

Kv.
(157.)
Håkan Lindgren
Ed

ECONOMIC DYNAMISM

IN HONOUR OF ERIK DAHMÉN

September 14, 1996

EKONOMISKA BIBLIOTEKET

1996 -10- 28

LUND

EKONOMISKA BIBLIOTEKET

1996 -10- 28

LUND

LUNDS UNIV. EKONOMISKA BIBL.



15215

001093717

Research Report No 6



INSTITUTET
FOR
EKONOMISK HISTORISK FORSKNING

Towards the Dahménian Approach: A Review of the Early Contributions of Erik Dahmén

ROLF G H HENRIKSSON

1. Introduction

Dahmén's licentiate thesis presented in 1942 at the University of Lund must be given a key position in an account of his contributions. Here we find the major programmatic statement defining his task as well as the scope and method of what we now call the Dahménian Approach. As we shall note at the end of this essay it constituted the point of departure not only for his renowned doctoral dissertation (Dahmén 1950) but also for the later directions which Dahmén's research took. Because of the importance of the thesis it is of interest to look more closely at Dahmén's antecedent writings. Thus the major part of this essay will review the stages of Dahmén's work leading up to the thesis.

This retrospection will be carried out chronologically and cover most of Dahmén's writings prior to the licentiate thesis. We will first note that his publication list begins already in 1937 when he made an interesting contribution as a discussant at a Nordic conference for young economists (Dahmén 1937). His first substantial paper on his central theme of "malinvestment" appeared in 1939 (Dahmén 1939). We will next turn to his writings of 1941, revealing his reactions to Schumpeter's *Business Cycles* (1939). A first seminar report of that study was presented in the spring (Dahmén 1941a) and was summed up in a short book-review that appeared in print in the fall (Dahmén 1941b). An additional book-review of 1941 on an American investment study shows that Dahmén's licentiate thesis was now under way (Dahmén 1941c). The licentiate thesis itself was presen-

ted in a lengthy manuscript in the spring of 1942 (Dahmén 1942a) and a summary of it was published later that year (Dahmén 1942b). Finally, an interesting review of Alvin Hansen's stagnation thesis also belongs to the crop of writings related to the licentiate thesis (Dahmén 1942c).

2. The Theoretical Commitment of 1937

Dahmén's study of economics in Lund began in 1935 and he very soon found the topic from which his entire career evolved. The decisive influence came from his teacher Johan Åkerman who in that period seems to have been particularly interested in Hayek's writings on malinvestment (Hayek 1935). This type of investment dynamics had been on Åkerman's research agenda for some years (Åkerman 1934). In October 1936 when Dahmén, who early seemed bent on studying the business cycle, passed his first oral exam for Åkerman the latter suggested that Dahmén focus on the malinvestment concept in his continuing higher degree work.¹

Dahmén accordingly committed himself to exploring the dynamics of investment with a focus on malinvestments. This is documented in his comments as a discussant at the 1937 Helsinki meeting of the Young Nordic economists (Dahmén 1937). At that time Dahmén viewed malinvestments as inherent in the business cycle, but as an element that was mainly revealed at upper turning points. Because of this he was criticized from Keynesian quarters for merely advancing a type of overinvestment theory. Dahmén, however, made clear, thereby showing an early antikeynesian preference for disaggregated analysis, that he resisted the then increasingly accepted "macro residual" concept of savings and the concomitant passive role assigned to the supply side of the capital market. Instead he emphasized the active role of capital supply and considered market imperfections in the transfer of monetary savings to be crucial. Such imperfections might decisively influence which of many potential malinvestments that would be "actualized" in periods of credit strains typical of upper turning points.

This was a sophisticated view but Dahmén was no doubt, as his later work would demonstrate, disturbed by the confining short term perspective that the business cycle framework in this way imposed on the analysis.²

3. The Malinvestment Theory of 1939

In the seminar paper of 1939, which was read to the third Nordic meeting of young economists in Copenhagen in May, Dahmén presented an initial report on his work with the malinvestment concept (Dahmén 1939a). He had now made substantial progress by putting it in a macro sequence perspective and by explicitly taking the role of credit into account. Analyzing the malinvestment dimension of the business cycle, Dahmén elaborated on a deep-cutting set of concepts distinguishing between e.g. "potential" and "actual" malinvestments, new and sustained credit etc, but always with a view to the empirical application possibilities. This implied attention to the need for statistical measurement as well as offering a large number of suggestions about possible intriguing causal relationships.

A basic measurement need was taken care of by simply defining malinvestment operationally as investments that incurred losses. As long as these losses allowed some coverage of fixed costs a malinvestment was still only a potential malinvestment, but once revenue failed to cover direct variable costs the malinvestment would be "actualized". As to causal interpretations Dahmén displayed an effort to conceptualize the motives and the behavior of individual actors where "atomistic" rationality was only one of the elements.

Dahmén now availed himself of the concept of "perception field", in Swedish *blickfält*, an analytical tool apparently of Hayekian origin mediated to him through Åkerman. A central step in his analysis was the systematic exploration of the consequences of the shortening of the perception fields that eventually take place during the upswing phase of the cycle. This was seen as the decisive factor that made latent malinvestments acute. Dahmén could in his analysis point to the key role played by divergences between the perception fields of investors and savers and the way in which bankers, with perception fields of their own, performed a coordinating function.

