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**TOWARDS A GENERAL THEORY OF FINANCIAL CONTROL
FOR ORGANISATIONS**

Abstract

In this paper, a theory of accounting, control and accounting-related areas is outlined. It is a general approach to financial control for all types of organisations. It is based on a number of previous research-oriented books published over several decades and the author's specific own experiences from internal and external processes with organisations in focus. Consistency and integrative power of the ideas have been tested in relation to certain books in various fields outside the core of the subject: theatre, sociology, applied systems theory, economic history, institutional theory and economics. The general approach can be described in simple terms as follows. There are global value chains, from resources to output that are in use. These chains change with time. Uncertainty and unpredictability prevail for the present state and for possible changes; to some extent it is possible to estimate risks of the future. At any moment, each organisation has taken some limited position on a chain. Each organisation has a hierarchy which lies above operations. Over time, chains, organisations, hierarchies, output and personal functions vary. According to the approach, insights into control problems for every organisation and system can be gained by analysing relationships between global value chains and a hierarchy of one or several organisations. Time is crucial.

Key words: financial control; management control; public administration; financial entities; financial reporting; dependencies; function-driven organisations; pay-driven organisations; transfer-driven organisations; supervisory boards; mass media; auditors; natural systems; panarchy; pseudo-commercial units; inter-organisational control; long-term control; short-term effects; hierarchies; global value chains; vertical control; horizontal control; corporate governance; remote control; controllability; transparency; values-in-use; values-in-exchange; fair values; historical costing; opportunity costs; product costing; transfer pricing; local optimization; time-bound optimization; longitudinal relationships.

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BASIC IDEAS

Purposes

Many fields of the social sciences have their special approach to control problems and are, in this sense, intentionally fragmented. As a matter of fact, limitations and focuses within defined boundaries are often regarded as research virtues. Specialisation has increased. With a systems-theory view on real-world problems, it seems quite obvious that each field represents both deep insight and “disciplinary hubris”.¹

Also, various accounting-related fields are partial fragments. Basically, financial accounting is one subject and management accounting and control is another. Managing and controlling market-based companies is studied as one issue, public administration is regarded as something else. Most research studies are restricted to a very limited problem. Partly as an effect of this, there is a tendency to describe governance instruments and processes separately without relating them materially to the world they affect.² Researchers argue for certain specific concepts and objectives within a theoretical framework and let other considerations stay outside the theory and become part of the use. This is a well-known phenomenon that has become more and more important over the years.³

Often some important views are imbedded in the very limitations of a practical issue or research design. Furthermore, only certain aspects are considered – I call this partitioning. The wider the perspective, the more difficult it is to reach a firm conclusion about the design of control systems or the interpretation of a control problem. Purely logical inferences require a view on partly philosophical issues: the relationship between means of control and activities to be considered, the relationship between the interests of different groups of people, the relevance of various expressions of human needs that an organisation is to satisfy, the organisations’ way of working in that perspective. It is difficult, or even impossible, to get a solid philosophical basis for the construction or evaluation of control systems. The fundamental problems have been discussed at least since Plato and Aristotle, without any remarkable success. What deserves to be described as answers on scientific grounds, ought to reflect an awareness of these premises.

¹ The term is quoted from Holding, C.S., Gunderson Lance H. & Ludwig, Donald, *In Quest of a Theory of Adaptive Change*, chapter 1 in *Panarchy. Understanding Transformations in Human and Natural Systems*. According to them, fields like economics, ecology and institutional theory represent “partial truths”. They claim, for example, that economics concerns mostly fast moving variables and underestimates organisational patterns, that ecologists largely ignore institutional arrangements and that institutional theory considers such features largely in a static sense.

² See, for example, Scapens, Robert W. & Bromwich, Michael, *Management Accounting Research: the first decade*, Shields, Michael D., *Research in Management Accounting by North Americans in the 1990s*, and Beattie, Vivien, *Moving the financial accounting research front forward: the UK contribution*.

³ See, for example, Watts, Ross L & Zimmerman, Jerold L., *Positive Accounting Theory*, chapter 1, for a general discussion in the 1980s about this phenomenon. Nevertheless, research conclusions may be far-reaching despite narrow frameworks. For example, in a research contribution, *Financial Reporting Transparency*, Mary E. Barth and Katherine Schipper define and promote the concept of transparency with only a very limited contextual analysis.

Theory-building should include approaches whereby problem descriptions have a broader coverage and cross the borders of traditional specialisations. This is true of control-oriented social sciences in general, and the accounting-related fields are no exceptions. Dependencies between economic activities and between individuals shape basic control problems and it is often more crucial to attack them than to find solutions within each narrow frame. Connectedness in all respects has increased. Larger sets of related activities take place in larger spatial areas. Partitioning is also common in academic inquiries. Often, researchers are inclined to emphasize certain aspects of a complex problem without having a broad perspective on events. This may cause inconveniences when the underlying reality, but not the theoretical models, consists of connected phenomena.⁴

Accounting and control tools need to be discussed as devices that have many effects, observable or not, in broad and not well-defined contexts that comprise multiple areas of significance. One step in this direction is to gain an understanding of the issues of each traditional subfield in more general terms. To what extent are accounting and control problems within, for example, public and private sectors reflections of more general problems with more fundamental roots and to what extent are they exclusive for each subfield? An understanding at this level will be integrative and facilitate connections with abstract descriptions in other fields. Besides, in order to deal with more limited problems, it is important to recognize to what extent a phenomenon is specific for a certain organisation or with whom it is shared.

I intend to outline a theoretical approach of accounting, control and accounting-related areas – that is, of financial control – with the above as a background. My discussion is based on a number of previous research-oriented books published over several decades – mostly in Swedish⁵ – and my own specific experiences of internal and external processes with organisations in focus over the same period.⁶ I have tested the consistency and integrative power of my ideas in relation to books in various fields outside the core of my subject: theatre, sociology, applied systems theory, economic history, institutional theory and economics.⁷ I have also developed additional ideas through these works.

⁴ This discussion is in line with Holding, C.S., Gunderson, Lance H. & Ludwig, Donald, *In Quest of a Theory of Adaptive Change*. Their discussion on systems properties and “partial truths” includes the pronounced need of a worldview “that overcomes disconnects due to limitations of each field.”

⁵ Two works in English are Johansson, Sven-Erik & Östman, Lars, *Accounting Theory – Integrating Behaviour and Measurement*, 1995, and Östman, Lars, *The long range dynamics of financial control. The Royal Dramatic Theatre and its costs over a century*, SSE Working Paper Series in Business Administration, 2007:001.

⁶ Some main concepts and ideas of this text are clearly connected to my experiences of practical problem-solving in actual cases. A set of systems criteria that are described below was developed when I was confronted with a complicated management control design decision in a metal-work company in the mid-1970s. Around 1990, I used the concepts of vertical and horizontal control processes in order to understand control mechanisms in an energy company. In this text, they express the basic structure. Many years later, I analysed the changed conditions of a traditional insurance company. I developed ideas that are described below about the relationship between profit-oriented and non-profit organisations.

⁷ The most influential sources are Hayman, Ronald, *How to read a play*, ideas in linguistics and semiotics, Gunderson Lance H. & Holding, C.S., eds., *Panarchy. Understanding Transformations in Human and Natural Systems*, Habermas, Jürgen, *The theory of communicative action*, Ferguson, Niall, *The Ascent of Money: A Financial History of the World* and Baumol, William J. & Bowen, William G., *Performing arts – the economic dilemma: a study of problems common to theatre, opera, music and dance*.

Starting points

I have two fundamental logical prerequisites: first, each individual has his or her unique life – conditioned by biological and physical circumstances – and the possibilities of and interests in satisfying personal and family functions are varied and vary over time; and second, the earth is a unique and common settlement for human beings – conditioned by biological and physical factors that operate primarily irrespective of what views people may have on them.

To a large extent, the economic system as a whole is self-organising. However, there are many organisations with a range of roles.⁸ Every alternative that is carried out by an organisation may be related to the basic premises for personal functions and the global system, naturally most often vaguely and at a very remote distance. Dependencies and independencies between economic activities and between human beings are my analytical starting points: whether two phenomena or two subjects affect each other. These terms may have positive or negative connotations, but I refer only to relationships as such. In principle, dependencies on natural systems are also included. However, it is difficult, or even impossible, to survey many of these relationships in the short and the long term.

How, and to what extent, does a single human being affect his or her situation within these frames? Each individual has his/her own view of the dependence on highest powers of a spiritual or worldly nature, and such ideas have varied between epochs and between outlooks on life. Dependence can be tied to gods or saints, fate, royal power or various social organisations with different degrees of people's influence. Some people emphasize that human beings basically stand alone or together with a few fellows, others recognize more of a dependence on the highest powers of various kinds.

However, organisations are strong driving forces.⁹ Financial impulses from the outside and internal methods to maintain economic control are decisive for their actions. I have an instrumental view of organisations and of the constructions of financial control tools for organisations in a society. Instrumentality concerns the effects of tools on certain functions. Ultimately, the personal functions of human beings, present and future, constitute the fundamental reference point in a theory of financial control. As a key intermediate step, existing and possible functions of financial tools for organisations are most essential. Payments, financial instruments, accounting, control models, economic calculations, and related considerations – within and outside an organisation – should be discussed with regard to inner characteristics but also possible effects. From a financial control point of view, identifying relationships between activities and financial processes is a general and basic issue. How are the financial limits for activities set? What are the consequences?

I regard instrumentality as an inevitable and necessary guide line for any control system that relates resources to functions and visions. Thus, philosophically I have a pragmatic view of this issue. However, economic systems and the “lifeworld” of individuals cannot really be

⁸ In his book *The Self-Organizing Economy*, Paul Krugman discusses characteristics of economic systems but, like most other economists in their analyses, he does not at all mention organisations as phenomena. .

⁹ For a review of the re-emergence of the institutional perspective on economic systems problems in the late 20th century, see, for example, the introduction to Groenewegen, John, Pitelis, Christos & Sjöstrand, Sven-Erik, eds, *On Economic Institutions: Theory and Applications*.

separated.¹⁰ What happens in economic systems provides not only material conditions for people's lives but also has many deep repercussions in social and other dimensions in "lifeworlds" that have another rationality. When financial control instruments are introduced, the economic system is primarily affected, but dependencies for individuals in a wide sense are also affected, and therefore their "lifeworlds". The effects on people's "lifeworlds" are, in principle, relevant when a control system is fully assessed.

Time is a main aspect. It is vital to capture how control problems are handled in the immediate perspective, but so are the contexts over time to which these problems belong. The resource issues of an organisation involve a dynamic problem: so is their underlying character even if it appears in the form of financial crises on certain occasions. The prerequisites for activities are changing all the time. From a rationalistic point of view, the question is how an organisation and its members can and should consider this factor in each urgent situation.

An empirical basis is important, as well as attention to phenomena that are difficult to observe. The possibility to conceive and describe is one further aspect that is important for construction of a theory according to my approach.

The theoretical approach

My general approach can be described in simple terms as follows. There are global value chains, from resources to output that are in use. These chains change with time. Uncertainty and unpredictability prevail for the present state and for possible changes; to some extent it is possible to estimate risks of the future. At any moment, each organisation has taken some limited position on a chain. Each organisation has a hierarchy which lies above operations. Over time, chains, organisations, hierarchies, output and personal functions vary. According to my approach, insights into control problems for every organisation and system can be gained by analysing relationships between global value chains and a hierarchy of one or several organisations. Time is crucial.

Described in more elaborate terms, this theory consists of a description of an extensive course of states and events where no time-limits are imposed. At each point in time, many types of relationships exist with at least some connection to the organisation. What the description of all these relationships covers is the **latitudinal** dimension. In principle, there are no spatial limits to my description but I concentrate on the situation in a Western country like Sweden. There is also a **longitudinal** dimension – this description involves the passage of time.¹¹ In principle, there is no obvious beginning but for practical purposes I have used

¹⁰ The concept of Instrumentality is widely discussed by sociologists and philosophers. Jürgen Habermas uses the concept and also the concept of "lifeworld". Technical, economical and political systems are governed by instrumental reasoning and represent something different than "lifeworld" of individuals. However, what happens in these systems strongly affects the "lifeworld" that basically has another rationality (for example, Habermas, 1987, chapter. VIII). Within auditing and accounting, Michael Power talks about "colonization", when economic perspectives and rituals for verification take over.

¹¹ Krugman, in *The Self-Organizing Economy*, also has a longitudinal and a latitudinal perspective. He talks about self-organisation both in space and time.

the second Industrial Revolution as a starting point. With my references to Swedish experiences that means the last few decades of the 19th century.¹²

Four latitudinal areas are defined. They partly overlap, but they represent strikingly different points of view. The first concerns the functions for human beings of what is accomplished through organisations, their activities and output – functions of a personal, family and collective character are satisfied, including very vague and/or very individual functions. The second area concerns the structure of organisations and activities and of transactions and relations that various parties have with each other. Structural forces operate in and around an organisation tacitly or obviously, slowly or rapidly. Much of this can be identified only by considering the structure thoroughly. The third area covers the control systems in the sense of recurring procedures and methods that are used to relate present and future functions to resources, externally and internally. These financial control tools are important from an individual organisation's point of view but also for larger economic systems. A good many recurring procedures and methods can rather easily be perceived on a current occasion and also be described afterwards. A theory of financial control for organisations places a natural emphasis on them, and they should be viewed in the context of the three other latitudinal areas. A fourth area depicts the specific processes of individual organisations for a certain issue. Often, such processes are extremely intensive while they are going on but difficult to remember and describe in detail afterwards, and not least difficult to provide with an unambiguous context.

Each latitudinal area has its course and its own relationships with time. Time patterns differ between areas. Courses of different latitudinal areas may be sequential, occur simultaneously or be interdependent. Structure and the financial control system work together. A basic back-coupling is a profound element in a long-range perspective. Structure and financial control system at a certain point of time is a basis for every specific process in an organisation. What comes out of such a process affects functions for individuals and groups of individuals. In principle also, the structure of the entire economy and the control systems are marginally affected when individual processes in and around organisations take place.

