in that industry's resource allocating process. As direct interventions of a government we are considering those which provide special conditions for an industry or for particular firms in that industry with respect

* University of Basel and Federal Office for Industry and Labour, Bundesgasse 8, CH-3003 Bern. — Revised paper presented at the Fourth European Conference on Industrial Structure, Newcastle upon Tyne. — The views expressed are my own and do not imply the above mentioned institutions.

[1] This is true for the so-called McCracken-Report (OECD 1977).

[2] For a prominent example for a statement in favour of non-selective longer-term economic policies see SEEPC (1977).

to legal treatment and/or economic rewards like subsidies, tax-exemption, tariff protection an the like.

We admit that this definition is narrow insofar as it only stresses the efficiency goal of industrial policy. Industrial policy may be and often is indeed used to reduce the socially harmful effects of economic change[3]. We shall try to incorporate these aspects at the end of our investigation. We do not at all negate their importance. However, we think that it may be useful first to study the problems of industrial policy from an efficiency point of view, knowing that it is generally difficult to devise consistent policies with the purpose to attain more than one goal at a time[4].

When designing industrial policy measures it appears to be a precondition to know what determines an industry's ability to innovate and/or to adapt itself to the changing requirements of the market. As soon as a comparison of the theoretical determinants of an industry's competitiveness and that industry's reality shows divergences there is room for an analysis of the possibilities of industrial policy. Where are the price system reaction chains impaired or broken and where could, therefore, the industry's performance be possibly improved by direct governmental intervention?

The outcome of such a comprehensive rational process of policy selection need not consist in an industrial policy program. It may well be that a close inspection shows that improvement of an industry's competitiveness might also follow from measures strengthening the functioning of the market mechanism. For this is the alternative government reaction in the light of insufficient industrial performance. As we all know the ability of government in efficiently allocating resources is not unrestricted. This is not necessarily only the consequence of the fact that a government is a political institution and, therefore, is subject to all sorts of political pressures. A very important reason for a sceptical attitude towards the government's ability in allocating industrial resources is connected with the increase in the degree of centralisation in the resource allocating process implied in industrial policy programs. If the problem of an optimum degree of centralisation would not exist, much of the economic content of the discussion about alternative politico-economic systems would be non-existent[5].

---

[3] This is shown in a recent article by *Hodgson* (1977). A general enumeration of the possible goals is given by *Siebert* (1977), pp. 241 - 2.

[4] The difficulties related with such attempts are treated by *Tinbergen* (1967).

[5] For treatments of alternative politico-economic systems, see *Dahl* and *Lindblom* (1963) and more recent *Bernholz* (1972 and 1975). For outstanding empirical information, see *Pryor* (1973).

This rather extended introduction was perhaps necessary in order to make the approach chosen in this paper fully understandable. It is our intention to contribute to a framework for a rational process in selecting programs of industrial policy.

In accordance with our sketchy outline of such a process we are first treating the determinants of an industry's ability to innovate and/or to adapt itself to the changing requirements of the market. This we do along the lines of traditional economic theory. Secondly, we investigate the case of the Swiss watch-making industry. This industry has been experiencing a drastic decline in international competitiveness during recent years. We try to explain this in the light of the determinants developed before. Finally, we attempt to evaluate the policy alternatives in this special case.

We are fully aware of the fact that case studies do not prove much. So, we are reluctant to generalise our findings. We only want to demonstrate the merits of a detailed and open-minded analysis of every single case before industrial policy programs are going to be implemented. Measures of industrial policy are usually exerting considerable effects on the nature of economic activity and are not so easily revoked. A cautious anterior evaluation is especially desirable, therefore.

2. Structural Change and Price System Reaction Chains

2.1 The Alleged Functioning of the Price System

The long-term structure of output and, therefore, structural change is determined by several important factors. *Abramovitz*[6] mentions five groups of them:

— the supply of labour and capital as well as of natural resources;
— the psychological characteristics of the population;
— the type of organisation at the level of the individual firms and of goods and factor markets;
— the legal and political environment of the economic agents;

and, finally,

— the extent and the nature of technical progress.

But how does the price system accomplish structural change? *Giersch*[7] gives an example:

"Price mechanism is signalling bottlenecks. If there is a shortage in any type of resource — e. g. silver — its price is going to rise already

[6] *Abramovitz* (1952).
[7] *Giersch* (1975), pp. 119 - 20; translation by the present author.

very early. Thus, it becomes economically rewarding to eliminate the shortage by searching for new supplies, by using substitutes, by reducing the production of those goods necessarily requiring silver as input, and by inventing goods and processes being equally useful but not requiring silver."

And *Giersch* is continuing immediately:

"Of course, it is not alone the price mechanism that accomplishes this. Rather, the initiative economic agents are mobilised by the price signal. And in a free society there are usually many forces competing with each other and working out solutions."