Dahmén had with these concepts clarified the promise inherent in pursuing the dynamics of the business cycle along malinvestment lines, but he had with these also opened the door to explaining the structural dynamics of the system. Here the basic strategic advance was to move beyond the problems of short term dynamics into issues of long term economic change. The decisive step was the observation that not yet "actualized" malinvestments, i.e. still only potential ones, might be stocked-piled, i.e. stored, over a number of cycles.

Malinvestments that failed to be eliminated, i.e. liquidated, during crises periods would thus cumulate into a growing burden of unprofitable debts and might lead the economy into a depression.

Here Dahmén's commentary, although brief, offered a number of interesting suggestions as to why such a depression might be a long lasting phase of the business cycle. The stock of malinvestments would constitute a source of cumulative losses in the system creating a continuing need to release factors of production from being unprofitably tied up. Yet this pressure might only slowly overcome the various institutional and political forces of financial resistance. Since hope springs eternal, losers, perhaps nourished by the remembrance of previous survivals, might only slowly yield and allow some kind of terminating exit to occur. Malinvestments that survived might perhaps even experience restored profitability and could, at least temporarily, be deleted from the roster of losses and resume positions as expansionary forces in the system.

The importance Dahmén attached to the malinvestment burden made him propose that it be measured by some index of "malinvestment intensity". With this empirical tool, summing up his elaboration of the long term malinvestment phenomenon, Dahmén was able to suggest a very interesting interpretation of the interaction between the short term business cycle and the secular waves in the history of industrial expansion.³ Specifically addressing himself to the Great Depression that started in the early 1870s and lasted until the mid 1890s, he proposed that this was a period of gradual depletion of the stock of potential malinvestments that had accumulated prior to the 1870s in a period of expansion dating back to the 1840s. Analogously, he saw the end of the depression in the mid 1890s as the beginning of a new period of expansion, again entailing a cumulation of stockpiled potential malinvestments. Dahmén's analysis implied that the period of depression, to use his own operational terminology, was a period of falling "malinvestment intensity", while the "malinvestment intensity" changed in the reverse direction during booms.

One might note that in his terse comments on these implications, Dahmén comes close to resorting to words such as "malinvestment pressure". This would have been an expression indicative of conceptual affinity with later ideas of his, such as "transformation pressure" (Dahmén 1992). One may also note that the term "structural transformation" appears several times in the 1939 paper. This suggests

that Dahmén was already close to his conceptual breakthrough of 1941, when that term received definitive specification as a concept. We will shortly return to this.

4. Towards a Theory of Constitutional Change

In the concluding section of the 1939 paper, Dahmén presented a discussion which in retrospect is a striking anticipation of key elements in his later writings of the problems of a mixed economy. Although many of the ideas in that section of the paper are not captured in formal concepts, they are sufficiently clear to render precision to the argument as a contribution to public choice dynamics. In providing a creative elaboration of an Åkerman theme Dahmén here suggested a logically coherent systematic theory of economic-political regime-shifts. He conceived of a transformation of economic-political structure or, as it might with reference to present day discourse be called, a positive theory of constitutional change.

Dahmén starts with the historical observation that political systems over time seem to evolve from one type to another. If explicitly posed in Åkerman's framework, they would be moving along an x-y scale with the intermediate positions denoting so called mixed systems. The shift would occur from the extreme of the x-starting point, which would be a system with a liberal laissez-faire oriented institutional make-up, over an intermediate range of mixed constitutional designs, to the opposite extreme of a totalitarian centrally planned system.

Basic to Dahmén's conception of the driving forces of the process was the presumption that the policy activities of governments would be directed at preventing, or countering, malperformances of the system. The type of malperformance focused on in Dahmén's presentation is an excessive "malinvestment intensity". Dahmén, however, recognized that with the constitutional shift from a liberal to a mixed system, and then further to a totalitarian system, the norms for government economic policy activities were extended and transformed thus revealing the influence of other types of political concern. As the starting point in schematically describing the mechanism of the process Dahmén assumed a liberal laissez-faire economy having a minimal government with general monetary and fiscal policies as the only means of controlling the "malinvestment intensity"

in the system. However, as long as the applications of these policy instruments were not allowed to serve objectives beyond the goal of price stability, there was no way in which the government could effectively control the level of "malinvestment intensity". Thus the economy would be disrupted by the various consequences of that policy failure. Dahmén is not explicit about the likely types of consequences, but as the main issues of the paper are those of business cycle analysis, one may conceive of cyclical fluctuations as the prime case in point.

The disruptions of the *laissez-faire* economy will bring about the constitutional shift to a mixed economy which would make the authorities less constrained in their choice of policy measures. The government concern for the "malinvestment intensity", however, will now be mingled with other policy goals which might actually obstruct that formerly dominant commitment. The main source of trouble would be the interlocking nature of investments and hence also of malinvestments. As the government would now intervene selectively to attend to malinvestment trouble spots, it might negatively disrupt other investment points in the system and thus inadvertently extend the malinvestment web. To avoid failures of that sort the government would have to set up comprehensive intervention schemes that could take all investment interdependencies into account. Not surprisingly such more comprehensive intervention schemes are, in the stated Dahmenian framework, even more likely to fail. Thus the mixed economy would move further towards a totalitarian centrally planned economy.