Courses of each latitudinal area comprise relationships within global value chains, hierarchy processes and interactions between the two. I call value chain processes horizontal processes. Many chains shape a total structure of connected organisations and activities – with local, national and global components. Each organisation covers some part of a chain through its input, activities and output. Normally, its activity flow can be seen as rather stable series of events running through the organisation. Ultimately, what is accomplished in these chains provides functions for individuals or groups of individuals in various respects. For each organisation, with its part of the total horizontal chains, there is a hierarchy and a structure above operative units. Bodies of the formally highest order and all other of these units are linked together by a process, including certain procedures for decisions about the organisation and its parts. I call this a vertical process.

The pattern of transactions and relations between parties is in itself an important component of the total control system. Beyond this, particular control systems are explicitly introduced, for instance, systems of financial accounting and management control. These systems are developed in response to an existing structure, but often they will also reinforce

¹²I have explored an idea in Hayman, *How to read a play*. He writes, page 50: "In a novel or a play we have to start at the beginning and work our way to the end, which means there are two basic kinds of relationships. The *latitudinal* relationships are those that exist simultaneously at any one moment of action, while the relationships involving the passage of time are *longitudinal*."

the properties and tendencies of this structure. Prevailing structures and control systems constitute a decisive basis on the occasions when an organisation goes through specific processes regarding certain issues.

Describing the design of control systems

Financial control systems are defined as mechanisms that relate visions and functions to resources and where money is involved directly or indirectly. Ultimately, they are based on money, that is to say, widely transferable rights and obligations that presume trust in transferability and, as media of exchange, make almost all sorts of transactions possible. Control systems, with money as the fundamental element, have a broad and varied character. My descriptions of such systems cover some different and interrelated primary aspects.

How are rules related to each other? Applied rules – about decision-making, measurement, financial sources, payments, construction of financial instruments, procedures and communication – can either be legal in their nature or simply be exercised practically. The issue of how rules are related to each other is important not least in the fields of accounting measurement and financial reporting. Consistency is decisive for what the meaning of comparisons will be.

What is represented and how is this done? The contents of financial control systems can be regarded in relation to individual events that will take place or have taken place. Numbers and text are common tools of expression but not the only ones; for instance, visual means have become more and more important, even if it is difficult to show an administrative process visually. Measures may more or less represent what has actually happened or will happen in individual cases. An important long-range trend during the last century was that financial control systems represent identifiable individual circumstances to a lesser degree.

Who are the intended or actual users of a system, in what context do they use it and how do they use it? A users' perspective can be applied to a financial control system. At least since the mid-20th century, usefulness has been a keyword in academic texts about financial accounting as well as management control. When particular systems are designed, developers normally think of a target group and representation is varied with regard to usefulness and the behaviour of this group. Designers have acquired some picture of this behaviour in the specific case – they accept and adapt to it or they want actively to change it (which is common for internal systems). The evolution of systems in a broader sense may have its starting point in the procedures for how and why a customer buys a product – organisations build systems to capture and affect these procedures. There is an interaction between those system components that are partially outside the organisation and the totally internal systems.

A PERSPECTIVE ON ECONOMY AND ORGANISATIONS FROM THE POINT OF VIEW OF INDIVIDUALS

After industrial evolution and constitutional reforms in the mid-19th century, financial and political systems began to develop. Gradually, new prerequisites for economic activities led to material progress for many people and also modified functions generally. Output from organisations made it possible to improve material functions: goods and services with specific properties could be utilized as means for personal functions in a direct and general

way, irrespective of differences in social and personal context. Not least primary needs could be satisfied. Beyond material functions, there were also experiential functions of output that were closely related to social and personal contexts. Dependencies within a family diminished and were replaced by other dependencies. An adequate financial function was needed to afford improvements of material and experiential functions: the capacity to provide financial resources and ways of handling such resources.¹³

Within rather short periods in the late 19th and early 20th centuries, many industrial organisations were established or restructured, providing products and work. Financial institutions developed too, basically to handle money and risks: individuals could turn to banks and insurance companies that had often specialised in satisfying a limited function or a geographical area. Stock market trading acquired more systematic forms. A personal financial function was needed by every household as a decisive prerequisite. States and other public bodies developed. According to parliamentary democracy, each adult citizen had the vote, nationally and locally. States created systems for certain material functions and the transmittance of money. Different sides of economic activities, such as work, consumption and saving, were no longer so firmly interconnected within a family or even for an individual.¹⁴ Each employed individual had a working relation with one organisation and each family used output from many.

Work was the important financial source and it also meant experiential functions and dysfunctions for employed individuals. Within many families, women were financially dependent on income-generating husbands and restricted to experiential functions of family work. No longer was a family entirely dependent on uncertainties close to them. In several ways, uncertainty was shared with others. For those who could afford it, savings and financial deposits were a possible answer to future needs. Early and weak support from State allocation systems appeared. Thus, the conditions for time and uncertainties had changed. Economic activities were spatially spread and time horizons could be changed. Progress in material functions was made and experiential functions were basically modified. Uncertainties that originated from inadequate financial functions of organisations could cause wide disturbances. Distribution among citizens was still uneven.

During the decades of the mid-20th century, work, industry and trade became less local. Financial organisations merged but they still concentrated on special parts of financial functions and special customer groups. Commercial banks, saving banks and insurance companies operated on similar segmented markets as before – borrowing for house and home was important. In a country like Sweden, financial markets were regulated by the State and state authorities. Essentially, frameworks were national. Savings were entrusted to banks and insurance companies. States and other public bodies developed systems for further material and experiential functions, the transmittance of money and improved social security for individuals. This was a period of general growth. Families changed and professional occupations developed. More women had employed work and so tended to be less dependent financially on income-generating husbands. Functions within the public administration sphere expanded and extended, especially during the decades after the Second World War. Directly or indirectly, many citizens became dependent on public cash flows and functions,

¹³ Two sources have given me impulses for the following description. The first is Gunderson, Lance H, & Holling C.S., *Panarchy. Understanding Transformations in Human and Natural Systems*. The other is Ferguson, Niall, *The Ascent of Money: A Financial History of the World*. I am grateful to Albert Danielsson who drew my attention to a review of this book.

¹⁴ This development can be described in terms of Tönnies's concepts *Gemeinschaft* and *Gesellschaft*. These are concepts from the 19th century that have been described more recently by Asplund.

and not as much as before on a financial function that was based on their own income generation. Compared with the pre-industrial era, premises for control had now changed. Most people had a more remote and marginal influence on economic processes that meant a considerably higher material standard of living and widened experiences of output. Larger, more complicated structures were still rather manageable.

Work, industry and trade became more and more international. Material and experiential functions changed, improving in many respects. For financial systems, turning points were reached during the 1970s and 80s. A general increase in wealth during the century led to increased savings volumes on individual and collective bases. These savings were entrusted to specialists in saving funds, banks and insurance companies. For her/his financial function, each individual had a relation to financial organisations either as one separate customer or one ultimate formal principal among many in a collective. After decades of growth, many national states had emerging disturbances in their financial functions. Formal control existed for individuals both in the public and in the private sector, but forms were very remote.

For personal financial functions, the development of de-regulated and internationalized financial markets was important in the short and long term. For their own financial, material and experiential functions, individuals were dependent on the income they generated through their own work but also to a large extent on the development of asset markets for securities. Dwellings and real estate had double functions: as a home but also as an investment. Normally, this required long-term loans. Gradually, the interest costs of dwellings and real estate became increasingly important for many households, and national monetary policy also became increasingly important for them from this point of view. Double professional careers within families were more common, and the relative number of financially independent women increased, within or outside traditional nuclear families.

Towards the end of the 20th century, the transformation of economic activities had developed a rather global nature. In a way, this could be seen as one further step in a process that had already started with national transformation before or at the beginning of the century. Organisations extended their activities, especially across national borders, and sometimes they grew very big. Certain functional areas, such as the financial field and the communication field, expanded considerably. Now, large financial organisations included most products without borderlines between banks and insurance. Many new niche organisations were specialists in various subfields of finance and related areas. Different sides of economic activities, such as work, consumption and saving, were less firmly interconnected within a national frame. Patterns of influence gradually changed; often, spatial and mental distance increased from single individuals to ultimate decision bodies, both in the private sector and in the public sphere. To a greater extent, what had been produced in one country was used in another and therefore needed to be financed at a national level by other sources of income. In a more direct sense than before, the outcome of savings in one country was dependent on the economic development of companies in other countries. Larger, more complicated structures had gradually evolved, and economic processes in these structures were less manageable than previously.

The material, experiential and financial functions of human beings concern consumption in all stages of life, the need to maintain a continuous livelihood during a long period, professional achievement and participation in saving. The premises of these functions are modified through life, and even to some extent basically changed. During the professionally active years, time is scarce for many people in the immediate perspective – a great many things should be done and income can in part be affected. An attitude to the present and the future is required. After the professional years, time constraints in the immediate perspective

are not as strong or at least are different. The possibilities to affect income from work are minor.

For some material functions, output is used rather frequently and easily without contacts at moments of use between a user and the supplying organisation. In other cases, moments of use are highly infrequent and they take place without contact but perhaps not quite so easily. For certain material functions, use contacts between users and representatives of supplying organisations are pivotal. For experiential functions, context is, by definition, important. Individual and social conditions may be decisive for use value. The relative importance of functions changes during life, and it varies between individuals, cultures and epochs.

Around the year 2000, family patterns and economic functions were very heterogeneous, including financial dependency structures. Trends towards professional careers and financial independence for women had continued. Generally, long-term ties between individuals and organisations had weakened in most respects. Social experiences of economic activities for each individual were tied to each aspect and relation rather than to a coherent and long-term entirety. In addition, pre-use contacts and use contacts between users and supplying organisations in many cases had been de-personalised and made more remote through comprehensive and standardised electronic systems; in other respects, communication and action had been facilitated.

Far-reaching global structures for financial and non-financial organisations had evolved to handle the various sides of economic and financial activities. Immediate material functions had been improving in many parts of the world but primary functions were quite unsatisfactory in other parts. Improvements and uncertainties had a global context; they were both shared within larger systems than before. Interconnections mean that benefits and the burdens of uncertainties are shared by many people and units but they also mean mutual and common dependency. Larger, complicated structures decrease adaptive capability. In a country like Sweden, there were improvements and flexibility for many people but also personal vulnerability with regard to financial functions. Public administration within national boundaries had its own structurally growing problems. Uncertainties made the long-term sustainability of environmental functions genuinely unpredictable.

AN ORGANISATIONAL PERSPECTIVE – COMMON AND CONFLICTING INTERESTS

The concepts of “organisation” and “financial entity”

My definition of “organisation” concerns entities that are working continuously, not temporarily – this does not necessarily mean that they tend to be eternal. Each organisation consists of units that together have two types of tasks: handling operations directly or indirectly and handling financial issues, both on a continuous basis for this particular entity. The boundaries of an “organisation” are not self-evident. My concept is also influenced by my analytical starting points: dependencies and independencies between economic activities and between human beings. Fundamentally, an organisational entity can hardly function in isolation, standing totally by itself and disregarding its surroundings. On the contrary, there are always reciprocal relationships between an organisation and its environment, close and remote, short-term and long-term. But this is a question of degrees. Some activities have strong mutual relationships and are at the same time relatively independent of other ones,

operationally and/or financially. This is my main basis for defining the limits of an “organisation” from a financial point of view. Some degree of autonomy is required.

A horizontal series of events always has a financial side for the organisation: the level of incoming prices and costs in relation to output and prices, if any. Financial flows are attached to different parties and ambiguity is very limited. A flow is referred to each organisation, credited and debited. I label some organisations “financial entities”. These are rather independent from an activity point of view and/or a financial point of view; financial autonomy concerns their position in relation to financial sources. Some are not included in a resource allocation system of any superior principal and are autonomous in this sense. Others are somewhat autonomous, even if they receive their money from a superior principal. They have to bear the consequences of how volumes and prices develop without (full) compensation through allotment from other parties. Categorization, especially in the second respect, is a matter of degree.

Horizontal structure and a separate organisation

At one end of the activity flow of an organisation there are resource providers and at the other end there are users of output.

Resource providers are individuals or other organisations. Not least those who are involved personally in the organisation, *workers*, constitute a key group. They have reasons for holding two parallel perspectives, one as a participant among others in organisational processes and the other as an external provider who has his/her own context: what does this give me? They need a livelihood and meaning in their professional lives. *Suppliers* may develop long-term relations to an organisation, beyond conventional competition in a market. *Lenders* have, in principle, a contractual right to compensation, not a residual right. On critical occasions, their influence on an organisation may be more decisive than even that of the largest owners.

Users are other organisations or individuals, end users. Users and buyers are not necessarily identical. Thus, an organisation meets either professional buyers and users or individual human beings who are trying to satisfy material and/or experiential functions. An acceptable price – an exchange value – is potentially important for buyers and mostly also for users. Use can be long-range or temporary, urgent or dispensable. Pre-use contacts between a user and supplying organisation can be extensive or not. At moments of use, there may be no contacts or such contact is the very core of the user function. Output may be standardised or customized to suit individual users.

Borders to the surroundings of organisations are not sharp. In part, activities, functions and dysfunctions in the horizontal line do not recognize any organisational borders, and besides, they may change gradually. An end user may have a very distinct interface with a selling organisation, as is the case when s/he uses a physical product on her/his own. Or the interface is more diffuse; people of the providing organisation interact with the beneficiary. Each party has its own position against an organisation as such, including those who work there.

Despite a lack of absolute horizontal borders, most organisations, to some extent, tend to live in separate worlds. They focus on their own activities, interpreted and represented at each point of time by an inner circle or a leader. Operations are developed according to external impulses, internal mechanisms, previous experiences and views about the future. Organisations stand for continuity. They embody knowledge and identity, and they may function as centers of experience and attention. In those cases, established values will have a

self-evident weight and will affect what is being done. Sometimes, individual affiliation may even induce a feeling of deep fellowship, though perhaps only temporarily during employment.