The initiative economic agents — the entrepreneurs — are the *deus ex machina,* and substitution is their universal remedy for structural problems. — Obviously, *Giersch*'s optimism diverges somewhat from reality.

We do not hesitate to call Switzerland a "free society". And we cannot deny that the Swiss economy is subject to the workings of the price mechanism. Yet we note that we experienced considerable economic shocks recently. Since 1972 one third of all those employed in building and construction were put out of work. In 1950 more than 50 % of all watches sold on world markets were produced in Switzerland. In 1974 the Swiss market share was still at 43 %. In 1976 it finally dropped to 30 %[8]. Nobody in our country did expect that much and that sudden economic change. And everybody is now seeming to agree that the change is "structural" in nature, i. e. not easily, if at all, to be reverted.

This evidence — and more can be found in Swizerland as well as elsewhere — does not lead to a refutation but to a qualification of *Giersch*'s statements.

First of all, the observation of sudden and unexpected structural breakdowns does not falsify the proposition on the effectiveness of the price system as a mechanism transmitting basic changes to the economy. On the contrary, sudden break-throughs of economic forces illustrate their power. Inefficient structures must yield to fundamental market forces at last.

Secondly, it is clear that although the price mechanism works, it does not always do so smoothly and without shocks and surprises, as is implied in *Giersch*'s ideal view.

From this we learn that we have to address ourselves to the following problem: Why is the price mechanism at times prevented from correctly signalling scarcity and potential economic rewards? Furthermore, we

[8] *Neue Zürcher Zeitung* (1976 a), p. 17.

have to ask separately, why — even with correct signalling — the economic agent sometimes fail to be mobilised, i. e. lack initiative.

2.2 Failures in Signalling and Failures in Reacting

We are able to distinguish two groups of reasons for unexpected, sudden and, hence, economically and socially especially harmful structural change in a market oriented economy. The first group contains reasons for the failure of the price system to emit correct signals on changing economic scarcity in the long-run. The second group consists of reasons inducing individual economic agents not to react according to the signals perceivable.

2.2.1. Failures in Signalling

In our context, failures in signalling are those connected with inflation, with exchange rate policy and with externalities in costs and benefits as well as in risk. Failures resulting from uncertainty have to be excluded, here. The price system cannot be blamed for not indicating in time changing scarcity brought about by the unforeseeable. Even the best functioning price system cannot prevent the economy to be unexpectedly shocked by events like earth-quakes etc.

By not restraining inflation, by leading a policy of rigidly fixed exchange rates and by tolerating institutional arrangements implying externalities in costs, benefits and risk, government is influencing the price system's ability to function properly. The factors mentioned may lead to a distortion of the signals emitted by the price system, this induces erroneous allocation of resources, which finally provokes sudden correction, i. e. structural breakdowns.

The higher and the more uncertain the actual and the expected rate of inflation is, the greater are the individual economic agent's difficulties in judging to what extent a variation of a single price is a real instead of a merely nominal phenomenon. This induces errors in anticipation: Marginal producers have their lives prolonged[9]. Industries producing goods especially suited to be used as assets providing security against the melting-down of real values as a consequence of inflation experience phases of prosperity coming to a rapid end as soon as inflationary expectations are broken[10].

The international monetary system of Bretton Woods was handled much too rigidly. Governments did not sufficiently exploit its nature as

[9] *Werner* (1975), p. 150.
[10] *Bombach* (1976), p. 18.

an adjustable-peg-system. In December 1971 we observed the first important realignment of parities. Since then they have continued to move.

In other words: the rigid handling of the system of Bretton Woods provided economic agents with false security. Since its collapse, exporters and importers have been facing a new reality. The economic quality of their geographical locations has rudely been exposed. At the same time it has become very difficult, if not impossible, to interpret parity changes insofar as they are reflecting not only economic but also political developments.

Very recently, *Riese* (1978) has questioned seriously the validity of the argument that the lack of flexibility in exchange rates is detrimental to economic efficiency. He holds that the lasting undervaluation of its currency is one of the most significant factors explaining the rapid economic growth of the Federal Republic of Germany during the postwar years. By keeping to the undervalued Deutschmark export growth has constantly been subsidized. This has led to some loss in static efficiency but — according to *Riese* — this loss has been effectively compensated by gains in dynamic efficiency. *Riese's* Listian argument is certainly valuable when trying to understand past developments. We wonder, however, whether there can be a justification for this type of mercantilistic strategy in the long run. The costs in terms of static inefficiency can be considerable, and there is no security against sudden changes in the opposite direction, e. g. into overvaluation. This is the experience Switzerland has recently made. Such sudden changes are likely to be liable to lead to important structural problems, the disadvantages of which must not be overlooked.