Dahmén leaves much to the imagination of the reader. Having arrived at the totalitarian constitutional escape point for the system, the reader might infer that here no private enterprise would exist. However, although schematic, Dahmén's analysis encourages him to maintain that a government still have to face up to the general problem of investment interdependency. Technical and social network ties would exist even if markets had been eliminated from the system. Thus Dahmén tacitly imparts many reasons as to why this system too will have to collapse. Even though this is an extreme case, it is not empirically uninteresting.

One may note that no system in Dahmén's scheme appears to offer a stable resting point for the economic-political structure. Dahmén offers no specific commentary on this, but his later writings seem to imply that the continuous shift of the economic-political

structure is not a solely political process, but rather is the outcome of the interaction of this structure with the rest of the economy seen as a system of production in a more narrow sense.

5. The Impact of Schumpeter

What Dahmén had presented in the 1939 paper was a comprehensive program for historical research which promised interesting rewards as a basis for analysing long term economic policy problems. However, this was only the initial part of the even more comprehensive research program presented in his later licentiate thesis. Above all the two basic elements of that latter program were still missing, the concept of transformation and the concept of development block. Both these elements were developed by Dahmén after he in the fall of 1940 had begun reading Schumpeter's new study on business cycles (Schumpeter 1939).⁴

A point to be underscored is that the role Schumpeter played for the further development of Dahmén's research program, was not mainly that of offering ready made concepts for Dahmén to include as complements in his previously assembled arsenal of analytical tools. Rather the importance of Schumpeter was that of inspirer and in making Dahmén see things from a new vantage point. What impacted most on Dahmén was Schumpeter's vision, but it needs to be underlined that Dahmén himself held a sophisticated world view prior to being confronted with Schumpeter's. One explanation why Dahmén in important respects reached further than Schumpeter is simply that he could benefit from Schumpeter's broad views and insights while Schumpeter never had the opportunity to benefit from Dahmén's. As to the conceptual and technical details of Schumpeter's contribution Dahmén was in fact rather critical, but even here Schumpeter was of importance in provoking Dahmén to develop better alternatives.

Unlike Dahmén, who with his previous focus on the malinvestment concept may be said to have considered merely the negative side of the development process, Schumpeter had focused on and analyzed the factors that constituted its progressive or front side. Dahmén recognized that Schumpeter here, in the concepts of innovation and the entrepreneur, had found the key to the problem of economic development, but one should add that Dahmén better than

Schumpeter seems to have known how to turn that key and he forged an even better one. In instituting the fusion between Schumpeter's innovation diffusion/absorption process and his own malinvestment process Dahmén arrived at a more complete or generalized notion of the transformation than Schumpeter. As we shall see the latter paid causal attention to the negative side mainly in so far as it was a business cycle feature of the innovation wave.

Basic to Dahmén's creative grasp of Schumpeter's innovation wave was his visualising of the innovation diffusion/absorption process as essentially a process of transformation rather than of growth. This transformation process could schematically be seen to entail the two sides subsequently referred to by Dahmén as the positive side and the negative side, corresponding to what in common parlance could also be called the progressive and the retrogressive sides. The diffusion/absorption of an innovation could, following Schumpeter, be seen as a primary wave. The way this Schumpeterian primary wave concept specifically impacted on the Dahménian malinvestment mechanism seems to be the sharp distinction it generated between what Dahmén later called strategic and original malinvestments. Original malinvestments were those investments that earned unsatisfactory returns or ran with a loss as a consequence of being on the negative side of the primary wave. They were losing in the competitive race by having their profits cut both from below and from above; From below, as a result of experiencing increasing factor costs, when activities on the positive side expanded and absorbed more factors of production; from above, as a result of experiencing weakening market demand as more progressive activities instead gained strength and positions.

The strategic malinvestments on the other hand were those investments that, while still being on the progressive side and thus part of the primary wave, failed to earn a satisfactory return or ran with a loss on ventured capital. Such unsatisfactory results could arise because investments were badly managed but they could also be the result of ill timing. The latter could be seen as a special type of inadequately designed projects to fit the specific profit opportunity that inhered in the unfolding of the potential of the innovation that carried the wave. The concept of strategic malinvestments may be seen as a proto-development block. Or, put more simply, Dahmén's concept of Development Block may be seen as an extension of the notion of strategic malinvestment. It was a feature of investment

interdependencies on the positive side of the transformation process i.e. it was part of the mechanism of the diffusion/absorption of an innovation.

However, Schumpeter probably also provided a second impetus to Dahmén's launching of the development block concept. In Schumpeter's 1939 study the diffusion/absorption of innovations was seen as a stepwise process. Thus the onward thrust of the innovation wave was only gradually exhausting itself. This offered a final opening for Dahmén's notion of Development Block, as this concept refers to the potential for further investment created by the complementarities in the exploitation of investment opportunities unfolding precisely in a stepwise process. Dahmén's prime example was the completion of a railway network, which was pushed on by the inherent imbalance of not having exhausted the full potential of extending its trunk lines between major cities, or perhaps of not having built all the possible feeder lines.⁵

On the other hand, one may note, that the interdependencies that may exist also between ordinary malinvestments suggest the possibility of talking about a "dismantling" or "deconstruction" block, in Swedish *avvecklingsblock*. Actually Dahmén has himself seen this and in his later writings elaborated also on that notion (Dahmén 1989, 1992).