Vertical structure and other influencing interests

Besides resource providers and users of output, there are a number of other interested parties in and around an organisation. Western economies that developed during the 19th and 20th centuries required an infrastructure of functions and organisations, not least civil laws about ownership. *General rule-makers* are public or private organisations that institute laws, prescribe standards or publish recommendations for society, including activities run by organisations and capital issues. *Organised examiners*, for example auditors, conduct regular reviews in individual organisations mainly on behalf of principals in the vertical line. *Supervisory boards* are public or private organisations that are in charge of general supervision. They have the option of taking measures when some organisation does not comply with general rules. *Operative authorities* deal with law issues of another type than general supervision, for example taxation or permissions for mergers and acquisitions. *Representatives* act on behalf of somebody who is directly affected by activities in an organisation.

Within an organisation, there are *operative units* and a hierarchy above them. *Central executives* cover the entire organisation. Activities directly under central executives are divided according to one main criterion, or a combination of several. In turn, each subunit is divided into smaller subunits on several levels. Total activities may contain a great number of dimensions that may be reflected in organisational patterns and procedures; in large organisations, complexity is unavoidable. Often, there is a *board* above central executives. Accumulated capital is available in the vertical line. *Financial principals* are at the top of the hierarchy; sometimes they appear step by step.

Some actors are important in diagonal processes, that is, they do not have their own horizontal or vertical identity but they can share perspectives in their way of handling matters. *Professional observers* view an organisation at a distance. They have roles defined by parties that are total outsiders in relation to the organisation, general rule-makers and supervisors. Here, I am thinking of analysts, journalists and academics who teach and write, for example. *Benefactors* and *sponsors* contribute money or assistance without getting a corresponding value of the organisation's normal output in return.

In many respects, interests are common for the various parties around and in an organisation. By fulfilling a function for one party, an interest for another party is also satisfied. Even a feeling of affinity may arise. In a fundamental sense, though, ambitions are often in conflict. Each individual tends to base his/her actions in a certain context on his/her own separate interests, or separate interests close to him or her. However, linking also takes place from various points of view – people try to connect different perspectives or processes. For this and other reasons, activities are structurally interconnected, both in latitudinal and longitudinal dimensions, and nowadays also on a global scale. To a high degree, economic structures have been shaped in a dynamic process of quite separate interests.

Principal relationships between vertical line and horizontal line

For some organisations, there is a basic and direct relationship between the horizontal line and the vertical line. Principals of the vertical chain want horizontal activities pursued because it is just this kind of activities that satisfies an interest or a need for a special group of people or for themselves. Government regards health care, taxation or certain cultural events as important, so financial resources are allocated to these fields. Real-estate owners want improved protection against fire, so they found a mutual insurance company. Wine peasants are associated within a producers' cooperative. People interested in local ice-hockey involve themselves in a non-profit-making club. Or they enjoy financial business life and want to be a part of it. These are function-driven organisations. For them, there is a coupling between the vertical engagement and the horizontal content in the specific case. Often, the particular connection between principals and functions means a long-term duration of relations between organisation and principals – a principal may not even find a substitute in any other organisation. At least, it is not a part of continuous choices issue by issue. Organisations of this kind may or may not face competition. Legal forms may vary.

For other organisations, relationships between the vertical line and the horizontal line are different. These are pay-driven organisations. Principals of the vertical chain may satisfy their interests through payments from horizontal activities, their ultimate aim is not to satisfy a certain function for particular beneficiaries and they are willing to consider various options in terms of activities and output. In pure cases, there is no coupling between principals of the vertical chain and beneficiaries to utilize the specific horizontal process, beyond the transfer of money. This does not mean that material, experiential and operational functions are unimportant but specific functions for specific groups are not the ultimate and primary concerns of a certain organisation. Often horizontal independence is high. Relations to sellers or buyers are not special and do not give any particular advantages or disadvantages in operations, nor any special support or binding obstacles. In this sense, these organisations are commercial units – transactions are at arm's length. Thus normally, they meet some competition, and often severe competition.

The output of pay-driven units is expected to be of value to a buyer, who is therefore willing to pay. A surplus or a deficit appears, and principals in the vertical line make dispositions in accordance with legal rules. Their financial flows and purchasing power arise either continuously from current operations or through exchange values for shares and organisational parts. They may be financially independent in the sense that they have no particular relations to financial sources: these relations are commercial too. Neither principals in the vertical line nor buyers of output have any strongly durable commitments. Major owners may stay for a long time. Alternatively, owners participate as market actors with shares on or outside the stock exchanges. Principals in the vertical line may change. The time horizon of an owner position may have any length, even an extremely short one. They exercise some influence through their holding. More or less intensely they carry out transactions with their shares.

The distinction between function-driven and pay-driven organisations is helpful, not least for complicated patterns, even if particular organisations sometimes may be difficult to classify. This is a matter of a certain organisation's relations to functions, not a matter of legal form.

Relationships between horizontal events and financial functions

For function-driven organisations, financial flows must basically be regarded in relation to certain aspects of the horizontal process. For pay-driven organisations, on the other hand, financial flows are a primary variable in their own right – in principle, surpluses or deficits can be regarded as something separate, no matter what is provided in other respects. Activity flow and the outcome of the horizontal process can be treated simply as a means to create surpluses. Needless to say, this is not necessarily the case. Many principals in the vertical process place an emphasis on horizontal events and make a trade-off between different interests.

Every organisation needs a financial function: the capacity to provide activities with financial resources and ways of managing such resources. Relationships between horizontal events and financial functions are interdependent. Resources are needed for horizontal activities. On the other hand, operations influence inflows, directly or indirectly. A decreasing allocation of resources to operations may mean that present or future operations deteriorate or become more efficient, which in turn will affect future inflows and outflows, negatively or positively from an organisation's point of view.

Various forms of uncertainties and risks are involved. Firstly, operational uncertainties are important. Variations in horizontal events are possible, including variations in cash in- and outflows, the most obvious example being shifts of ordinary commercial income-generating activities. Secondly, financial uncertainties originate from the financial position of the organisation. Possible variations in cash in- and outflows are related to the impact of the financial function and to the way in which this function works. To varying degrees, organisations are sensitive to possible horizontal variations and events and to possible measures taken in the outside financial markets and allocation systems. An organisation may have a capacity of its own to take care of financial effects of variations in both these respects. Or quite the reverse, their dependence on external markets and allocating systems may make them very sensitive to states and changes in these external systems. Thirdly, operational and financial uncertainties together are premises of horizontal actions at present and for the future.

Access to financial resources is a necessity for organisations. Conditions for their financial functions vary. Many pay-driven organisations may be financially rather independent, in the sense that their accumulated financial position is no obstacle to operative mobility. In this case, they have a relatively autonomous standing. Other pay-driven organisations still have accumulated funds as the basis of their development, but they are financially weaker and more vulnerable to variations in financial and allocating systems. For a self-sustained organisation, the financial function often means a trade-off between the need of organisational development and the financial uncertainties that are inherent in an expansive strategy. Function-driven organisations normally have financial dependence in the sense that funds are periodically and regularly transmitted from allocating units. Sometimes, they are given an essential degree of financial independence. They are, partly or entirely, dependent on funds they generate in operations with buyers that are at an arm's length relationship.

Organisations as financial entities

In continuous activities, there may be either a use-perspective on resources or an exchange-perspective. Some organisations, function-driven or pay-driven, have relatively limited

possibilities to adapt to the development of incoming prices. Their own inflows, whether operating revenues or allotted means, are not adjusted. Therefore, changing conditions make it necessary to re-consider the significance of existing activity flows. Function-driven organisations may in reality have to continue their activities within new financial limits. For pay-driven organisations there are several alternatives: to expand, to wind up or to restructure.

Pay-driven organisations need a strategic attitude to price movements in their resource markets and product markets. For some organisations, trading is not a core activity, but price-conditioned cost changes are important for how main operations are carried out and for compensatory actions. Thus, there is often an element of trading even in these cases. Possible shifts of incoming prices constitute the basis for purchasing and selling strategies. For other pay-driven organisations, pure trading of goods and services is the nature of activity flows. Values-in-exchange are in natural focus.

Within financial business areas, prices of securities and savings instruments are key variables, and so are therefore expectations about prices. Expectations, in turn, can aim at fundamentals behind the values or possible exchange values as such, whatever the reasons. The more the financial markets have developed, the more pure trading elements have appeared, that is, deals that are based on predictions and re-predictions of future values-in-exchange with various time perspectives, including very short horizons. I refer to some organisations as transfer-driven. Their activity is, directly or indirectly, based on transactions with business units and shares. They are a special form of pay-driven organisations.

Changing patterns

Value chains change over time, as do hierarchies above horizontal flows, diagonal forces and the role and functioning of particular organisations and sub-units: how dependencies and independencies are constructed, operationally and financially, and what conditions there are for the financial function of organisations. In this course of events, structure influences financial control systems, which in turn are important for how structure can be designed and work. Analytically, structure and financial control systems can be separated, but they are two interwoven elements of financial control. Structure and financial control systems vary between countries and over time, even though similar long-range phenomena sooner or later appear in different countries. The description below primarily captures developments in Sweden. Indications of time are approximate – I have tried to show the main features of states and processes.

An overview of main trends

At an early stage, pay-driven companies were managed by circles close to an owner and a family, on their conditions. People in the neighbourhood were dependent on their attitudes and financial capacity. Most sub-units within the pay-driven organisations concerned functions. Function-driven organisations were not so numerous and so large. This was also the case within the State and municipalities. They were evaluated and financed by representatives as principals.

During the 20th century, vertical structures and processes developed fundamentally. They were strengthened, both outside and within organisations. Power distribution along the vertical line varied, but generally there was a clear trend towards conditioned

decentralisation. Shorter time periods were followed up more frequently. Not only wealthy individuals but also people in general became dependent on rates of return on stock markets as a financial source. This change, implemented through institutional ownership, affected how the economy worked. Also, the vertical structure became more and more multinational for private organisations. In certain cases, owners came from various countries, group management and headquarter from another country than most of the owners, subsidiaries were located in a third and operating units in a fourth country, which might be the same as for some of the higher levels. For nations, not least in Europe, super-national levels developed in critical respects.

Structures and control systems were more and more oriented towards relating costs in one step of the horizontal flow with immediate and tangible functions in the next step. Pay-driven organisations were established wherever possible. Function-driven organisations often developed a pseudo-commercial nature. Some of them were given financial independence in the sense that their income-generating capability was decisive for activity volume. There was a general move away from function-driven units that were managed in traditional cost-based forms. Strictly identifying output, and assigning prices, rather than emphasizing common and less distinct functions, was one of the most noticeable ideas in financial control during the latter part of the 20th century. A tendency towards “commodification” evolved. For function-driven organisations too, some kind of “product” is delivered from producers to users, who are human beings or organisations and who may have a real option or not.

In the horizontal line, thus, structures and financial control systems were more and more oriented towards specific use, immediate use, target groups or at least pronounced views of target groups. The period in and around the 1970s was an exception to this development, with a heavy emphasis on union and employee perspectives. At the same time as the focus on tangible use gradually increased, the activities of many units had more distant connections to end use. To an increasing extent, horizontal flows were extended across national borders. Thus, interdependences were more complex, including being more comprehensive spatially. Technology and the internet changed patterns and distances between organisations and users. Efficient relations with an output user from an organisation’s point of view did not necessarily mean routines that favoured pre-use contacts, accessibility and contacts at the moments of use from the users’ point of view. Often, experiential functions of output required flexible human use contacts rather than the technical properties of a computerized communication system.

The early period

At an early stage within the private sphere, ownership and executive position were formally separated. Stock markets were established. Auditing was introduced. During the first decades of the 20th century, centralistic hierarchies with functional responsibilities were dominant in companies, which were rather small and manageable. Activities within the public sphere were not large. They were carried out in traditional function-driven form, with the emphasis on a vertical process.

Many functions ran parallel in rather limited organisations and needed to be coordinated towards an output – either as products to be sold in pay-driven organisations or to fulfil the aims of function-driven organisations. Certain large, private organisations operated a multinational activity; the spatial dimension with each country was then important for the structure of the organisation.

For the private sector, generally, freedom of trade was the leading idea in most respects. The bank and insurance sectors, however, were monitored by surveying authorities. State monopolies already existed or were established in certain fields, such as mail services and telecommunication, and another kind of monopoly was created for radio broadcasting.

Unions for workers in private companies and federations and a confederation of trade unions had existed since the late 19th century as a consequence of the transformation from an agricultural to an industrial society. In the beginning, they were organised with occupations as the basis. Relations with employers and their federation were hostile. After a few decades, industrial unions and federations were created; all workers at the same work place should belong to a certain union, irrespective of their occupation. In addition, some labour legislation was passed.

From the 1930s to the 1960s

Companies had grown and continued to grow, and more or less clear combinations grew up; some companies owned shares in other companies. In the Swedish case, some of these companies and combinations had an international profile. The basic structure of organisations was mainly the same as before; centralistic hierarchies with functional responsibilities were predominant. However, even though the stock market was not influential on company activities, greater attention than before was attached to external financial reporting, at least in the accounting profession. The mass media – many newspapers and radio broadcasting – devoted little interest to business and organisational life.

Despite violent controversies, relations between trade unions and employers' associations developed in a co-operative direction. In a spirit of mutual understanding and as an expression of common interests, basic agreements were reached in the 1930s. Later on, federations of unions and employers agreed on employee influence and information. The main procedures in organisations were affected only marginally by this development.

Activities within the public sphere expanded, especially during the post-war years, but not very rapidly. Function-driven units were controlled in traditional forms with an emphasis on vertical budget processes that started long before the period in question. In the post-war years, national regulation of horizontal flows in the private sector increased and State authorities were introduced to survey prices, competition and consumer rights. Markets for foreign exchange dealings and banks were regulated and controlled at the national level. Banks were obliged to invest an essential part of their capacity in government and housing bonds. A social insurance system was decided in the late 1950s with charges based on wages. For the most part, pension funds that were founded with these charges as inflow were allowed to invest in interest-bearing securities.