Externalities in costs and benefits have long been recognized as a major cause for market failure. The same applies to externalities in risk. A considerable proportion of economic goods (and "bads") are public goods (and "bads"). This has technical as well as political reasons. Deliberate institutional arrangements may increase the share of public goods (or decrease the share of public "bads") and thus deeply affect the functioning of the price system[11]. Industries generating external costs and/or external risk are subject to the danger of a stepwise build-up of political pressure which may ultimately lead to the introduction of legal and/or economic restrictions in a way and to an extent very difficult to predict[12]. If this happens, this may be another reason for structural breakdowns.

---

[11] *Samuelson* (1954), *Kapp* (1958) and, *r*ecently, *Bonus* (1977).
[12] Think of the current debate on atomic power plants.

Technical and institutional factors leading to the generation of external benefits are not so much a danger for the survival of industries as a reason for a loss in potential social welfare. External benefits distort the functioning of the price system and may require governmental correction[13]. But the distortions are generally not such that sudden structural breakdowns have to be feared.

2.2.2. Failures in Reacting

Even if the factors discussed above and leading to failures in signalling scarcity were absent, there are still other reasons possibly causing bad functioning of the price system. If competition on goods and factor markets is weak, economic agents may be inclined not to react to the signals emitted. This passive attitude may be viable some time, but most propably not always. If economic agents stay passive, basic trends will force out their way themselves sooner or later: structural breakdowns will follow.

Long-term survival requires permanent monitoring of the own and the neighbouring segments of activity by producers. The sortiment of goods produced, the techniques applied and the locations of manufacturing chosen need to be reexamined regularly.

Despite of intensive research in the area of competition theory not much can yet be taken for granted regarding the exact conditions stimulating this type of dynamic behaviour. Comparatively simple-minded attempts to apply the famous "structure-behaviour-performance" link may be of some didactical value but are usually suffering from considerable lack in generality and operationality. *Kantzenbach*'s concept of an optimum degree of competition is very well illustrating this[14].

In conditions of optimum intensity of competition — the precise specification of which is unluckily not easily to be given — the individual firms' innovative and/or adaptive behaviour is satisfactory. The firms are permanently revising their strategies according to the latest information on the development of demand and technology and the competitors' behaviour. All the firms are moving and being moved simultaneously. The likeliness of them being surprised by sudden changes in economic conditions is comparatively minor. Structural breakdowns are rare.

---

[13] *Arrow* (1962).

[14] *Kantzenbach* (1976 a) as well as *Hoppmann* (1966) and *Kaufer* (1966). The discussion went on in *Kantzenbach* (1967 b), *Hoppmann* (1967) and *Kaufer* (1967). — For a survey of more recent theoretical as well as empirical research, see *Kamien* and *Schwartz* (1975).

Apart from competition on goods markets there is competition on factor markets. Relevant is the fact that competition on the capital market, i. e. the market for financial resources, can effectively supplement competition on goods markets in capitalist economies[15]. In the long-run only those firms will be able to finance their expansion and, therefore, to survive in a growing economy, which provide lenders and/or shareholders with satisfactory, i. e. at least average rates of return. In this sense there is control on the capital market which favours efficient firm behaviour. The more there is the possibility of finance through retained earnings, the fewer freely tradeable shares exist, the less intensive capital market efficiency control will be. Takeovers by more efficient competitors — one of the ultimate sanctions — are not very likely given such conditions[16].

2.3 Reasons for Broken Price System Reaction Chains in Summary

Before turning to our case study we want to summarise the factors which may lead to broken, or at least to impaired price system reaction chains.

Inflation, rigid exchange rates and externalities in costs, benefits and risk are distorting the price system's signalling of scarcity and potential rewards such that there is the danger of eventual sudden economic correction. The same danger follows from non-optimum intensity of competition in industry and from too weak efficiency control on the capital market.

When trying to explain the economic difficulties in Swiss watchmaking industry we shall try tentatively to assess the explanatory power of these factors. To what extent can they account for the industry's insufficient performance? In what respect do the price system reaction chains in that industry need to be repaired? Or is there a justification for direct governmental intervention in the sense of an industrial policy program because of heavy doubts regarding the possibilities of improving the functioning of the market mechanism? — But let us first turn to the description of our case.

---

15 *Williamson* (1969).

16 For a general treatment of the relationship between firm behaviour and the capital market, see *Blattner* (1977 a), pp. 67 - 117.

3. The Case of the Swiss Watch-making Industry[17]

3.1 The Position of the Industry in the Economy and the Structure of the Industry

It is well known that watch-making is quite an important branch of industrial activity in Switzerland. This manifests itself foremost when we look at the export figures.

Switzerland has an economy that is extremely export oriented. The proportion of exports of goods and services to Gross National Product amounts to 30 %. Of these exports a considerable proportion consist of watches. The watch-making industry's share is declining but it still was 6,2 % in 1975.