Schumpeter, when dealing with the impact of innovations on the negative side of economic development had, as announced above, mainly advanced a business cycle interpretation, although granting that the primary cycle should be viewed as inherent in the process of long term economic development. Invoking the distinct workings of an output lag he saw the depression phase of the business cycle following upon an investment boom as the main "negative" impact of the advance of the innovation diffusion/absorption process. However, also the boom exerted a transformation pressure on the negative side. During the boom the innovation wave would absorb additional factors of production thus possibly creating a cost squeeze on the profit margins of economic activities on the negative side. During the depression, seen as the consequence of the maturing of investments that had been undertaken during the boom, the negative impact from the innovation wave was mainly due to the decrease in prices and possibly decreased market shares that the progression of the innovation absorption/diffusion process imposed on old lines of business.

The notion of Development Blocks, when coupled with the malin-

vestment idea, made it possible for Dahmén to further develop Schumpeter's view of the business cycle as an endogenous feature of the evolutionary process. In elaborating on malinvestments as the retreating rear of the transformation process and on development blocks as constituting its advancing front, Dahmén made the observation that there is no a priori reason why the innovation diffusion/absorption process should be well synchronized with the malinvestment stockpiling process. The stepwise absorption of the innovations and the cumulative additions and depletions of the stock of potential malinvestments need not match each other over time in a balanced way. Dahmén's view that both sides would to some extent reveal a dynamics of their own, independent of each other, seems to have interesting implications. We may find that a smooth primary wave might be combined with a humpy malinvestment process; or that a smooth malinvestment process might be combined with a primary wave with a marked output lag. But neither output lags in innovation waves nor humpy malinvestment processes are necessary and in the absence of both the transformation process might be a fairly stable type of "creative destruction", as Schumpeter himself seems to have realized when he largely abandoned the Kondratieff wave hypothesis as an interpretative tool for the emergent late stage of capitalism he was confronted with in his old days (Schumpeter 1942).

The reason for Schumpeter's relative neglect of the rear of the transformation process even when seen as a business cycle problem, seems to have been that he focused in the main on the introductory entrepreneurial phase of the innovation wave process. Yet, it was precisely the later phases of a primary innovation wave that exerted the major disruptive pressure on the system. Even when not wholly ignoring the ensuing innovation diffusion/absorption process, with its booms and busts, it was treated less as an entrepreneurial adjustment process and more as an automatic market equilibration phenomenon.

In contrast to Schumpeter's view, (Schumpeter 1939), that depressions were mainly innovation diffusion/absorption equilibration processes, Dahmén viewed a depression as a process of sequential transitions of a more path dependent type. This meant that the process was not destined towards a final equilibrium point. The malinvestment elimination process would thus go on as the important dual of the simultaneously progressing innovation absorption/diffusion process. This was a view quite far from any equilibration

hypotheses and seems close to the views Schumpeter espoused in his final years during which he published his *Capitalism, Socialism and Democracy* (Schumpeter 1942). In that study Schumpeter talks about the perennial gale of creative destruction, indicative of a process seemingly released from all equilibrium tendencies. Schumpeter here comes close to the view that Dahmén had previously advanced in his licentiate thesis, where the static equilibrium notions were disallowed from the picture, at least implicitly.

Although the encounter with and absorption of Schumpeter's revised statement of his theory of economic development had a profound influence on Dahmén, his reactions contained important elements of criticism. A major point was the methodological stance against the equilibrium approach signalled above. Schumpeter, according to Dahmén, was excessively tied to the static equilibrium concept. Dahmén noted that the introduction and absorption of an innovation mainly as a process of transition from one equilibrium position to another, prevented Schumpeter from grasping fully the implications of his own vision.

Of some methodological interest is also the observation that Dahmén, in his 1941 writings on Schumpeter, in contrast to his discussions on malinvestments in 1939, did not provide any comments on the economic policy dimensions of the process. We will return to this below.

As we in this paper are less concerned with assessing Dahmén as a contributor to the Schumpeterian paradigm and rather more interested in how Schumpeter contributed to the Dahménian approach we have suppressed a number of issues that naturally nevertheless may have prompted the reader's attention. One such is of course the question of Dahmén's claim to priority for the concepts and the approach to which he has devoted a life time of thinking and writing and empirical research. On this issue we shall here simply rely on the position taken by Johan Åkerman.

Åkerman has several times recognized Dahmén's priority as regards the "transformation cum development block" view. Most eloquent in also offering a succinct account of how it originated is the following statement regarding Dahmén's doctoral dissertation (Dahmén, 1950). Åkerman is selectively quoted from the translation in Carlsson-Henriksson 1991 p 83:

".....The key (to understanding the method of Docent Dahmén) lies in the notion of malinvestment. This was Dahmén's point of

departure and first object of study. This notion then led – logically, but also quite independently – to the concept of development block, which is Dahmén's greatest invention. ... This forced him to take issue with the state of economic theory. Classical theory, Keynes and the Stockholm School, but also received business cycle theory, are concerned with 'total categories'. Thus they exclude precisely what the author wants to study: the transformation, the interdependence of its component parts rather than the interaction of aggregates such as income, investment and interest rate. This was Dahmén's first crossroad. ... The second crossroad followed immediately. Presented with the option of studying the business cycle – which concerns total changes in national income, saving, investment and so forth – and structural change, Dahmén quite naturally chose structural change, which he coined 'transformation', an apt term of his own making. Hence, Dahmén's study is micro-structural."