From the 1960s to the 1980s

Companies and combinations of companies continued to grow. They established or acquired subsidiaries abroad. Structures and financial control systems shaped the nature of groups as an organisational concept within the private sphere. Group executives and group management became the important actors. Stock market influence on organisational matters was still weak, while internal structures changed profoundly. Centralistic hierarchies with functional responsibilities were replaced by decentralisation through divisions and profit

centres, in Europe from the 1960's onwards. Thus, a financial entity often consisted of several smaller financial entities – labelled business units – which in turn contained sub-units. Vertical control and a periodical continuous pressure became the main tools at top executive levels and gradually throughout organisations.

Thus, several business units were running parallel within growing groups. Basically, they were rather independent of each other from an operational point of view, but they were dependent on the group financially. Business units could be arranged with regard to user categories, the nature of the output, geographical areas or some other important dimension. There could be some conflict between these dimensions. From an operational point of view, dependence could be difficult to avoid. This was not necessarily the intention, because strategic synergies between different business units could possibly give strength. In these cases, price mechanisms of ordinary markets served as a model for the transfer pricing of pseudo-commercial units. The need to integrate parallel functions was mainly constrained to lower levels, where operational dependence was still strong. The number and size of function-driven units began to decrease. Besides, many such units needed explicit internal customers. There was an increase in the global dimension of business both for sourcing and for marketing; production was off-shored to low-cost countries. Nevertheless, business life still had mainly a national character.

The public sector was purely national and was growing too, but no longer slowly. More and bigger function-driven organisations basically aimed at some purpose defined within organisations and by vertical principals. The increase was in many respects considerable. Various budgetary techniques were tried out without really leading to decisive long-term improvements in procedures. Normally, tax-financed units do not have the same opportunities as pay-driven units to select and to improve productivity in some real sense. For this reason alone, costs of output tended to increase continuously. For a long time, this was no decisive constraint, because organisations were in the main compensated for price changes.

Unions, federations and confederations also grew in size and importance at both national and organisational levels. This was certainly the case in the private sector, but differences over time were even more remarkable in the public sphere. Until the 1960s, instruments of union influence on organisations within the public sector were few and weak, but this situation changed step by step. Private and public sector organisations became similar in this respect. Generally speaking, laws were passed in several fields that had previously been governed by agreements between the labour market parties. One such law concerned employee influence in particular organisations and comprised rules that were more far-reaching than in the voluntary system it replaced. Employment security was the aim of another law with its origin in this period. Dismissals should be preceded by a process carried out with unions; they should occur only for certain reasons and employees should be dismissed in a certain order. Ownership in companies was debated and investigated. Should unions be owners?

Since the late 1950s, television was a spectacular instrument for information and entertainment. The number of newspapers had decreased. Business and organisational life received more attention than before but still not very extensively.

From the 1980s to the year 2000

At the end of the century, some State regulations and monopolies were abolished. Re-regulations and new authorities were introduced. Capital and stock markets were de- and re-

regulated. The banks' obligations to invest in government and housing bonds came to an end. Foreign exchange rules became much more liberal. The tax system was changed. Financial markets took on a more international character, due to changed rules and changed information technology. In fact, the entire financial sector got new working conditions and expanded. In many cases, dual relations were replaced by more developed markets for securities. In part, securitization replaced previous forms of loan arrangements between two parties. New financial organisations were founded, even though much of the previous structure of institutions initially was retained. In certain industries, State-owned monopolistic organisations were replaced by new regulations, new authorities and a number of companies that ran businesses within each field: television, radio broadcasting, telecommunication, mail services, railway traffic and the like.

The 1980s represented clearly a shift in ownership and the stock markets. Financial institutions grew in size and number, and the financial sector in a broad sense became a main instrument for resource allocation and monitoring in society. Ownership through institutions increased considerably. The vertical control line was strengthened and pressure downwards on the levels of board and group management increased. Influence from employee organisations weakened. The ambitions of employers' associations to make negotiations more decentralised and local were successful. In the end, central levels and confederations had less importance.

Internally in large, private organisations, pseudo-commercial units grew in number. Many units that were clearly interdependent operationally were regarded as profit centres. Financial mechanisms for independent companies served as a model for control systems for financially dependent business units. Later on, tendencies to increased pressure on group management coincided with an internal focus on horizontal processes. However, this was only temporary. After a time, the internal vertical dimension grew in importance again.

Diversified groups with several parallel business units became less dominant. With time, many groups concentrated on a more limited part of the value chain for each business area. In addition, many had ambitions to reach end consumers, and to do so in many countries. Customizing and low-budget standardised production were two approaches. Off-shoring for production moved on to new countries. A much larger share of functions for such organisations than before was provided by other organisations that were further away from end consumption in space, activity and time, and in many cases they were also further away from production that was connected to this consumption.

After post-war expansion, tensions between volume and financial resources within the public sphere became more visible. Scarcity of funds in relation to explicit ambitions became more and more noticeable. In Sweden, the government tried various new approaches to the allocation and control of resources. New structures and control systems were introduced with many elements similar to those within the private sector, such as commodification and pseudo-commercial techniques. Limitations of the funds that were allotted periodically constituted major disturbances and encouraged organisations to adopt activities beyond rationalizations. To a greater extent, function-driven units within the public sphere became dependent on funds they were able to generate in operations. In addition, some organisations started pay-driven sub-units parallel to the original function-driven activity. Certain functions in the public sphere were provided through a structure of organisations, one of which was function-driven and others private and pay-driven.

Re-regulation of the financial and communicative fields was a prime mover behind the courses of event during the late 20th century. In general, surveillance has expanded greatly. Many more people and bodies devote themselves to resource allocation and efficiency assessments of how other people accomplish their tasks. Many more structures have been

erected with the aim of making activities more efficient and of improving the way in which certain human needs are satisfied. Thus, handling scarcity also requires resources. To an essential extent, these activities exist because social and economic development during the 20th century meant increased wealth for large groups of people, including citizens of nations and saving collectives. The need for professional bodies to take care of their interests has increased.

Much more external attention has been attached to business and organisational life. Journalists and analysts, as almost everybody else, work within boundaries of organisations. Each presentation of a story is made to fill a function within its own specific context and is driven by story-teller forces in this particular process. Most professions have perceptions of target groups and how to satisfy them within constraints of time and costs. Descriptions by the mass media and analysts add to vertical control. They express views of particular relevance to those who are top principals of organisations formally but at a very remote distance. The mass media also have a similar role in relation to numerous end users. Many recipients within organisations are involved too. Internally, public reports could be a tool for creating meaning, understanding and motivation.

At the beginning of the 21st century

Previous trends involving separation, concentration, networking and cooperation with minor and major surrounding parties had shaped conditions for the beginning of the 21st century. Complex constellations were rather common. In horizontal processes, many parties were involved and they had, to some extent, a common interest in making an entire chain work. On the other hand, each party had its own separate benefits and uncertainties, short-term and long-term, financially and in operational terms. Within the public sector, for the most part, strict accountability in budgetary terms reinforced this structural behaviour. Pricing made it even more striking in business life. Previously, a use perspective for a long horizontal chain had been sufficient within the frames of an extensive financial unit. With the new structure, exchange values were necessary in several steps and strategic considerations within every such step.

The interplay between super-national bodies, nations and multinational organisations had developed a new pattern. International mergers and acquisitions had tended to create groups with Swedish entities as subsidiaries and a group headquarter somewhere else. The public sphere had a national context. The national state was not an ultimate control subject to the same unconditional extent as before. Control and support activities with national aims needed to be considered in the multinational context as well.

Coverage by the mass media and analysts remained intense. However, the internet induced two-way communication without gate-keeping but often with powerful post-use information routines. Potentially, all this could have a great effect on vertical and horizontal processes of organisations both in the private and the public sphere.

Ongoing processes and transformation

A present structure satisfies present functions for many people and organisations, and there are also incentives for fundamental changes that may improve, more or less radically, the quality and quantity of functions for the future, and also modify the distribution of wealth. While functions are satisfied at present, the economic system is rapidly transforming, both

nationally and globally, including structure in vertical and horizontal terms. Organisations are exposed to this development, which means opportunities and uncertainties, and often genuine uncertainty for the future. How will identified conditions move and what will be the result? What impact would different actions have? To what extent is it possible to grasp courses of decisive events even with hindsight? Organisations may make changes in their structural conditions and their financial control system, and they make certain specific decisions, given the structure and control system as they are.

For an organisation, the financial situation at any given point in time is part of a structural course that can be affected only to a limited extent by this entity. For many activities, costs rise gradually in relation to output or possible prices. Ongoing steps in the course may be conceived and described only partially. This is especially true of a turning point and what is later regarded as a temporary rise or fall. However, surpluses or costs often develop systematically, due to a number of factors outside the range of specific activities. It is common to find long, structural courses of events in which surpluses decrease or costs rise in a problematic manner. Such cost processes are important continuous driving forces for action, both in business groups that face international competition and in public sector organisations. Of course, radically new products and new technical solutions present the hardest prediction problems. Not only are fundamental issues uncertain in themselves. Predictions are also required about what other people believe, what they in turn think about the beliefs of everybody else and to what extent this will form the basis of their actions.

Analyses, information and debates about an organisation have two important conditions. The first, uncertainty and risk, is shared by everybody, even central executives.¹⁵ Normally, uncertainty is greater or at least different for external parties; in that sense there is information asymmetry. The second condition is possibilities of observation. What could be noticed about the current situation and output, where could it be observed and how could it be expressed? Some circumstances are easily captured, some get major exposure and still others can be conceived only close-up. Measurability varies. Quality differences, in a non-subjective form, can be attached only to some output, and in certain respects.

Scarcity and the availability of alternatives appear for individuals, for organisations, for nations, for large collectives that have evolved such as Western countries together or for the entire unique and global system, ultimately concerning physical and biological conditions for the earth as a settlement. Scarcity of a certain kind can change – decrease or increase: innovations can make a profound difference or, instead, resources of limited magnitude are disposed of gradually. Alternatives can be easy to find or good substitutes may be lacking. Many goal conflicts in such cases concern social relations, so they are a matter of judgement about social order and common systems. Sometimes, relations between two parties are important for both, which is a prerequisite for real reciprocity. At other times, there is no balance. A function is significant for one party, but an individual relation is not decisive for the other party. In part, laws are constructed to counteract such imbalances. However, many relationships are not basically social. Physical and biological processes go on, irrespective of human perceptions and standpoints about any relations. In all courses concerning social or natural systems, a great deal is going on without very noticeable signs. Some forces are not evident until limits have been reached; before that, they may be given only minor attention.

¹⁵ Often distinctions are made between risk, uncertainty and genuine uncertainty. I use the term “uncertainty” as a general expression for various kinds of unknown or unpredictable states, irrespective of what type of variable is concerned. When I make a distinction, “risk” refers to a future state where something specific may occur; sometimes probabilities are attached or can be attached to this.

Each interest is a potential driving force or obstacle for an organisation, of varying power and visibility. To an important extent, dependencies and underlying forces can be captured by identifying the various sub-processes that may arise around these interests, which are partially in conflict with each other, and exploring how such sub-processes are interconnected: between principals, board and central executives, the internal vertical process, the internal horizontal process, between organisation and workers, between organisation and buyers/users. Sooner or later, long-range cost processes tend to cause one interest to stand in opposition to another.

Some of those who control an organisation and its parts have direct contact with activities and direct experience of them. However, much influence is exercised at a distance. To some extent, this is natural. The role of a board, for example, is mainly to influence, without having direct and continuous contact with the activities to be controlled. Board members should contribute other perspectives than those given by people in operative units. In democracies, ultimate decision-makers – the voters – are at a considerable distance from activities, with a few personal and occasional observations of results as exceptions.

Horizontal tensions and forms of mobility

Horizontal processes contain many of the factors that are ultimately significant for everybody in his/her unique life as a social being, consumer and worker. Additionally, purely financial transactions take place in such processes. Many pivotal horizontal processes are in a state of high tensions and vertical processes set conditions. At least latently and in the course of time, interests stand in opposition to each other: financiers' opportunities to use resources in alternative ways, room for action for a continuous organisation, the output and prices offered to users, and working conditions, including remuneration. Relationships between external processes and internal processes are important; variations in direction and strength are many. They may vary over time. Shifts in surroundings, without any particular immediate connection to an individual organisation, may nevertheless form a crucial strategic impulse.

All horizontal processes have some similarities but each one also has its own profile, especially those that essentially intervene in some person's urgent functions. Organisational behaviour is important in this context. In the horizontal line, organisations act forwards and backwards. Forwards, they make offers and provide output to users and buyers. Mostly, they want output to be appreciated and, especially in the case of pay-driven organisations, to appear as competitive, that is, particular and difficult to substitute for a certain group of buyers and users. Communicative elements are user-oriented and perhaps personal, at least on the surface, while uniformity, standardisation and efficiency are essential for accomplished services as well as physical products as such. Backwards, organisations try to substitute, that is, look for opportunities to replace one resource with another and to reduce input and costs. In the horizontal line, information systems for interaction between organisations and external parties, especially customers, have changed radically. Control systems gradually develop to capture external events, views and tendencies and to influence the surrounding actors.

At the same time, each individual wants to preserve and improve capabilities from his/her point of view and to have liberty of choice. Ambitions and hopes for consumption vary with fundamental conditions. Many people have alternatives and can make choices for major and minor functions. For a majority of people in Western countries, ambitions extend much further than to primary functions. Experiential functions have had more weight in relation to

material functions. Buyers with purchasing power can take advantage of offers when new products are launched and are, in general, attracted by opportunities to substitute. For various reasons, in some parts of the world and at some stages in life, individual influence on most pivotal functions is only marginal.