It can be estimated that the watch-making industry is contributing about 2 % to the Swiss GNP. Of this production between 95 - 97 % goes into exports.

Currently still 55 000 people find employment in watch-making. This is about 6 % of the employment in the secondary sector or 2 % of the employment total (Figures for 3rd quarter 1976)[18].

Regional concentration of watch-making is remarkable. We find important watch-making activity all along the Jura mountain chain from Geneva almost up to Basel and hardly any watch-making — apart from the Canton of Schaffhausen — in the remaining parts of Switzerland.

Swiss watch-making regions can be considered as monostructured regions. This can be illustrated by giving some figures[19].

In 1970, 2,9 % of all persons employed worked in the watch-making industry. In the same year, the proportions in the watch-making regions were:

Canton of Neuchâtel	24,4 %
Canton of Solothurn	12,4 %
Canton of Bern	7,4 %
Canton of Basel-Land	2,7 %
Canton of Geneva	2,4 %
Canton of Vaud	2,3 %

Conditions of monostructure are above all to be found in Neuchâtel, Solothurn and Bern. The Bern figure is not very telling because Bern is a large canton and watch-making is really located only in its Jura part.

---

[17] Parts of this section are taken from *Blattner* (1977 b).
[18] Our own estimates.
[19] *Arbeitsgruppe Regionale Einbrüche — Uhrenindustrie* (1976), p. 4.

Finally, it has to be noted that the employment ratios given include nothing but watch-making proper. This means that all the other economic activities from watch-making machine-tool production to engineering and construction linked with the watch-making industry are not taken into account. It is not yet possible to establish these input-output relationships between watch-making and the other industries in the regions. But it is clear that quite a sizeable part of the people employed in the watch-making regions have jobs that are directly depending on that industry.

There are still some 1200 different firms in the watch-making industry today. The size distribution of these firms shows that concentration is very low but rising over time. In 1965 only 6 % of all firms employed 100 and more people. In 1974 the figure was 13 %. In 1965 55 % of those employed worked in firms with 100 and more people. In 1974 the proportion was 60 %. That concentration has been taking place is especially visible at the lower end of the scale. In 1965 60 % of all firms worked with 1 - 9 people. Up to 1974 the proportion of these dwarf firms fell to 11 %[20].

There are only few big and integrated firms in the industry. The dominating trait of the industry is its horizontal organisation. About half of the firms are specialised in the production of some components of the works or in other particular segments of the production process. Almost as many different firms are specialised in assembling the components and in mounting the finished product (*Hill* 1977, p. 57).

The firms producing the finished watches are currently offering their products under around 10 000 trade and manufactory names and in over 100 000 different styles and types (*Hill* 1977, p. 101).

There are quite a few common institutions in the industry. Their task consists either in the promotion of the interests of the watch-making industry at the level of economic policy and of the labour market. Or they were founded in order to stimulate research and development, to provide and operate quality norms and to organise programs for professional and managerial eduction (*Neue Zürcher Zeitung* 1977 a).

3.2 The International Competitiveness — Past and Present[21]

World consumption of watches nearly doubled between 1965 and 1973. The compound rate of growth was 8,4 % over the entire period. In 1965 113 millions of watches were sold. In 1973, total sales amounted to 214 million pieces.

[20] *Hill* (1977), pp. 66 - 7.
[21] *Hill* (1977), pp. 35 - 47.

In 1975 — a year of substantial world-wide recession — the sales figure is estimated as 220 millions of watches. This means that general recession has not afflicted watch-making as much as it has other branches of economic activity.

Swiss watch-making used to enjoy a reputation as the industry's leader. This was certainly not without reason in the past. In 1950 more than 50 % of all the watches sold were made in Switzerland. Since then — we mentioned it before — the market share has been declining.

As Swiss exports still used to rise from year to year up to 1974 the decline was not felt so much. It was only a relative one. Absolute decline developed only in 1975. Swiss watch exports went down by more that 20 %.

At the same time world production remained more or less where it was in 1974. Competitors like the French, the Russians and the Japanese were improving their market shares to the detriment of the Swiss.

For 1976 the figures show a further drop of 6 % in units exported by Switzerland.

3.3 Factors Explaining the Decline

When trying to explain the decline in the Swiss watch-making industry's international competitiveness, the most salient single reason appears to be the drastic revaluation of the Swiss franc. The Swiss franc experienced an export weighted revaluation of more than 60 % between December 1971 and December 1976. This average contains the following substantial individual revaluations: over 50 % against the US-$ and the Yen, over 20 % against the Deutschmark and about 100 % against the Bristish-£.