6. The Licentiate Thesis and Subsequent Elaborations of the Dahménian Approach

Dahmén's licentiate thesis (Dahmén 1942a) was submitted in manuscript form in the spring of 1942 and was in the fall summarized in *Ekonomisk Tidskrift* (Dahmén, 1942b).⁶

The licentiate thesis pulled together the various strands of Dahmén's early work, but it was not merely a summary of his previous writings. As a synthesis of his research on malinvestments and of his elaborations on Schumpeter it was also a synergetic, qualitatively new, product. As we noted Dahmén greeted Schumpeter's work not only with enthusiasm but also with some reservations and he seems to have maintained an ambivalent attitude to it even in his licentiate thesis. As regards the malinvestment theme, it was now, with some loss of conceptual richness especially in the brief summary version, integrated with the innovation diffusion/absorption theme into a fully developed transformation approach.

Here Dahmén differed from Schumpeter in at least two ways. His concept of structural transformation meant that he went further than Schumpeter in attempting to capture the process of economic development in formal analytic categories. He also diverged from Schumpeter in his view of the business cycle. The business cycle framework of his previous work had now, again especially in the brief

summary version, receded into the background. The business cycle could still be seen as a central element in the picture and could also, following Schumpeter, be handled as an endogenous feature of long term economic development, but it was no longer seen as inherent in it. Structural transformations without business cycles were conceivable to Dahmén. With this he had also emancipated his approach from the equilibrium leanings of Schumpeter.

The completion of the thesis seems to have entailed some restructuring of the research program of 1939. Possibly his attention to economic policy, as a normative theoretical problem, receded somewhat, but this was probably mainly due to the change of issues caused by the war. There probably was no change in his policy views as such. Economic policy in the new, more long term, Keynesian discourse on the stagnation thesis was still mainly a matter of fiscal policy which, as may be seen from his review of Alvin Hansen (Dahmén 1942c), continued to be anathema to Dahmén not only on methodological grounds.

Thus as little restructuring of the research program was due to shifts in policy stance, the main restructuring must have been due to the substantial progress he had made in his scientific work. However, closer inspection reveals that, although notable changes may be registered, these were mainly of a formal design nature and the new formulations required no radical break with his earlier approach. Thus in outlining the scope of his continued work Dahmén could rely on the analytical compartmentalization of his previous research.

Hence Dahmén divided the area of his future research into four structures, at least two of which already having been treated as rather separate projects. One of them was the notion of production structure and the other was the notion of economic-political structure. In addition to these, he also advanced the notions of monetary structure and social structure. Nor were these new to him. What was new was the elevation of these structural notions into defining labels for four different lines of possible research.

Dahmén's next station in his career, his position with the IUI, did not provide him the opportunity immediately to continue his research. As several years elapsed before he again focused on the issues he had pursued in the licentiate thesis, the design for the follow up research turned somewhat obsolete and the division into four structural lines of research apparently became increasingly irrelevant. They seem to have lost much of their guiding role by 1945 when Dahmén began work on his doctoral dissertation (Dahmén

1950). This study in focusing on the industrial sector mainly considered one of the four structural lines, the production structure. However, although Dahmén's subsequent work was later restructured many times, the licentiate structure was not entirely abandoned. As Dahmén towards the end of his career brought his various lines of research together, he seems to have found these structural notions at least somewhat useful.

Looking at Dahmén's subsequent research from a more substantive point of view one is struck by the strong continuity that connects his very latest contributions with his early work. Thus despite the lapse of more than fifty years even his recent production may be viewed as elaborations of his early ideas. However, there has over the years also been some discontinuity as the following brief overview reveals.

One line of research leading up to his 1950 doctoral dissertation (Dahmén 1950, 1970) was the historical study of Sweden's industrial dynamics as an application of his **transformation and development block concept** (The TDB-theme.) This theme was subsequently somewhat dormant for many years but after revisiting it a couple of times Dahmén finally resumed work on it in a full scale research project with the IUI during the late 1970s and early 1980s. (Carlsson et al. 1979, Dahmén/Eliasson 1980, Dahmén 1982a, 1984b, 1988).

Rooted in his very early writings is also Dahmén's second major research theme, here referred to as the **Transformation cum the Mixed Economy topic** (the TME-theme). This theme in public choice dynamics was dormant during his doctoral dissertation work in the 1940s, but it was gradually resumed in the 1950s (Dahmén 1959). It has thereafter been most actively pursued in the late 1960s and the years following (Dahmén 1977 and 1982b). Dahmén here has dealt especially with the structural inconsistency problems of the mixed economy that became acute during the 1970s. He has focused particularly on macro economic issues such as the role of the EFO and Rehn-Meidner schemes for Swedish stabilization policy.