As workers, most people are themselves candidates for being removed and perhaps substituted. Spatial boundaries tend to widen step by step. Professional practices of restructuring have changed accordingly. The fact that human beings are possible substitutes from a collective point of view means a decisive dependence on the surrounding entities. These circumstances shape conditions for each individual. In principle, the pace of the long- and short-term systems movements may be related to possible effects on the unique, finite lives of individuals, who have their existential prerequisites and need for mobility and influence on their own personal matters.

Central executives play a key role in vertical control processes, or at least they have a possibility to gain this role. Such managers may bridge the gap between the perspectives that financial principals represent and activity-oriented perspectives within an organisation. Upwards, a manager needs trust from vertical principals to whom the manager has a distance. S/he, and accountants, have responsibility for the preparation of reports that comply with external standards. Downwards, s/he can arrange a control process on his/her conditions. S/he will observe operative activities at a distance that is considerable in large organisations.

Principals at the top, in the private sector as well as in the public sphere, have a special mobility because they have alternative uses of money. Financiers are in a position to direct requirements placed on the activity, explicitly or implicitly, in combination with financial frameworks that are more or less clear. Each activity that needs money from the outside must be sufficiently attractive in these respects and for the users of output. Functions and visions of an organisation with a continuous activity are confronted with a need for financial resources for alternative use. Divergence between the two perspectives is intrinsically unavoidable. Decoupling between activities and the financial function can only be temporary – although it may be difficult to predict acute points of time.

HOW FUNCTIONS AND VISIONS ARE RELATED TO RESOURCES – FINANCIAL CONTROL SYSTEMS

Inherent aims of financial control systems for organisations

The whole system of interests, functions and payments which organisations are parts of may be viewed as a construction for handling economic scarcity. Financial control systems concern the ways in which functions and visions are related to resources within that structure. Structure and financial control systems are analytical concepts – no more, no less. They should be viewed together when financial control is discussed. They include forms of transactions and relations that various parties have with each other. At the society or national level, there is hardly any one individual controlling subject that is responsible for structure and control system, and this is even more obvious at the global level. To an essential extent, self-organisation takes place. At the organisational level, on the other hand, there is a controlling subject. However, the interplay between an organisation and its surrounding parties is important for internal systems. External impulses and internal control procedures, interdependently, shape systems and patterns that are vital for the ways in which functions

and visions are related to resources at the organisational level as well as at higher levels. They are instruments for dimensioning, for activity orientation and for efficiency. They emerge over time – evolutionarily step by step and through particular systems design decisions.

At early stages during the 19th century, accounting and costing systems almost only covered actual events in specific cases, and very little besides that. Extensive, integrated organisations that were financially coherent and basically centralistic were typical of the state and ambitions of business life at the beginning of the 20th century. Only a few fictional and future-oriented complements were introduced. Stimulating the survival of existing organisations was an important purpose of accounting and costing. Connections between organisations and individuals were durable and strong. Risk at company level was the focus of systems. Financial power and mobility at this level were major aspects.

Gradually, intentions shifted towards other perspectives, such as the possibility for financial principals to evaluate and government taxation. Thus, similarity and comparability became central aspects. Internally, the idea of opportunity costs was also applied to business problems but it never became essential for product-costing on a regular basis. In addition, discounting techniques for special judgements were introduced.

Main constructions in the public sector concerned function-driven and tax-financed organisations, which by definition were different from private organisations. Nevertheless, models and actual design of the early period in both sectors had some basic similarities. Organisations in the public sector were centralised and expanding. Responsibilities were structured with regard to functions. The major part of financing was coordinated into one principal's system of prioritisations. Resources were allocated at the discretion of the principal. In the course of time, budget processes contained more of a dialogue between lower units with their demands and top levels with their requirements. Operations began to become integrated, to a certain extent, with the overall activities of the principals. For a long time, the principal was financially strong enough to constitute a last resort that was not too troubled by its own absolute limitations.

In the middle of the century, the group concept got a foothold in the private sector, both in management control and financial reporting. The idea of governing groups and of reporting their income continuously to the public had then been established, not only in the USA. To some extent, such permanent organisations became centres of knowledge, experiences and identity. The survival of these groups was an important aim, even if owner perspectives were strengthened. The risks not to survive, financial power and mobility at group level were main considerations. Views on company financial structures and public financial reporting expressed this idea, but gradually, shareholder interests were given more and more weight. Still, accounting and costing systems for continuous control emphasized actual events in specific cases, but purely economic and future-oriented concepts became a more essential ingredient. At the mid-20th century, circumstantial and ceremonious procedures for long-range planning and budgeting were introduced. Pseudo-commercial techniques were used for operations, but not for financial allocation. Within the public sector, planning and budgeting systems were implemented and developed, but the basic view on organisational structure was not changed.

Towards the end of the century, organisational development broke up from these ideas, partly as a result of financial realities and considerations. In the private sector, market procedures served as a model for pseudo-commercial techniques even for financial functions. In the public sector, financial problems were growing and becoming more visible, as well as there being increased emphasis on citizens' opportunities to choose their suppliers in certain fields. Many approaches were applied: pseudo-commercial techniques, pure pay-

driven organisations as components in value chains and increased income-generation for functional units. Financial concerns at upper levels became more urgent. Vertical structures had an important shift. Decision power moved one or two steps upwards, away from direct representatives of organisations that were close to material functions and experiential functions outside the finance field. Time periods that were followed up became shorter and regular monitoring became more frequent.

At this time, planning and budgeting rituals were simplified in many ways. However, this did not mean that the *ex-ante* stage became less important. On the contrary, presentations about the future, expectations and visions gained some predominance, at the expense of descriptions of the past. Expectations and demands at upper levels were prevalent, in both the private sector and the public sector. These were pivotal in follow-up procedures, often attracting great attention in mass-media reporting. In financial markets, ideas of opportunity costs and discounting were applied on a regular, frequent basis. The financial function of an organisation was not the major concern, rather an optimal trade-off between risk and return on securities.

Financial sources and control

In many cases, output from an activity flow is received by users without a price being paid. Consequently, potential users do not make a choice where expected value-in-use is related to a value-in-exchange, a price.¹⁶ Commonness is implied in the construction: you will get this from us but we do not require anything in return. Funds are supplied through vertical allocation. They are made available by somebody who finds something in the horizontal process so essential that individual power or willingness to pay should not be decisive. In any event, each ongoing horizontal process in itself, without prices and strict vertical procedures, has some controlling effects. After all, driving forces of individuals and their interaction normally mean something for rational accomplishment. Efficiency is supported and impulses are given for modifying activity orientation.

An activity flow with prices has further control elements. An organisation designs an offer, and expected willingness and capacity to pay are decisive for product content. Potential users make a choice where expected value-in-use is related to value-in-exchange, a price, and to available alternatives. A two-way instrumentality is implied: you get a product from us, but only if you give us something we value. Efficiency and impulses for modifying activity orientation are promoted more forcefully, especially if processes are repeated period by period. In addition, prices may affect dimensions of activities. Accumulated surplus in the past set a first limit on what can be carried out.

Vertical allocation is a strong control device. Units at different levels give and receive funds. Funds are transmitted downwards or upwards. They are supplied downwards if horizontal processes are regarded as significant or instrumental in some respect and self-generated means are not on a par with this. Governmental appropriations, investments from owners in a company or allocations from group executives to divisions are typical examples. Units are drained – upwards – when what was generated at one level is made available at a higher level. Degrees of financial interconnections between vertical levels vary. Two levels in a hierarchy may be strongly integrated or rather self-sustained. One or several levels in a

¹⁶ The distinction between value-in-use and value-in-exchange is notorious and goes back at least to ancient times and Aristotle.

hierarchy are centres of transmittances, and these levels may vary over time in a particular organisation. Forms of vertical transmittance are established through explicit decisions but occasionally also through pure evolution. Without special design considerations and due to developments in sub-units, increased or decreased financial interdependence may be induced gradually between levels in a hierarchy.

Pure allowances constitute another financial source. They connect strongly to some part of an individual horizontal process. Public subsidies are allotted to organisations and people and are given irrespective of any formal vertical relation. Benefactors contribute to organisations – or individuals – without customary consideration or output from the receiver.

Resource allocation and horizontal alternatives

Vertical transmittances are dependent on how principals in the vertical line regard horizontal processes, the character of their involvement, the financial capacity that is available for them and the outlook of these processes. For some activity flows, external interests and needs are basically similar over time, but volume and form may change. For other activities, the significance of certain horizontal processes may shift continuously or abruptly. Great challenges may follow for an organisation, including new conditions in terms of activity orientation and target groups. Through methods of accumulating and transmitting capital, the horizontal outcome during one period can affect horizontal processes in the following periods. Surpluses are made directly available within a generating pay-driven unit, or funds are allocated to function-driven units based on performance in other respects.

Mainly, function-driven organisations are financed through periodical capital input. To some extent, capital may be accumulated. Connections are weak to individual users and their output. Nowadays, pseudo-pricing is common, perhaps combined with periodical input. For some function-driven organisations, opportunities for horizontal substitution are small because activities are lastingly indispensable, potentials for rationalization are relatively limited and operating revenues are only a fraction of total funds. Relationships between decreases in resources and performance are difficult to capture in a meaningful sense, including prospects and capacity for the future. An organisation and surrounding parties are exposed to uncertainties for variables that are not easily defined. Allocation is often based on some reception of needs and how these are satisfied – for example, purely verbal goals, data about the scope of activities and the expressed views of users. A fundamental issue is how allotments are related to the development of incoming prices. This determines how costs and price risks are borne at different levels in an organisational hierarchy.

In business life, principals in the vertical line may have direct intentions with function-driven units but these units are not lastingly indispensable. On the contrary, such a function-driven unit fulfils a function for a greater whole but substitutes often exist. Selection is possible in some time horizon but may have repercussions on other units. Resources are not allocated to such a function-driven unit only on the basis of the merits of the unit as self-sustained. Various forms of pseudo-pricing are common, sometimes combined with vertical transmittances.

In the public sphere, many control approaches are applied in order to get functions accomplished. Pseudo-commercial models are used, or assignments are given to pay-driven organisations that are privately owned. Normally for these suppliers, functions are satisfied to the extent that there is willingness and capacity to pay. Basically, revenues in these cases are determined by what funds the public buyer makes available, and their risks are affected by the durability of their relations to the buyer. In these cases, a complex vertical structure

stands above activities. Some parts are dependent on periodical allotments that are shaped by accounting concepts of public administration. Other parts have a direct connection to cash flows and the rate of return requirements in pay-driven organisations. Interaction between different control models becomes a key issue for the functions that are aimed at.

Pay-driven units are based on the original capital input from founders and the subsequent non-periodical input that may have been determined by special decisions. Often, the most essential source is capital accumulated through retained earnings, period by period. Financial benefit is related to individual input. Normally, individual shares represent transferable values. Basically, vertical principals of pay-driven organisations are in the business for the sake of surpluses, but of course their motives may be related to specific horizontal processes as well. The alternatives of developing or winding up can be evaluated for a unit irrespective of other units. Selection is important, as well as competitiveness.

For transfer-driven organisations, principals in the vertical line have no direct interest in a specific horizontal process, with the possible exception of markets where transfers and financial transactions are made. Their focus is basically on transfers of equities or parts. The selection of equities is a core activity. In addition, adapting organisations in order to facilitate transfers may be a main interest. Shifts in ownership may take place because transfers are possible and without any particular relation to horizontal structures for the future. Attractive media story-telling becomes blurred with acquisition processes in a narrow sense.

Distance and influence of control subjects

In many cases, large groups of individuals are the ultimate vertical power – either as citizens with voting rights in a democracy, as owners of shares in a corporation or as participants in collective saving. They are not organized and they are at a considerable distance from significant activities. Special organisations are founded to handle the interests of individuals in such cases. Thoroughly penetrated and common goals are difficult to find. As a result, the executives as well as individuals concerned have room for the interpretation of collective meaning. Each individual may express views about each limited side of the economic issue, irrespective of what other views s/he may have about this issue in other contexts.

In addition, savings institutions may be a last vertical power in cases where they have an ordinary horizontal position as supplier in relation to investors and savers as customers. Several steps are possible. Savings institutions are in turn customers of other organisations. For example, an institutional investor buys shares in private-equity-funds and may proceed with the same type of requirements as every big customer in the financial field. Events at the highest levels of the vertical structure take place in horizontal processes concerning financial organisations. Conditions are shaped in this way for organisations that are closer to many material functions and experiential functions.

Thus, organisations with allocation as a main role will have funds at their disposal, either through business transactions or transmittances that are determined. Such units act at a distance from their ultimate principals or their customers. At the same time, they act at a distance from many horizontal core processes that, in the end, may be affected. They are themselves exposed to all the general mechanisms of organisations, including the need to appear attractive to other parties. This is true of public administration, where leading representatives are also representatives of political parties. It is also true of institutional investors. If not in any other context, ambiguous goals in such organisations will be sharpened into something that is not controversial from a professional point of view, a high

return on capital, considering risk and expected inflation. Sometimes, a smooth return is talked of as a realistic aim, no matter what the uncertainties are in underlying activities. Financial goals do not prevent institutional investor from expressing further restrictions on what corporations should do – so called external governance.

Moreover, organised examiners, surveyors and professional observers have a distance to horizontal down-to-earth processes. Analyses at a distance concentrate on visible and measurable evidence that it is possible to communicate. Many units should be dealt with and compared. Analytical tools, especially with quantitative approaches, are appreciated. Some aspects are easier to quantify than others. Interpretations of crude or complicated numbers have many possible pitfalls. What seems to be an indication of improved productivity may sometimes just as well be a sign of lowered ambitions.