It is clear that additional factors like the relative rates of inflation and productivity growth have to be taken into account, too. But it is not to deny that Swiss export industry has had to absorb a fundamental shock resulting from the introduction of exchange rate flexibility after a long period of fairly rigid international currency policy. The comparatively low rate of exchange of the Swiss franc made possible an industrial structure which was suddenly put into question by heavy and — to that extent — unexpected revaluation. This applies to the whole of Swiss industry and not only to watch-making. The experience can be considered as a confirmation of the proposition discussed above: By leading a policy of rigidly fixed exchange rates, governments are able to impair price system reaction chains for fairly long periods. This implies shockwise breakthrough of economic forces and thereby provokes structural breakdowns.

In comparison with the difficulties created by the rigid handling of the international monetary system the other causes for the price system's failures in signalling scarcity appear to be of much less importance in the case of watch-making. Shocks as a consequence of broken inflationary expectations are much more relevant in explaining the heavy difficulties Swiss building and construction industry has been facing. Shocks following the sudden introduction of measures leading to internalisation of externalities in costs and risk are so far not to be regarded as prominent in the explanation of the difficulties of any of the Swiss industries — apart, perhaps, from atomic energy production.

More relevant for the explanation of the structural difficulties in Swiss watch-making are weaknesses in relation to competition implying failures in reacting. We spoke of the requirement of an optimum degree of competition and we, furthermore, mentioned the supplementary efficiency control on the capital market. If we look at the conditions in the watch-making industry as they developed during the last fifty years or so, we are left with the impression that it is in terms of competition that this industry has deviated most from the requirements for long-term viability in a market oriented environment. And it did so with the massive help by government.

Swiss watch-making industry displays an impressive variety of producers in a system organised horizontally. We mentioned this already before: 600 firms are selling watches in over 100 000 different styles and types under 10 000 different trade and manufactory names. This structure is in striking contrast to the structure of watch-making industry in the USA and in Japan. There, a few big and integrated firms dominate. Years ago, a Swiss national invented the first electronic watch. Swiss producers did not take up the idea. It was a U.S.-firm who carried out the innovation and marketed the product under the name of Bulova-Accutron successfully for years. Electronic watch-making was considered as a typical American gadget in Swiss industrial circles. Today, Swiss industry is trying hard to regain lost ground[22]. This incident might well illustrate the effects of suboptimum intensity of competition.

Government is at least partly responsible for the Swiss watch-making industry's lack of innovatory efforts and its resistance to more effective adaptation in its structure.

The first intervention dates back to the beginning twenties of our century[23]. The federal government paid subsidies to firms suffering

[22] *Neue Zürcher Zeitung* (1976 b).

[23] For the early history of governmental intervention in watch-making, see *Preisbildungskommission* (1959), pp. 47 - 55.

losses because of foreign currency devaluations reducing the returns from exports. This aid was stopped in 1923. The worldwide economic breakdown in 1929 also did very much affect Swiss watch-making. There was excess capacity leading to cut-throat competition. The quality of the product suffered. Exporting parts instead of the finished product — called "chablonnage" — led to losses in employment and stimulated foreign competition. In 1931, government supplied financial resources in order to facilitate the foundation of a holding company (ASUAG) with the purpose to establish control over the production of works and to eliminate chablonnage. This firm still exists, today. But the strategy did not prove watertight. In 1934, government introduced a number of considerable restrictions: For the establishment of new plants, the expansion and the technical reorganisation of existing plants as well as for changes in locations, the consent of federal administration had to be obtained. At the same time, the requirement of export licences was introduced for chablonnage. The need for export licences was extended to cover finished watches in 1936. In 1939, the governmental protection was enlarged further. Price lists for Roskopf-watches were sanctioned officially. In 1937 and 1940, some but not all of the restrictions on plant expansion were dropped.

After the war, the so-called "Uhrenstatut" was introduced (1951). This statute replaced the earlier regulations. It restricted chablonnage, the export of watch-making machinetools and of know-how (blueprints). Furthermore, the founding of new firms and the expansion of existing plants were still kept under administrative control.

In 1960, the "Uhrenstatut" was revised. The licencing requirement for chablonnage was maintained, but the control over manufacturing expansion was droppend. A new element was the introduction of quality control. The qualification "Swiss made" obtained official status[24].

In 1970, the "Uhrenstatut" was finally suspended. A new bill, which is still valid today, was introduced. The only element remaining from the days of the statute is official quality control[25]. Thus, a long history of governmental intervention came to a late end.

Before ending this section we have to mention that Swiss watch-making industry has always been living with extensive private cartelisation, generously tolerated and — as we have seen — even sta-

[24] Botschaft des Bundesrates an die Bundesversammlung über die schweizerische Uhrenindustrie (1960).

[25] Botschaft des Bundesrates an die Bundesversammlung über die offizielle Qualitätskontrolle in der schweizerischen Uhrenindustrie und die Ergänzung des Markenschutzgesetzes (1970).

bilized by official policy[26]. In addition, many of the firms in the industry have for ever been in the hands of individual families. This has led to only very little efficiency control on the capital market. All these different factors — together with the many instances of direct governmental interventions described above — have led to an economic climate which did not especially favour entrepreneurial initiative. In the light of this, failures in reacting seem all too well understandable in the case of this industry.