After the 1970s, however, Dahmén has tried increasingly to pull these various research agendas closer together into a more comprehensive approach.⁷ Although Dahmén himself would probably be the last to claim strong success, he has made important progress and the results of his applied research are impressive. Thus the Dahménian approach has in recent years received much attention especially among economic historians (Glete 1987, Schön 1991) and although

economists have long been more reluctant to pay as much attention to his work, there have in the most recent years been many signs of an emergent Dahménianism also in these circles (Carlsson 1991, Ek-lund 1991, Erixon 1995). As the economists constitute the group Dahmén most of all has sought to influence he and his small number of disciples have still got some work to do before being able to do a more successful battle with the entrenched orthodoxy ruling mainstream tradition in the economics profession.

7. A Scientific Development Block

When after the licentiate thesis Dahmén's two main themes parted company, this was not due to an incompatibility in their conceptual differentiations, but rather to the split in the queries Dahmén attended to. However, living separate lives for long periods the two themes had for some time diverged also conceptually which has made later analytical "docking" attempts between them more difficult. Despite Dahmén's, in fact impressive, progress in further developing and promoting the Dahménian approach, one may from the account above infer that the Dahménian approach is what might be called an incomplete "scientific development block". There is still an analytical imbalance between his two major themes that seem to hamper fully integrated applications. This on the other hand offers a challenge. Further progress with the TDB theme would require advances in the TME sphere and vice versa. The ex ante conceptions of how to proceed with this development block is in search of its entrepreneur. However, Dahmén himself will no doubt provide the needed dynamism for many additional years.

Notes

¹ Dahmén has recounted that Åkerman typically selected the topic or shaped his advising to suit what he considered to be the particular interests, aptitudes and capacities of the individual student (Dahmén 1996).

² Dahmén's participation in the conference discussion is in general quite interesting since it reveals his later much documented readi-

ness to stand up and speak his mind also on economic policy issues. This time, in early 1937, the policy issue of the day concerned whether the *krona* should be appreciated. This, according to Dahmén, had to be resolved with a view to the impact on the supply of savings in a segmented capital market. In his scheme of things, this imperfection in the capital market had a special bearing on the "actualization" of malinvestments that would result from such an exchange rate policy.

As seems to have been the accepted custom in presenting seminar drafts Dahmén offers no references to the literature. He was initially probably mainly inspired by Åkerman who had analyzed this type of interdependence at some length and who in so doing also introduced his readers to the emergent extensive discussion on secular waves (Åkerman 1928 pp 259–264). Thus anyone who had read Åkerman would be familiar with Kondratieff's (1926) work as well as with the positions of Fisher, Schumpeter and Wicksell on the theoretical issues related to such waves. Dahmén might, of course even without the guidance of Åkerman, have come across Wicksell's treatment more directly by reading Wicksell's own work (Wicksell 1898), but after reading Åkerman it would have been particularly difficult for him to ignore Wicksell's specific contribution to the interpretation of secular price movements. Wicksell's analysis of the long price waves of the 19th century constituted the empirical base supporting his theory of the differential between the natural and the market rate of interest as the proximate cause of cumulative price movements.

However, Åkerman mediated Fisher's and especially Schumpeter's ideas less persuasively. Anticipating the later question regarding Schumpeter's (1912, 1926, 1934) influence on Dahmén one may conclude that Åkerman could not have been a strong promoter. While recognizing the many virtues of the Schumpeterian approach, the prime one being Schumpeter's view of the business cycle as an inherent feature of a progressive economy, Åkerman especially criticized the general validity of Schumpeter's "output lag cum credit deflation" interpretation of depressions. Åkerman also thought that Schumpeter, in his 1926 revision of his prewar account of the dynamics of economic development, had retreated too much from his previous alignment with the theory of J B Clark (1907) which to Åkerman still seemed to offer the necessary broader approach. Generally, Åkerman advanced Wicksell rather than Schumpeter as the proper point of departure in developing a more satisfactory theory of dynamics because Wicksell had provided a better stationary state grounding than Schumpeter. The latter had failed to offer a theory of capital formation as a satisfactory base for his wellknown controversial theory of interest.

Dahmén reported on his reactions to this work in the spring of 1941 in a seminar paper, which was later that year published in shortened version in the form of a book review (Dahmén 1941a,b). Recognizing the dual aspects of Schumpeter's innovation process, and in doing this actually transcending Schumpeter's view, Dahmén, in his 1941

writings, again discussed the term transformation which he had first coined in the 1939 essay. This time, however, he presented its full content, thereby also arriving at his second conceptual contribution, the Development Block, for which only weak affinities may be found in Schumpeter's works.

That the possibility of marrying the Schumpeterian concept of economic development to his own did not occur to Dahmén until in the fall of 1940, when he began reading Schumpeter's new two-volume work, *Business Cycles* (1939), remains somewhat of a mystery. As made clear in note 3, Dahmén could not possibly have failed to be acquainted with Schumpeter's previous great work (1912, 2nd ed 1926 Engl. ed. 1934). Yet, except for an occasional phrase which may be incidental, there is little to indicate any Schumpeter influence on Dahmén's 1939 project design.