Needs, demands and potentials

In horizontal, vertical and diagonal processes, plans and outcome are compared with two kinds of reference levels: the needs of a unit and the potentials of a unit. Levels of need go back to external interests or the needs for the unit as such. External demands are primary. What needs to be achieved in order to satisfy essential parties, including principals, workers and those who may use output? External parties express demands with various degrees of clarity and power. Levels of potentials imply what it is possible to achieve. For function-driven organisations, what combinations of functions and costs is it possible to reach? For pay-driven organisations, what combinations of product prices, wages and surplus is it possible to reach? Historically and externally based aims are often applied in order to approximate levels of needs and potentials. Thus, rate of return requirements and levels of risk are estimated with regard to what has previously been customary. Benchmarking with values from good examples provides levels of potentials for entire organisations or sub-units.

Some interests and needs, first and foremost, are connected to financial functions and dimensions. Values-in-exchange between independent parties are crucial – for everything. Long periods of shifting price expectations may occur before a transaction is actually accomplished, but value-in-exchange at a particular moment and in a particular case is what counts, after all. For financial instruments, series of payments are the core. Amounts, risks and time are main variables. Relatively meaningful equivalent values for different points of time can be constructed, that is values of alternatives to make amounts available now or at any later point of time. In this case, time preference is relative rather than absolute. Risks are strictly connected to a separate unit. Levels of aversion vary. Alternatives are relatively easy to find, and search areas have no constraints in terms of specific interests and needs in a horizontal process. Financial principals may get a return either continuously or on individual transactions or investments. For them, with many investment opportunities, general price development is a natural reference for evaluating return, rather than prices that are of specific interest for a certain activity. They need concepts that represent general purchasing power and can provide a basis for comparisons for the past and for the future. It is not necessary to define a time perspective, but sometimes a limited period is predetermined, such as three or five years, which for example is true of private equity-firms or hedge funds.

Many interests and needs concern material functions and experiential functions in general, including values-in-use of physical products and services, the meaning of daily activities and the utilization of human and physical resources. For products and prices in a market, potential buyers base their actions on their present view on the context of the product, expected value-in-use and alternatives. For function-driven organisations, on the other hand,

vertically transmitted funds require a perception from an organisational point of view on value-in-use and alternative uses of funds. It is not always meaningful to identify equivalent values for different points of time. Certain horizontal needs are urgent, and in such cases, time preference may be absolute, rather than relative. Many function-driven units, vertically financed, meet conditions of immediate performance. Critical functions and needs also concern the future, which is especially the case for functions with a physical and biological background. Many function-driven units are challenged to be able to satisfy needs that, year after year, are basically similar and constantly urgent, perhaps also increasing in volume. Often the search for alternatives is limited to particular elements of a specific horizontal process.

For each organisation, functions and visions must take place within financial limitations that are determined either by market-driven flows, funds allocated or voluntary contributions. A lack of liquid assets constitutes the most absolute financial constraint. Legally cogent rules for items on the balance sheet and income statement, such as the rules for liquidation, in reality permit a somewhat greater scope for alternative action. For many organisations, the basis for covering financial needs and risks is their own generation of equity capital. For others, such needs are to a great extent covered by the funds allotted.

Being attractive and convincing - a necessity for a separate organisation

In a way, relations to users of output are the most basic ones. Organisations, whether pay-driven or function-driven, need to be attractive and need to convince people that they are. During the second half of the 20th century, marketing, market strategies and marketing information systems developed. How do users think, how satisfied are they and to what extent do they have perceptions on what they want? Gradually, considerable efforts have been made to identify the contexts of users and to adapt products, messages and systems to large or fragmented target groups. Products and commodified services have been developed to suit user contexts. Sometimes they are even tailor-made. Rather often, contexts as such are developed and communication with this aim may be as important as products in an original sense. Actually, for many organisations, marketing efforts of these kinds have no limits except costs. Investments in brands may be regarded in this perspective.

Moreover, the shift upwards in vertical structures has induced a need to argue and convince. Those who supported the idea of so-called corporate governance have been successful, promoting such a development in stock markets. Similar tendencies have appeared in public administration due to developed systems and an increased need to prioritize.

Mass-media processes have become a central governance and control issue. Organisations and their representatives adjust to this phenomenon partly by promoting ideas and concepts publicly, partly by developing defence strategies in case of threatening emergencies. Often, an essential part of both external and internal communication is a matter of convincing a professional observer successfully.

Relationships between resources, functions and prices

In horizontal market processes, distinguishable output from a separate organisation is identified and a price is assigned to a product that has a function outside the organisation.

Values-in-exchange of this kind are self-evident and necessary in markets with parties that are financially separated from each other. In principle, potential users have options. However, it is less and less obvious that prices can always be connected to what is core output with regard to the functions of many users. Newspapers used to be one example, IT-services provide many recent examples. Nor does output in a limited, concrete sense always play an autonomous role for a user, and providers' influence on user context may be a decisive prerequisite.

For many reasons, relatively few costs, actually fewer and fewer, are tied to a specific product. Many product items share activities and resources, which is also often an important condition for each of them. Complex cost relationships call for greater emphasis on higher levels of product hierarchies. However, pricing and inventory valuation require explicit values for low levels. The view that such values have a meaning seems to be very established among many buyers and surveyors. Actual values-in-exchange have often been the basis of accounting systems, but from the 1920s and 1930s opportunity cost and opportunity values became more common.

Purely function-driven organisations are based on the following notion. A task should be carried out. In principle, a potential user does not necessarily have a choice. This task is not symbolically reduced to separate and observable parts with a value-in-exchange at the transition from producer to user. A value-in-use arises in two steps, a fact which is not quantified. However, periodic reviews require a matching of costs with what has been accomplished, and then estimations of output are natural, and more or less well-defined.

Pseudo-commercial units and commodification have become very common, as previously noted. Strictly identifying output, and assigning prices, is needed in these cases. Values-in-exchange of a pseudo-type must be assigned to some distinguishable and observable objects. Sometimes, internal relations have other elements than transactions between two parties that are totally separated from each other, even though impressions may be different at first sight. Such elements will not be supported through internal prices.

Financial accounting concepts

Accounting measures can be interpreted as signifiers in relation to something signified. Their construction can be seen as symbols in relation to events and states outside the accounting system.¹⁷ Furthermore, accounting data have an autonomous legal and contractual role in events as such, for example as formal bases for dividend decisions and taxation. Accounting representation is fairly easy to interpret when book entries directly connect to an individual series of well-defined transactions. However, data may refer to present or future circumstances that are not an actual, specific part of a process for an individual organisation. Then, perception of processes and states and their sequences may serve as a reference point for interpreting amounts and book entries but not necessarily with an unambiguous result.

Naturally, income concepts and value concepts for financial entities originate from pay-driven organisations. Measures are based on market prices and series of payments from a certain unit's point of view. In this context, concepts can be given a meaning irrespective of functions and dysfunctions outside the organisation. Measures imply a two-way instrumentality, a lack of commonness and a limitation of the role of each unit. Information

¹⁷ The concepts of "signifier" and "signified" refer to ideas from linguistics, used later on in other academic fields, such as analyses of theatre plays. Within accounting, these concepts have been applied by MacIntosh. Ijiri uses a similar pair of concepts in *The Foundations of Accounting Measurement*, principals and surrogates.

on external effects in horizontal lines primarily serves as guidance for predictions of future payments. For function-driven units, conditions are different. However, “income”, “profit” and “value” have been commonly used names for any comprehensive financial measure. These terms can mean almost anything. Though, “income” or “profit” for function-driven organisations cannot be given a separate meaning irrespective of effects outside the organisation.

Representation of horizontal events is a key accounting issue for pay-driven activities. Observed values-in-exchange on certain occasions for resources of a specific unit have been a traditional basis. A user perspective on resources has been dominant; resources have been acquired to fulfil a function in ongoing and continuous activities. What has already happened is pivotal, but a glance at the future is also made. Maintaining existing capacity may be the aim of evaluation. Predictions of exchange values are made, for instance when accounts receivable are written down. In addition, evaluation may be based on future series of payments that are caused by existing resources. However, tying a value to each specific cooperating resource may be difficult or logically impossible.

As an alternative, “fair values” might be the idea. General market prices and market values outside an organisation can be the starting point of evaluations. Some unit-specific events have not taken place and possibly will not even take place later on. According to such an approach, values-in-exchange are gathered from other contexts than the particular case, and explicit particular aims of a resource are disregarded. A separable part of company resources is evaluated on the perception of how and to what price this resource should be traded if there was a mutual exchange between two parties. Estimated prices are booked.

Exchange perspective approaches are common, not least within the vast financial field. For many instruments of standardised and rather substitutable types, prices are quoted continuously. Managing securities, in a broad sense, and values-in-exchange are the core of business. Basically, securities are separable from each other. In that case, accounting that is based on currently possible exchange values gives a fairly good representation, in contrast to those situations when instruments are not very liquid. Then values-in-exchange exist but less frequently. Or traded instruments are less standardised. This means that a singular quoted price is more difficult to interpret as a representation in accounting. In certain cases, market prices do not exist. In those cases, instruments are evaluated by models that require assumptions about future-oriented variables, such as expected earnings, expected cash flow or volatility. Thus, there is no real state to signify at all. Measures are pure constructions based on some more or less well-defined premises.

Relationships between income concepts and horizontal events are especially problematic when resources are valued on market conditions despite the fact that they are included in a certain functional context with certain intentions. Resources have been acquired, not to be disposed of but to be combined with other resources in order to produce products that will give ongoing revenues. This way of combining resources should give something more than all the resources separately. Market evaluation is governed by the notion that separable parts would command a certain price if market relations were prevailing. Thus, evaluation is made irrespective of the particular context and intentions and of the special dependencies for resources that are distinctive features of a case. Market prices of separable parts do not mean a good representation of an ongoing process where specific transformation is in focus. Rather, it represents value development for resources in their general context. Specific processes of activities, input and output are not basically supported.

Thus, accounting based on market prices presumes hypothetical perceptions in the representation of a company involved. Some separable part of company resources could be traded between independent parties. Often no exchange takes place. Pricing conditions that

are not specifically tied to the company in question may be observed for many types of relations in more or less well-defined markets. For separate resources, a price is established for each transaction and occasion with impulses from many different contexts. Market-price accounting pinpoints separate resources and prices that are quoted at each point of time, rather than combination and transformation as such. Thus, a change perspective is an underlying factor and alternatives to current use are important. In extension, resources could be included in other contexts, contributing to various new alternatives. Ultimately, resources have many possibilities and interdependencies, and there is an endless number of gradual alternatives, though basically no alternative exists at the global level from a biological and physical point of view.

Often public income measures are a mix of components. Towards the end of the 20th century, values-in-exchange from specific events tended to be less dominant than before – more often, evaluations were based on market prices and models. One part of the background was standard setters' ideas of information usefulness. They seemed to perceive that such values served equity analyses, or should do. In turn, volumes of analyses had increased previously, due to the fact that trading with shares and companies had become an autonomous activity in business life. A change perspective on business structures and values-in-exchange had become an important element of vertical processes. Public accounting during the last decade of the 20th century captured these tendencies and promoted them. Thus, the use of resources perspective was no longer a dominant principle to the same extent as before in financial accounting.

International reporting standards have undoubtedly become very complicated from a technical point of view. They require expert knowledge far from traditional, important business competence of different kinds. Thus, a huge market for consultancy has evolved. Reporting tends to be an issue for reporting specialists, not for responsible managers and boards.

Dimensioning and orientation of separate organisations

The growth of an organisation is dependent on the nature of the horizontal flow and how the vertical process is connected to this flow.

For pay-driven and transfer-driven organisations, possible in- and outflows, their time pattern, uncertainty and risk are key variables. Growth is essential in several respects. For purely pay-driven and transfer-driven units, share value-in-exchange is significant. Growth in cash flows that are available for dividends has a strong impact on this value. In turn, such growth requires that activities are expanded and rearranged. Consequently, the development of existing business areas and the search for areas and new geographical markets are strong driving forces. Selection and pricing are two powerful mechanisms; prospects in terms of revenues and costs set limits for future development. Expansion is organic or is built on mergers and acquisitions – financial control concepts and processes in the decades around the year 2000 tended to support market transactions. For pay-driven organisations, financial capacity is based on previous values-in-exchange for input and output, surpluses in horizontal processes and attraction on vertical principals and lenders through expected surpluses. Exceptions are possible.

For purely function-driven organisations, a specific horizontal process is the starting point and aim. At each point of time, needs and demands to satisfy have a certain scope. If groups

of users increase naturally, growth may be required too, as is the case with schools and health care when the population increases. In addition, function-driven organisations may make efforts to reach new groups in new ways. Or they may try to utilize their competence in other contexts by developing new horizontal processes on pay-driven grounds. For function-driven organisations, cost targets are relative easy to determine for output in cases where technology and volume are the main determinants of costs. Targets are much less well-founded for other tasks that are difficult to define, especially general functions for an organisation as such. In those cases, targets will have the form of discretionary limits, period by period.

Focusing on output, piece by piece, was not the classical way to dimension function-driven units. Rather, the approach was to identify an activity that had some external functions outside the unit and determine what resources were needed. With such an approach, the value of some vague functions for somebody has to be judged, as well as the resources needed and the possibility and willingness to allocate such funds. Ventures into something new may be problematic for function-driven units with narrow cost limits, unless they involve rationalization or income opportunities. At the development stage, costs are incurred. After that, operations will also mean higher costs than before.

Internal objects, measures and control processes

There are many controlling subjects within a financial unit: often a board at a distance from activities, central executives that are closer to activities but still at a distance, and other managers and all employees in sub-units. Often, central executives play a key role in the design of internal systems: objects, measures and control processes. Board members, beyond this, have reason to consider their own information needs.

Objects and measures

Entire financial entities and their organisational parts are ordinary objects of financial control systems, as well as other objects that cash flows can be related to, such as output delivered, capital projects and customers. For organisational units, measures relate to points of time or periods – a year, a quarter of a year, a month and so on. Periodical amounts are calculated in advance or afterwards. Normally, a system of periodical requirements and reviews is at work. Responsibility reports in terms of income and costs are important as a basis for vertical control. In addition, control may aim at horizontal processes. Product-costing, calculations for customers, sales reports and capital-project computations represent a horizontal process.