3.4 The Case of Watch-making in Perspective

Criticism with respect to the way Swiss federal government influenced economic conditions in watch-making is not new. And the fact that the "Uhrenstatut" was successively abolished shows that government has grown less and less satisfied with its own industrial policy over time.

But on the whole and up to very recently there were always respectable voices declaring that the statute was not so damaging; some even said that its benefits were greater than its costs (*Schulz* 1973, p. 108).

Since 1975 the general opinion in economic policy circles has taken a definite turn to the negative. A "new edition" of the "Uhrenstatut" has to be considered as being out of question, despite the expectation of heavy further losses in employment over the next ten years (*Neue Zürcher Zeitung* 1976 a).

The main efforts in terms of policies undertaken at the moment are those related to the promotion of industrial innovation and diversification in the traditional regions of watch-making. There are presently discussions of schemes allowing the subsidising of the finance required to carry out projects of innovation and diversification in regions with above average unemployment. This includes the traditional watch-making regions, but not necessarily only them. There is no restriction regarding the industries eligible for support (*Neue Zürcher Zeitung* 1977 b).

Today, and with the benefit of hindsight, there is reason to think that the general prosperity and inflation in the decades since World War II covered up the negative effects of restricted competition very effectively — until the strategy of rigid exchange rates was suddenly crumbling and worldwide recession developed simultaneously. With recession, suppressed economic forces manifested themselves: the structural breakdown in watch-making was perfect.

---

[26] For a general and very detailed description of cartelisation, see *Preisbildungskommission* (1959), pp. 13 - 45.

4. Policy Alternatives

We wrote — perhaps not modestly enough — that our present aim is to contribute to a rational process of policy selection in respect to medium- and long-term development of industrial structures. The time has now come to draw the conclusions.

We start by stating — and partly repeating — the following points:

— Well functioning price system reaction chains are the necessary requirement for tolerably smooth structural change in a market oriented economy.

— Institutional arrangements as well as technical conditions may imply failures in signalling and failures in reacting. Both types of failures provoke developments likely to lead to ultimate structural breakdowns with disruptive consequences on the economic and on the social and political plane.

— When structural breakdowns are feared or have actually occurred, there are basically two types of policy reaction. Government can introduce an industrial policy program. This means that government substitutes direct intervention for heavily impaired or broken price system reaction chains. Alternatively, government can try to repair the suffering price system reaction chains and improve in this way the economic agents' ability to innovate and/or to adapt to changing basic trends.

— Direct interventions by government are difficult to design effectively. By providing special legal and economic conditions to particular industries, government is interfering with complex processes of resource allocation.

— The short-term results of industrial policy programs may differ considerably from their effects in the longer run. The case of the Swiss watch-making industry can be regarded as confirming this proposition. Heavy government intervention over a period of fifty years at times fulfilled the advocates' hopes, only to end in spectacular breakdown as soon as world wide recession and drastic revaluation of the Swiss franc occurred simultaneously. In the year before 1975, the industry's basic weaknesses were effectively covered up by rapid general economic growth and considerable world-wide inflation.

— Selective government measures tend to be supplemented by further interventions as time goes on and as the limited effectiveness of the initial program is perceived. This is a general characteristic of selective measures and does not only apply to industrial policy (see e. g. agricultural policy).

— Selective government interventions may have long lives. This may be explained by a number of factors. First of all, it will take some time until the effects of a policy are felt. Secondly, it is always difficult to say what exactly the effects of a policy were. There is no laboratory situation. So we have to expect lengthy discussions on the actual costs and benefits of industrial policy programs. Thirdly, the revocation of such a program will also take a long time because there are presumably always vested interests in its continuation. This will influence political decisions very much. — All these factors prolonging the life of selective government programs appear to have been present in the case of the Swiss watch-making industry.

— When government, alternatively, tries to repair suffering or broken price system reaction chains it has to secure conditions for effective signalling and reacting in the price system. It may do so by reducing inflation, by keeping to a policy of fairly flexible exchange rates and by controlling externalities in costs and benefits as well as in risk. Furthermore, government has to lead a competition policy favouring conditions of optimum intensity of competition in industry as well as of effective efficiency control on the capital market.

— The benefits of such a global policy to increase competitiveness may to some extent be external to the industry suffering from structural weaknesses. The market forces may demand heavy and rapid restructuring in a particular industry and thereby displace resources which can be used more efficiently elsewhere in the economy. This may lead to improved competitiveness of the economy as a whole to the detriment of particular industries. The partly external nature of the benefits of global measures to improve competitiveness may explain the fact that the exponents of economically threatened industries at management as well as at trade union level are generally tending to prefer selective measures, while as the other members of the business community — i. e. growth industries, banks etc. — are usually advocating global policies.