For further comments on this background story see Carlsson-Henriksson (1991) pp 17–24. For a full account of the role of Schumpeter for Swedish economics see Swedberg (1996).

Thus Dahmén's concept of a development block can only partly be seen as an extension of ideas of investment interdependence he had presented previously in his 1939 paper. Here he had advanced several observations concerning the mutual dependence of malinvestments, which made it natural for him to conceive of investment interdependencies even in the case of new investments. However, as he at that time had not yet arrived at the distinction between original and strategic malinvestments he had not yet arrived fully at the development block notion.

For additional details on the licentiate thesis and for an English translation of the summary version see Carlsson-Henriksson (1991, pp 23–41).

In this context Dahmén's specific steps to achieve a synthesis of his two themes are of special interest. Here his research on the economic problems of Finland – two major monographs and a substantial number of papers and reports come to mind – and its economic development experience and outlook for the future, have been of particular importance (Dahmén 1963, 1984b). The task of assessing, as an outside observer, the problems of the Finnish economy, actually necessitated an integrated application of the Dahménian approach.

References

- Bergman, L., 1991, "Environmental Policy in the Mixed Economy" in *Skandinaviska Enskilda Banken Quarterly Review* 1991:3-4.
- Carlsson, B and Henriksson, R G H, (eds) 1991, *Development Blocks and Industrial Transformation*. IUI, Stockholm.
- Carlsson, B, Dahmén, E, Grufman, A, Josephsson, M and Örtengren, J, 1979, *Teknik och industristruktur – 70-talets ekonomiska kris i historisk belysning* (Technique and industrial structure – the crisis of the 70s in historical perspective). IUI & IVA, Stockholm.
- Carlsson, B, 1991, "Factory Automation: a Development Block in the Swedish Engineering Industry" in *Skandinaviska Enskilda Banken Quarterly Review* 1991:3-4.
- Clark, J B, 1907, *The Essentials of Economic Theory*, New York.
- Dahmén, E, 1937, Contributions to *Socialpolitik och planekonomi* (Social policy and the planned economy), Helsingfors. This volume, for which no editor is listed, reports on the proceedings of the Nordic meeting for younger economists in Helsinki, June 26-29.
- Dahmén, E, 1939, "Begreppet felinvestering som konjunkturteoretiskt instrument (The concept of malinvestment as a business cycle theoretical instrument)". Unpublished paper presented in Copenhagen at the Nordic meeting for young economists May 27-30 1939.
- Dahmén, E, 1941a, "Analys av några konjunkturteoretiska problemlösningar hos J Schumpeter; *Business Cycles* (Analysis of some solutions of business cycle theoretical problems with) Schumpeter; *Business Cycles*". Unpublished seminar paper presented in the spring of 1941.
- Dahmén, E, 1941b, Review of Schumpeter J A, 1939 *Business Cycles, A Theoretical, Historical and Statistical Analysis of the Capitalist Process*. Two vols. *Statsvetenskaplig Tidskrift*, vol 44.
- Dahmén, E, 1941c, Review of Mead, E S, and Grodinsky, J, 1941, *The Ebb and Flow of Investment Values in Ekonomisk Tidskrift*, vol. 41.
- Dahmén, E, 1942a, "Ekonomisk Strukturanalys Begreppet felinvestering som konjunkturteoretiskt instrument (Economic analysis of structure The concept of Malinvestment as a business cycle theoretical instrument)". Unpublished Licentiate thesis at the University of Lund.
- Dahmén, E, 1942b, "Ekonomisk strukturanalys, Några synpunkter på den ekonomiska utvecklingens och konjunkturväxlingarnas problem", *Ekonomisk Tidskrift*, vol 44. Translated into English and printed as "Economic-Structural Analysis. Reflections on the Problem of Economic Development and Business

Cycle Fluctuations" in Carlsson B and Henriksson R G H (eds) 1991.

- Dahmén, E, 1942c, Review of Hansen, A H, 1941, *Fiscal Policy and Business Cycles in Ekonomisk Tidskrift*, vol 44.
- Dahmén, E, 1950, *Svensk industriell företagarverksamhet Kausalanalys av den industriella utvecklingen 1919-39*, two vols, IUI, Stockholm. Axel Leijonhufvud has under the sponsorship of the American Economic Association translated vol one into English as *Entrepreneurial Activity and the Development of Swedish Industry 1919-1939* Irwin, Homewood, Ill. For a background and documentation of the content of this study by Dahmén see further Carlsson B and Henriksson R G H (eds), 1991.
- Dahmén, E, 1951 (Encountering the Economic Historians. Discussion of Docent Erik Dahmén's Dissertation in the Political Economy Club, February 16, 1951). This is an English translation in Carlsson B and Henriksson R G H (eds), 1991, of the minutes taken by Åke Elmer.
- Dahmén, E, 1959, *Kapitalbildningsproblemet. Några samhällsekonomiska synpunkter* (The problem of capital formation. Some macroeconomic aspects). IUI, Stockholm. With this study Dahmén may be said to have reinstituted his work on the TME-theme.
- Dahmén, E, 1963, *Ekonomisk utveckling och politik i Finland* (Economic development and economic policy in Finland), Finlands Banks institut för ekonomisk forskning, Helsinki. This is the first of the two monographs on Finland in which Dahmén may be said to attempt a comprehensive survey that covers both the TDB-theme and the TME-theme. The second monograph appeared in 1984.
- Dahmén, E, 1968, *Sätt pris på miljö* (Put a price on the environment), SNS. This study is Dahmén's best-selling publication. It may be said to have initiated the discussion on environmental issues among Swedish economists. It has also earned him the reputation for civic-mindedness and grounded general respect for his habit of speaking his mind. The study may also be seen as another step along the TME-theme.
- Dahmén, E, 1977, Contributions to *Erfarenheter av blandekonomin* (Experiences of the mixed economy), Dahmén-symposiet 18-19 oktober 1976 on the occasion of Dahmén's 60th anniversary. Skandinaviska Enskilda Banken Stockholm. This conference volume presents Dahmén's inquiries into the TME-theme and reports on the discussion and research it provoked among Swedish economists in the midst of Sweden's first major economic crisis in the postwar period.
- Dahmén, E, and Eliasson, G (eds), 1980, *Industriell utveckling i Sverige. Teori och verklighet under ett sekel* (Industrial development in Sweden. Theory and reality during one century), IUI, Stockholm. This is a volume in honour of Marcus Wallenberg, whom Dahmén served as an economic advisor for three decades. In collaboration with Eliasson, Carlsson and other IUI researchers, Dahmén presents some preliminary results together with the methodology-