Each organisation, at each point of time, has its combination of vertical and horizontal control instruments. In large organisations, structures may be highly complicated. Often, hierarchies are built on several important activity dimensions, not just one or two; furthermore, parallel horizontal elements are not few in number. A standpoint is needed on what dimension to prioritize in explicit systems and control processes.

Top-level executives normally make design decisions about organisation-wide information-handling systems that practically put constraints on each internal information user – despite the fact that systems per se have few technological restrictions and that two-way communication is feasible from this point of view. The early computer-based systems in the 1960s and 1970s meant that central specialist functions of an organisation were the

providers of reports from systems they had developed. Since then, user involvement has been natural and local influence on systems and use has increased dramatically. Nevertheless, vertical patterns and the special position of top-level executives have to a large extent remained, despite technological opportunities. Technologic changes have even improved possibilities of downward control, if that is what is wanted. In addition, the views of top-level representatives, especially executives, constitute prerequisites for those below who have to decide how to connect to vertical processes upwards.

Connections to external processes

A board, if any, and central executives have to consider if and how internal objects, measures and requirements should be linked to external demands. Objects as such must be chosen with this aspect in mind, possibly paying regard to what objects would facilitate external understanding and evaluation. Furthermore, measures and targets may be designed as a replica of external components. For example, there are various ways to formally consider the rate of return on equity requirements from owners.

Since the last few decades of the 20th century, many forces have induced connections between public and internal measures of companies. Mostly, public measures have been the determining factor. One expression of this development is that external periodical measures frequently became the norm for the design of internal periodic measures. Beyond this, periodical measures of a traditional kind lost some of their weight internally. Instead, value-based measures attracted more attention: calculated values of the same kind as at any evaluation of companies and shares. Such values for separable parts of organisations became more important in internal control as well. As previously noted, public measures for entire organisations have tended to be designed with an exchange perspective. They may therefore be difficult to reconcile with internal measures that should be relevant for ongoing and lasting horizontal activities.

To a varying degree, internal control systems record and react to variations in the surroundings. Not only in the private sector, processes for the evolution and design of control systems of an organisation often mean that external functional modes and tendencies are captured and built into the system. In this way, organisations not only create opportunities to satisfy immediate demand but they also tend to strengthen certain outside values, views and habits.

Requirements

For an organisation, requirements can run permanently or temporarily. They may be based on needs or potentials outside the absolute levels of legally compelling limits. Defining a measure is in itself a form of requirement. Beyond this, a level can be stated. For function-driven units, concrete and manifest cost requirements will exist parallel to more vague requirements of functions and needs. For pay-driven organisations, targets that are based on needs can be set at least with an indirect connection to the perspective of a financial principal. In some cases, financial markets induce distance between principals and organisation. In other cases, financial entities have very close and manifest relations to allocating organisations or individuals as direct financial principals. They have to consider more or less well-founded and clear declarations from these principals regarding targets for rates of return, income or costs.

Internal systems make certain connections between vertical and horizontal processes. Essentially, explicit vertical requirements have some relation to what is expressed as possible and desirable horizontally. A tangible example is product-costing techniques for recognizing resources in the horizontal line and vertical demands. Variable costing methods include only costs easily assignable to individual products. They basically exclude common capacity costs and they require targets apart from the cost calculation as such. Full costing methods include common costs and also include a component for interest on equity capital. Further components for opportunity costs may be added, which, however, is not usual in systems for continuous evaluations. Target costing can be seen as an advanced form of connections between horizontal processes and vertical processes. Cost levels are already determined at development stages, so that, later on, both buyers and financial principals will possibly be satisfied.

Linking

Different partial processes within an organisation need to be linked up. In addition, an organisation and actors in the surroundings have connections that need to be considered. Internal processes that are related to financial control consist of a number of sub-processes that involve actors in various combinations. They have no unambiguous relation to a simple hierarchy, even if, to some extent, they are based on pure formal delegation. They have horizontal and diagonal elements. Some sub-processes are manned on a representative basis. Linking sub-processes is often a difficult task, which is crucial for those who have fairly strict responsibility in a hierarchy.

Those who work in an organisation will, through employments and commitments, represent a common interest – a “we” that includes “everybody”. The perspectives of this “we” can conflict with perspectives of sub-units and of individuals that have their own genuine interests. Often, central executives and specialists make great efforts to reach vertical linking by creating common values and reinforcing this all-including “we”. Various forms of communication, systems and campaigns have been normal tools in an epoch when short-term relations and not very lasting affinities are typical. During the past few decades, this development has been one of the major changes in governance procedures.

Incentive systems with variable components provide another tool for congruence between the aims of employees and the goals of an organisation and its owners. Many variants are possible. Employees get remuneration in proportion to activity outcome in various respects, for example some earnings measure. They get shares, options or fund units, and value increases, if any, will fall to them. They get remuneration as if they had had shares or options, and value increases had fallen to them. They are invited to acquire shares or options through the employing company, and they can take advantage of increases in values-in-exchange, if any. Incentives are tied to estimated model values when actual values-in-exchange do not exist, for example for a sub-unit. Thus, incentive systems with variable components aim at making the actions of subordinates congruent with the interests of superior principals. Beyond this, potential employees at high levels that are competitive can be offered attractive working conditions and the possibility to build up private capital. For some constructions, the borderline between employee and owner may be diffuse through a two-sided role. This, in turn, concerns accounting foundations because the distinction between owners and an organisation with employees is fundamental.

Influence on basic perspectives of central executives is an important aspect of incentive systems. As a matter of fact, this is a primary purpose. Thus, central executives may

represent more or less the same financial logic as financial principals do, rather than an activity-oriented and separate logic tied to an organisation as such. Generally speaking, financial incentives have been much more decisive for both planning and running operations. However, during the last decades of the 20th century, great efforts were also made to achieve an orientation towards broader goals, particularly by means of balanced scorecards. Nevertheless, financial measures and key variables have been dominant, which has been self-evident especially in the business fields of financial transactions.

Tensions in vertical processes

Individual and collective needs and desires are the ultimate bases for the requirements placed on organisations. Outcome, on the other hand, is determined by how a certain potential is utilized. In principle, a discrepancy between the two is natural. Vertical tensions arise. Requirements from a generation of savers may conflict with working conditions for a younger generation. Or financial limits for function-driven activities set by a governmental authority may not be consistent with operational aims that are declared simultaneously.

At the highest vertical levels, needs and external interest are in focus. At the highest well-organized level, decisive premises are established. Some room for choice is available, almost at some discretion, but once premises have been settled, they will serve as rather rigid reference points for a process downwards. Income requirements that have been deduced from historical levels in stock markets or targets in cost-cutting campaigns may serve as examples. Actors at high levels are at a distance. Mobility for them concerns structural transactions and transfer-driven activities and general ideas of how control should be implemented in operational and functional units. Top-level actors are not able to develop horizontal processes in any deep sense, nor should they even try to do so normally. They can influence ongoing activities through demands on subordinated units. Operative interventions are of very general types. Top-level views may contain contradictions that appear obvious only when they come closer to operations.

A hierarchy contains various levels where room for action appears and is consumed. Mobility is most valuable at those levels that have an essential, potential impact on horizontal flows, either pro-actively or through adaptive behaviour, for core activities and relations forwards and backwards. It is not equally important at other levels. Mobility is dependent on capacity for resistance. Each level has its exposure to variations in financial development and repercussions of exogenous factors. Continuous mobility at a certain level is conditioned by how financial variations hit the unit and to what extent the unit is equipped to meet such variations. Operational consequences may vary. Capacity for resistance, for example through reserves, fulfils a purpose especially at levels where mobility has an essential impact on horizontal flows and facilitates adaptive behaviour, in both the short and the long term. At each level, people tend to regard their own reserves as motivated, but not reserves at lower levels. In accordance with this idea – and due to the shift of vertical processes upwards – group-level reserves now tend to be strongly questioned.

The nature of tensions varies with the types of connections between principals and horizontal flows. For pay-driven organisations, tensions may mean a shift of burden to other parties, for example customers, but in pure cases this could be a secondary problem for principals and a primary problem only if a series of future payments is affected. It is possible that customers may counteract. For function-driven organisations, the effect itself on the horizontal flow should be a primary concern for principals. Nevertheless, in practice the scope and character of activities may be affected, especially due to the needs of the financial

limits. Often, counteractions are weaker. Furthermore, selection is not possible to an essential extent. Tensions tend to remain and grow.

Shifts from the controllability concept to an outcome focus were one of the most decisive and multifaceted changes in financial control during the 20th century. For a long time, the controllability concept was dominant in management literature and practice: an organisation and its parts should concentrate on what can be influenced to a reasonable extent, and prevailing conditions are the obvious starting point for defining commitments, tasks imposed and risks to be borne.

The status of the controllability concept weakened towards the end of the century. An outcome focus predominated: concentrate on the outcome strived for, link it with strong rewards and sanctions, do not make the relationship between resources and outcome a primary consideration, stimulate adjustments to factors that cannot be affected, restrict what are regarded as obstacles. Several currents of opinion worked along this line. Methods for achieving goal control became common during the second half of the 20th century. Reward and bonus schedules received considerable attention, particularly since control at a distance had become an important phenomenon during the last decades of the century. According to the logic of the most intense and popular parts of the public debate, it was possible to relate guilt for deficient outcomes to actions of individual parties, and guilty individuals were preferably pointed out, regardless of controllability in its original sense. These tendencies increased towards the end of the century, at a time when interdependencies in economic life were increasing and parties that could act independently of each other were more difficult than ever to find.

Organised examiners and supervisory boards

Reviews by auditors, year by year, are important for financial control. Despite all the discussions about independence, auditor can hardly have a neutral role. Primarily, they reinforce a vertical perspective at the cost of horizontal perspectives. After ownership and management had been separated around the year 1900, auditing was introduced as a tool for owners to monitor company and central executives. Auditors pay great attention to internal control in organisations, which in practice means emphasis on hierarchies and a vertical perspective.

The question is then whether auditing work supports any particular vertical level. Fundamentally, this work is supposed to benefit high vertical levels – owners or potential owners – while real procurement and charging of costs occur at lower levels. In their marketing activities, auditing firms may be encouraged to point out other benefits than the value of review as such. At various levels, organisational representatives have certain tendencies to regard auditing as a tool for their own information needs. In actual fact, the contents of the structure and systems that auditors are obliged to review influence what vertical level they support. The general shift upwards during the past few decades has meant a gradual change. During the first years of the 21st century, auditors have tended to support higher vertical levels than before, when the survival of organisations was a more important aim of systems.

According to professional perceptions, statements in auditor's report are the main output of auditing work. Conduct should comply with rules of reviews and communication that are reasonably well defined. Neither surveillance nor reactions are continuous. Despite interaction before publishing, it is preparers that are responsible for financial statements, not auditors. Auditors' public comments, if any, are expressed in their own report. According to

other views on auditing, mainly outside the profession, the role includes important elements of approval and guarantee. Thus, there is a gap between professional perceptions and many perceptions in the surroundings. Basically, trust for the auditing profession is connected to images that in turn reflect stories told about actual events. Generally speaking, risks of sanctions are obvious. They are dependent on how work has been conducted not only in relation to professional norms but also in relation to surrounding expectations. As a consequence, extended documentation has become a part of individual reviews.

Auditors have to consider whether an organisation complies with compelling norms, especially reporting principles. Nowadays, both rules and business transactions are complicated. Moreover, auditors have to take a position on valuations that are based on presumptions about the future. Looking at past events is not sufficient. Thus, there are zones of possibilities for judgements of an auditor. They are made at a distance. When a relation between auditors and organisations extends over time, auditors acquire a capacity to argue with executives on a more symmetrical basis in terms of insights into activities.

Besides organised examiners, supervising boards have regular duties. These organisations are part of public administration or private institutions with power to determine sanctions in a wide sense, not necessarily with direct reference to certain rules of law. Often, they have to judge whether organisations have complied with rather general system rules or not. In case of deviations, another type of norm defines when and how sanctions should be imposed. Overall supervision of financial institutions is important as well as the supervision of financial-reporting compliance for every kind of business groups. For supervising bodies as well, distance is an issue, normally greater than for an auditor. A thorough basis for decision-making is required, especially about future-oriented judgements. Superficial descriptions close to the content of expressed norms tend to be a risk. International capital markets make surveillance systems extraordinarily complex.

On certain occasions, examinations and supervision are starting points for purely legal cases. The outcome may then be affected by how descriptions and legal norm are connected to each other. Two approaches can be identified. According to one approach, descriptions as such are strongly influenced by legal norms that comprise statements at an abstract and high level about acceptable systems norms and possible sanctions. According to the other approach, descriptions or counter-arguments are influenced by an actual logic of activities in the organisation concerned but, in the end, norms will be fully applied. Thus, legal procedures will produce simple descriptions or more complicated ones that are closer to the logic of activities. In both cases, strictly legal judgement is not sufficient. Legal responsibility tends to converge towards individuals that, on the one hand, have had some room for action in an organisation and on the other hand, at the same time, have conducted some concrete acts within this frame. They may, for example, have signed a paper or unquestionably participated in a tangible decision.

Professional story-telling

The mass media play a key role for horizontal as well as vertical processes. Journalists and advisors of various kinds are important regarding the use of output – sometimes they affect the context of output and often the opinions of individual users and potential users. Those who review theatre productions and those who interpret the latest trends or give advice on savings products may have a considerable influence. The mass media are active in vertical processes too. Often they assume a role as representatives of individuals that formally have a

position at a high vertical level without being able to express an influential opinion or find desirable information.