Apart from reasoning on purely Weltanschauung grounds, i. e. either from pronounced liberal or socialist vantage points, it appears to be impossible to give general preference to the one or to the other type of policy. We certainly must admit that policy selection is extremely difficult in this area. We think that a rational process of policy selection is implying a through analysis of the case of the particular industry. The history of a particular industry may well explain weaknesses and in this way give many valuable hints on the "dos" and "don'ts" of industrial policy. This opinion is strengthened by what we learned in the case of the Swiss watch-making industry.

The complexity of policy selection is much enlarged when we introduce the goal of reducing the socially harmful effects of economic change in addition to the efficiency goal stressed alone so far. In the course of a R.E.S.-conference on Government and Innovation[27] *Sir Alec Cairncross* remarked that many of the British economy's difficulties in innovating and in rapidly adapting to structural change might have to do with a deep seated reluctance of British society to bear the social costs of economic change. If such feelings exist and are politically relevant — and we think this is so not only in this country, but also in other Western industrialised democracies — economic policy makers have to accept this and select their policies accordingly. Policy selection has to be rational not only from the point of view of economic efficiency but also from the point of view of social preferences.

Policies can be combined. This is very important in the light of the requirement of having at least as many different instruments as policy goals. We mentioned this in our introduction. So governments may combine a global policy with selective measures to improve competitiveness. Or it may — in order to reduce potential conflicts — combine global policy measures with programs of regional and/or manpower or labour market policies. We have the impression that policy combinations of the latter kind will most probably lead to acceptable results[28].

Measures of labour market policy of the kind in operation in the FRG at present and basically relying on the market mechanism can improve the adaptability of employment to economic change very much and can furthermore reduce considerably the social burden of change[29]. Regional policy is selective like industrial policy. From the economic point of view an a priori-preference is therefore not justified. But there is an important political argument which gives regional policy a special position: In federalistically organised countries the basic political units are the regions. Federalism presupposes that regions are of comparable demographic and economic strength. Selective measures to reduce regional disparities may therefore be defensible on political grounds. A similar justification cannot be obtained in the case of industrial policy. Generally, particular industries are not considered as the basic political units in our democracies.

---

[27] July 1975, Pembroke College, Cambridge.
[28] The requirement of applying mixed policies is discussed by *Gahlen* (1978).
[29] *Mertens* and *Kühl* (1977).

Summary

There appears to emerge a general agreement that more selective policies are needed to fight contemporary economic problems. By closely inspecting the supporting arguments and some empirical evidence in the case of the Swiss watch-making industry it is shown that the outcome of a comprehensive process of policy selection need not consist in an industrial policy program. Strengthening the market mechanism can be a valid alternative. It is, furthermore, argued that a combination of measures of global demand stabilisation with competition, regional and labour market policies may yield more satisfying results than straightforward industrial policy programs.

Zusammenfassung

Die Auffassung, daß zur Lösung der gegenwärtigen wirtschaftspolitischen Probleme selektive Maßnahmen der Wirtschaftspolitik erforderlich sind, scheint immer mehr Anhänger zu finden. Wenn man die Argumente der Reihe nach durchgeht und zudem auch den konkreten Fall der schweizerischen Uhrenindustrie betrachtet, zeigt sich aber, daß sich industriepolitische Maßnahmen keineswegs zwingend aufdrängen. Die Verbesserung der Funktionsfähigkeit der Märkte ist durchaus eine echte Alternative. Vorteilhafter als industriepolitische Programme erscheinen Programme, in denen Maßnahmen der globalen Nachfragestabilisierung mit solchen aus dem Bereich der Wettbewerbs-, der Regional- und der Arbeitsmarktpolitik kombiniert werden.

Literature

Abramovitz, M. (1952), Economics of Growth, in B. F. Haley (ed.), A Survey of Contemporary Economics, II, Homewood, Ill.

Arbeitsgruppe Regionale Einbrüche — Uhrenindustrie (1976), Grobkonzept, Bern.

Arrow, K. J. (1962), Economic Welfare and the Allocation of Resources for Invention, in R. R. Nelson (ed.), The Rate and Direction of Inventive Activity, Princeton.

Bernholz, P. (1972 and 1975), Grundlagen der Politischen Ökonomie, 2 vols, Tübingen.

Blattner, N. (1977 a), Volkswirtschaftliche Theorie der Firma — Firmenverhalten, Organisationsstruktur, Kapitalmarktkontrolle, Berlin, Heidelberg, New York.

— (1977 b), Structural Change in Swiss Watch-making Industry and Public Policy Response in Switzerland, Report to the OECD Joint Working Party on Technology and the Structural Adaptation of Industry, Federal Office for Industry and Labour, Bern.