Continuity in History and Other Essays. It is reprinted in Carlsson, B, and R G H Henriksson (eds) 1991.

Glete, J, 1987, *Ägande och industriell omvandling* (Ownership and industrial transformation), SNS.

Hayek, F A, 1935, "Preiserwartungen Monetäre Störungen und Fehl-investitionen" *Nationalökonomisk Tidskrift* 73, 1935.

Kondratieff, N D, 1926, "Die lange Wellen der Konjunktur" *Archiv für Sozialwissenschaft und Sozialpolitik*, band 56:3.

Lundberg, E, 1951, "Entrepreneurial Activity and Industrial Transformation" A review of Dahmén (1950) originally in Swedish in *Ekonomisk Tidskrift* 1951. The translation was first published in *International Economic Papers* 1959 and has recently been reprinted in Carlsson, B, and Henriksson, R G H (eds) 1991.

Schumpeter, J A, 1912, *Theorie der Wirtschaftlichen Entwicklung* Leipzig; 1926 2nd ed (Revised) Münschen; 1934 Engl ed Harvard.

Schumpeter, J A, 1939, *Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process*, 2 vols, New York and London.

Schumpeter, J A, 1942, *Capitalism, Socialism and Democracy* New York.

Schön, L, 1991, "Development Blocks and Transformation Pressure in a Macro-economic Perspective – a Model of Long-term Cyclical Change" in *Skandinaviska Enskilda Banken Quarterly Review* 1991:3-4.

Swedberg, R, 1996, "Schumpeter and Sweden". Paper presented to the 6th Conference of the International Joseph A Schumpeter Society, KTH, Stockholm June 3-5 1996.

Syll, Lars Pålsson, 1996, "The Structure-Analytical Tradition in Swedish Economics". Paper presented to the 6th Conference of the International Joseph A Schumpeter Society, KTH, Stockholm June 3-5 1996

Thomas, B, "Swedish Industrial Entrepreneurship". This review of Dahmén (1950) appeared in *Economic Journal* 1951 and is reprinted in Carlsson, B, and Henriksson, R G H (eds), 1991.

Wicksell, K, 1898, *Geldzins und Güterpreise*, Jena.

Åkerman, J, 1928, *Om det ekonomiska livets rytmik* (On the rhythm of economic life), Stockholm.

Åkerman, J, 1934, *Konjunkturteoretiska problem* (Problems of business cycle theory) Lund.

Åkerman, J, 1938, *Das Problem der sozialökonomischen Synthese*, Lund.

Technology, Technique and Entrepreneurship – Industrial Dynamics in a Theoretical-Historical Perspective

ERIK DAHMÉN

Descriptions of economic advance always contain references to technological gains and to new techniques. The reader easily grasps the crucial importance of technological developments. Entrepreneurship, however, does not receive equal emphasis, or, at the very least, its role is murkier. Indeed, it is a concept whose exact content and function is harder to grasp. This is one of the several reasons why various approaches to describing and interpreting the past differ from each other in important respects. This essay largely will be devoted to the roles assigned to technology, technique and entrepreneurship, that is the dynamic elements of an economy, in the analysis of economic growth. That is, how are these concepts understood and presented in those studies that aim not just to describe, but also to explain, those macro economic developments that are usually summarized by statistical measures of "economic growth"? While the exact boundaries among various approaches to such macro economic analysis are sometimes fairly fluid, there nonetheless exists a demarcation line whose meaning and importance is well worth noting.

First, the nature of this demarcation line will be clarified by characterizing two, in principle different, approaches to macro economic analysis. After the background and origins of this difference has been explained, its implications will be specified through examples. Some of these will demonstrate the importance of how questions in political economy have been posed and answered.

The long-standing, dominant approach to macro economic analysis is based on so-called "neo-classical" price theory. The latter demonstrates how prices are formed, and equilibrium is reached, on