Bombach, G. (1976), Ausgangslage, Ursachen der Inflation und Hauptinstrumente der Stabilisierungspolitik, in N. Celio (ed.), Inflationsbekämpfung unter veränderten wirtschaftlichen und sozialen Bedingungen, Bern, Stuttgart.

Bonus, H. (1977), Ordnungspolitische Aspekte öffentlicher Güter, Paper presented at the Annual Meeting of the Verein für Socialpolitik, 19 - 21 September, Münster.

Botschaft des Bundesrates an die Bundesversammlung über die schweizerische Uhrenindustrie (Uhrenstatut) (1960), Bern.

Botschaft des Bundesrates an die Bundesversammlung über die offizielle Qualitätskontrolle in der schweizerischen Uhrenindustrie und die Ergänzung des Markenschutzgesetzes (1970), Bern.

Dahl, R. A. and C. E. *Lindblom* (1963), Politics, Economics and Welfare — Planning and politico-economic systems resolved into basic social processes, New York, Evanston, London.

Gahlen, B. (1978), Strukturpolitik in der Marktwirtschaft, in: Wirtschaftsdienst, Nr. 1.

Giersch, H. (1975), Wachstum durch Strukturwandel, in: P. Harbusch and D. Wiek (ed.), Marktwirtschaft, Stuttgart.

Hill, W. (1977), Die Wettbewerbsstellung der schweizerischen Uhrenindustrie, Report to the Federal Department for Political Economy, Basel.

Hodgson, D. L. (1977), Government Industrial Policy, in National Westminster Bank Quarterly Review, August.

Hoppmann, E. (1966), Das Konzept der optimalen Wettbewerbsintensität, in Jahrbücher für Nationalökonomie und Statistik, 179.

— (1967), Die Funktionsfähigkeit des Wettbewerbs, in Jahrbücher für Nationalökonomie und Statistik, 181.

Kamien, M. I. and N. L. *Schwartz* (1975), Market Structure and Innovation: A Survey, in Journal of Economic Literature, 13, 1.

Kantzenbach, E. (1967 a), Die Funktionsfähigkeit des Wettbewerbs, 2nd ed., Göttingen.

— (1967 b), Das Konzept der optimalen Wettbewerbsintensität, in: Jahrbücher für Nationalökonomie und Statistik, 181.

Kaufer, E. (1966), Kantzenbachs Konzept des funktionsfähigen Wettbewerbs, in: Jahrbücher für Nationalökonomie und Statistik, 179.

— (1967), Das Konzept der optimalen Wettbewerbsintensität, in: Jahrbücher für Nationalökonomie und Statistik, 181.

Kapp, K. W. (1958), Volkswirtschaftliche Kosten der Privatwirtschaft, Tübingen, Zürich.

Mertens, D. und J. *Kühl* (1977), Arbeitsmarktpolitik, in Handwörterbuch der Wirtschaftswissenschaft, Stuttgart, Tübingen, Göttingen.

Neue Zürcher Zeitung (1976 a), 37, 14 - 15 August.

— (1976 b), 249, 23 - 24 October.

— (1977 a), 58, 10 March.

— (1977 b), 203, 31 August.

OECD (1977), Towards Full Employment and Stability, Paris.

Preisbildungskommission des Eidg. Volkswirtschaftsdepartments (1959), Darstellung und Würdigung der privat- und öffentlich-rechtlichen Konkurrenzregelung in der schweizerischen Uhrenindustrie, Bern.

Pryor, F. L. (1973), Property and Industrial Organisation in Communist and Capitalist Nations, Bloomington, London.

Riese, H. (1978), Strukturwandel und unterbewertete Währung in der Bundesrepublik Deutschland — Bemerkungen zur theoretischen Position des Instituts für Weltwirtschaft Kiel, Konjunkturpolitik, in print.

Samuelson, P. A. (1954), The Pure Theory of Public Expenditure, in: Review of Economics and Statistics, 36.

SEEPC (1977), Note by the Shadow European Economic Policy Committee, 27 May, Paris.

Siebert, H. (1977), Sektorstruktur, Preise und Faktorallokation, in: Jahrbücher für Nationalökonomie und Statistik, 192.

Schultz, D. (1973), Staatliche Eingriffe bei strukturellen Branchenkrisen und ihre Vereinbarkeit mit der Marktwirtschaft, dargestellt am Beispiel des „Schweizerischen Uhrenstatuts", Freiburg i. Br.

Tinbergen, J. (1967), Economic Policy: Principles and Design, 4th ed., Amsterdam.

Werner, J. (1975), Geldwertstabilität als materiales Stabilitätsziel, in: H. K. Schneider, W. Wittmann and H. Würgler (ed.), Stabilisierung in der Marktwirschaft, Berlin.