According to one view, the traditional mass media are a subordinate but demanding servant in the public arena. Their essential task is monitoring those in power and providing the public with valuable information. What is a problem for the mass media is also a problem for society. They fulfil an essential gate-keeping function. The mass media are needed to counteract tendencies towards incongruence between the acts of those in power and the well-being of people in general. According to other views, however, the mass media are driven by interests and forces in professions and organisations mainly in a similar way most professionals are. The mass media play a role as subject in an eternal action drama: chasing attention among potential receivers of information flows that are more and more fragmented. Gate-keeping tends to be an obstacle for information flows that do not suit professional interests

The mass media are at a distance from events and organisations to be depicted and, with constraints in terms of time and costs, they should tell a story one step further for viewers, listeners and readers that may be accessible at an even greater distance. The pictures of events received by ultimate recipients depend on their pre-views, constructed impressions and transformations thereof. Ambiguous circumstances must be reduced by a mass medium to something more unambiguous that is easy to communicate in order to function and attract attention. Often, high vertical levels are in focus. These are relatively easy to observe and, moreover, relatively well-known actors and positions are involved. Internal processes are described most superficially, often for very short periods of time. As a consequence, so-called scandals are depicted with a rather uncomplicated view on events, which is partly due to the fact that news coverage is extensive at early moments when much still remains to be investigated.

Various kinds of media – TV, radio, morning papers, evening papers, business journals and sites on the internet – have different profiles in terms of content, expressions and recipients. Some give visual and phonetic fragments that are almost dramatised. Others have greater space, in terms of texts or audiovisual means, and maybe ambitions to treat subjects in a more penetrating and neutral way, but often they are able to convey only a few selected main thoughts within complicated areas. Normally, the media that have professionally defined target groups limit themselves to rather strict and professional frames. Some media are oriented toward sensationalism. Thus, recipients create a coherent picture that is based on all these fragments. In turn, this is important for what views are developed in societies and for how economic functions work and develop. Structures of internet flows, and other conditions for gate-keeping, provide a basically different basis for many vertical and horizontal control processes in the future.

A tendency towards instrumentalism

Ultimately, control systems should be viewed in relation to the material and experiential functions of people, the operational functions of organisations, finance functions and various external functions of larger systems. The basic character of these functions is vague and mostly difficult to operationalise. However, the impact of control systems on these functions is conceptually essential. It represents intentions and effects of a first order. Underlying conflicts of interest and views are common, which is reinforced by the fact that various interests of a certain human being are split between many organisations in a non-coherent way. Distributional conflicts and ethical dilemmas are unavoidable.

Introducing money into societies meant a dramatic change in possible forms of allocation: a new albeit very crude instrument. Organisations and professionals made instruments develop, which improved allocation and follow-up processes remarkably. However, instruments also tended to have less contact with the original intents and effects of the first order. They could fulfill a mission of that order but, in addition, they tended to become ends in themselves. Financial control system in the early 21st century can be regarded from this point of view.

Rules for measuring, for decision-making and for financial constructions are developed. They tend to be ends in themselves, even when they are not legally cogent. They represent intentions and effects of a second order. Accounting measurement is one example. Achieving the numbers measured may be the decisive factor, rather than objectives in any deeper sense. “What gets measured gets done” – fortunately and unfortunately. It is almost always possible to count – conceptual meaning, however, is another matter. Here, too, lies a dilemma. Those factors that are fundamental but not meaningfully operationalised are easily neglected in favour of peripheral factors that are quantified. Efforts to satisfy the demands of interested parties can extend so far that intentions are not achieved, precisely for that reason. In practice, certain institutions reinforce second-order intentions and effects, for example institutes for credit rating, customer-satisfaction indices, employee-attitudes scaling and various ranking lists.

The first two orders may be difficult to apply. Especially in those cases, methods and processes, as such, can also become ends in themselves or at least be of prime importance. Thus, they represent a third order of intentions and effects: how to certify certain states, how to determine auditor independence, how to measure customer satisfaction or political opinions, how to arrange contacts between the mass media and organisations. We cannot do more than this – we have applied procedures in the way we should. Organisations develop competence for managing such processes. An organisation that is highly sensitive to external demands may even develop, as its decisive competence, an ability to handle the communication process, as such, in which organisational performance meets external interests. Organisations that are devoted to third-order intentions and effects, or dependent on them, have become very common: consultancy firms, certification institutes, boards of governance structures and hedge funds. All these organisations, again, – at a remarkable distance from ultimate horizontal processes – have their separate self-interest and effects that are more or less valuable in a wider context.

The very existence of processes, and processes as such, may be a main concern, beyond their actual use as instruments for first and second orders. Thus, a fourth order of intentions and effects is established. References are made to the fact that there is a process to talk, communicate and convince, almost irrespective of background and particular effects. Moreover, those who are familiar with processes in certain fields have a very strong focus on specific procedures. To a great extent, professional knowledge and identity is related to certain views about this. Sometimes, such values are the main ingredients of story-telling structures.

I regard the mass-media processes as so decisive that I identify a fifth order of intentions and effects. What would things look like in a mass-media perspective? Some professions are establishing processes from that point of view. Symbioses of opinions become common. Parties benefit from sharing each other’s opinions, or at least sharing the interest of the fourth-order intentions and effects. The mass media represent a form of external control in addition to internal control systems that are applied within organisations. It is reasonable to think that public dramas stimulate extensions of expensive rituals and formal systems in society and organisations. Both political and commercial organisations can go a long way in

this direction. Mass-media output has an immediate use value for consumers looking for entertainment, as a part of their lives separately from everything else. Obviously, this aspect of public information has become more and more important.

SPECIFIC HANDLING PROCESSES AND TIME

At the organisational level, subjects consider and interact with other units and individuals, controlling their own activities. Measures are taken with short- and long-term consequences for the organisation and its surroundings.

Long-term development of structure and control systems

The basic condition for each handling process is the structure and control system on each occasion. Financial realities and ambitions were undoubtedly driving forces of long-term developments in structure and control systems during the 20th century. Many similar tendencies, albeit with a certain shift in time, can be found in business corporations, public administration and non-profit organisations in the private field. Financially-driven restructuring processes were common in all fields, making organisations less permanent. In public sphere, this was a matter of handling specific functions within the frames that taxes allowed; basically, expressed aims were not changed or were even sharpened.

In business life, changes in forms were profound. The shift of influence upwards in vertical processes led to an emphasis on volatile security prices, expectations and predictions of exchange values. Ideas for optimizing within separate and defined formal boundaries were strongly established. Relevant risk was related to these ideas, not to the survival of individual organisations. This became true for many non-financial companies and mostly for the growing number of financial organisations. All these organisations have their own separate risk, but some risks are shared with other organisations through many interconnections. For many of them, and most obviously for transfer-driven companies, expectations and exchange values are of crucial importance for mobility. Volatility is potentially strong, due to processes for public expectations and trading conditions and is not necessarily related to fundamental states. In rising markets, positive expectations make it natural to gain from optimizing with a certain view on risks and other traditional driving forces in business. At the same time, potential fluctuations in exchange values and public expectations expose financial institutions to the risks of sudden decline and immobility.

Thus, expectations, potentially volatile values-in-exchange of shares and risks that are related to shares became the foundation of impacts on companies. The risks not to survive, financial power and mobility at group level were no longer a main consideration. For non-financial activities, both public financial reporting and views on group financial structures expressed this development. Capital structures should be optimized, not targeted with regard to group and company survival. Explicitly and implicitly, the importance of groups in the previous meaning decreased. In addition, the identity of organisations changed and was split up. Organisations as such could have a turbulent life, while brands and identity went another and separate way.

A few decades ago, theoretical concepts like “a nexus of contract” had appeared as detached labels of a living organ. Later on, they seemed fairly descriptive. Ties, backwards and forwards, were less strong and durable, including personal ties. Operational interdependencies within group were less important. With regard to transfer opportunities, the aim could even be to avoid them. Many organisations narrowed their operations, though

sometimes on a broader geographical scale, and each activity was more directly connected to separate financial conditions. In developed networks, the way of relating visions and ideas to resources is different from that for hierarchies. Lateral coordination is required; basically, decentralisation in an established hierarchy is not possible. Each unit has to play its role in the network and, at the same time, those who have mobility at their disposal may exercise strategies of a good value-in-exchange.

The surrounding world

Basically, the needs of many functions remain rather unaltered in society. New functions are added. Other needs and wishes decline. Some functions can be fulfilled in new ways. Thus, patterns of varying importance are changing. In part, demands are profoundly conditioned by what is being offered. Large and small innovations are introduced in terms of both output and production technology; productivity tends to increase in many fields. In particular, technological breakthroughs may have considerable effects in many respects.

Each organisation needs to satisfy current functions and faces the challenge of developing: to utilize observable tendencies and, very exceptionally, to be a leading actor for general developments in society. To an essential degree, external processes of importance change in a rather tacit way. User contexts are transformed so that the output of a certain organisation gradually gets a different role, for example when technological or social changes take place. General increases in customer focus may restructure demands, and, consequently, all the required competences are no longer at the disposal of a certain organisation. The prerequisites of resource provision can change continuously or instantaneously, for example when wages, inflationary power or currency values reach new levels. An organisation may be affected by an increase in vertical pressures from above for other organisations with whom they are interacting.

Activities of a certain organisation are conditioned by vertical and horizontal processes for other organisations both distant and near, and also by how these processes change. Requirements at the vertical top in various countries tend to level out. Wage formation and market competition cover extensive geographical areas. Pay-driven organisations have the option of selecting business areas and geographical areas. The effects on function-driven organisations are different. There is a real long-term challenge for all vertical actors that are concerned about certain aspects of a horizontal process in a certain geographical area. In particular, this is a vital problem for tax-financed and unavoidable needs, where costs of each achievement tend to rise automatically over time.

Ex-ante stage, conduct and reporting

During a period of conduct, various activities within an organisation are carried out and immediate functions are fulfilled, or are close to being fulfilled. In advance, a certain period is considered in planning, budgeting, stock-price setting and so on. The outcome is reported step by step. As a result, what has happened during a period of conduct has further effects in an ex-post stage.

At the ex-ante stage, an organisation relates vertical demands to plans for horizontal activities. This includes decisive strategic analysis or only a superficial observation about what is going on. The shifts upwards in hierarchies have meant an increased emphasis on expressed ambitions and intentions, not least in public communication. In stock markets, ex-

ante evaluations and re-valuations of future development attract considerable attention. Often predictions are mere extrapolations of past development, but sometimes they have solid foundations of their own. Furthermore, stock prices can be determined through rather pure trading elements, where volumes on certain occasions are based on predictions of values-in-exchange in the short and long term.

Requirements and expectations follow one another in a series before the conduct. One of the main functions of continuous information is to provide data enabling decision-makers to cope with the uncertainty that gradually diminishes as periods, initially distant in the future, come closer and closer to reality. Many of the most intense moments are just before the conduct period. Realisable plans, within financial frames, must be clarified. New products and development projects reach new stages just before launching. They are close enough to be considered in the stock market, and they are realistic enough to constitute assets according to accounting conventions.

Of course, conduct is a very tangible matter for organisation and workers but, from the financial principals' point of view, events could rather be regarded as a confirmation of expectations, and, exceptionally, as an impulse to take certain actions when expectations are not met. Nevertheless, formal reporting afterwards is extensive. In the majority of cases, relationships between efforts and costs of reporting on the one hand and utility on the other hand can be questioned. When an outcome is strongly unaccepted, past periods will attract far-reaching attention in the public forms described above. Exaggerations and imperfections of the individual case tend to be in focus, rather than fundamental issues and behaviour that are common for many cases.

The topical perspective and the fundamental perspective

Almost constantly, fundamentals justify the question of how an organisation should view long-term opportunities and requirements. Ultimately, room for action is at stake. The timing and magnitude of actions call for a standpoint. Generally speaking, two conflicting views with almost moral dimensions may be propounded. The first says that economic actions cannot wait – those who cut powerfully and early are the clever ones. Besides, it may be a good idea to take an extra step when insights about a crisis are established. According to the alternative view, it is a virtue not to allow plans to be constrained by financial aspects that may become urgent only later on. The ideal is to extend ambitions so that financial capacity is clearly strained and to give financial indicators a very broad context. What is the wisest line – and how far should one go?

It is difficult to get a complete score of the state of activities. An assessment cannot be based merely on what is currently visible. Other variables to be captured are the ability to make choices in the future and exposure to uncertainty. Efficiency and productivity are vital concepts, but they are often extraordinarily difficult to depict with a sufficient range of nuances. They can be viewed either in terms of external output or with regard to the way in which organisations function in their entirety. Many resources can be quantified rather easily, while it is often hardly meaningful to calculate what is achieved, especially not in financial terms. Nor can final results in some cases be given a meaning independent of the resources used.

Financial problems become visible when there is a risk that certain financial limits will be exceeded. Information tends to be regarded as a kind of reality in itself. If so, it is interpreted not merely as one representation of processes and states. Formulated in terms of an individual occasion, problems that are identified often rest on narrow grounds in relation to

fundamental financial needs. Evaluations and actions may possibly focus on marginal changes or expressed expectations, for example in the form of budgetary values or implicit stock market variables, rather than absolute amounts and entireties. An impression of an immediate crisis may emerge in some cases but not in others, without any important fundamental differences. To some extent, “financial crises” are not problems in the same absolute sense from one occasion to another.

An organisation may create room for action either through a solid financial position or through a manifest ability to master current financial emergencies. Strong processes centred on topical circumstances determine many actions, both externally and internally. Each evaluation appears in the context of immediate observations and comparisons. The perceived character of the occasion plays an important role for process atmosphere, for the formulation of a problem picture and for measures taken. Reference points inevitably differ from those that may seem natural in the light of a pattern of events constructed at a much later date. The starting point for a series of numbers is particularly decisive.

Continuous measuring points have become increasingly frequent, and the intensity of actions has also increased. More actions are initiated, with repercussions far ahead in the future. In order to achieve congruence between activities and financial limits, a small set of steps is primarily considered on each occasion. The handling of certain demarcated variables becomes a determining factor. Financial limits tend to result in a temporary one-sidedness in actions, depending on what is currently considered movable and influential with sufficient potential. Fundamental issues, however, are extensive and complicated, especially in relation to the narrow problem pictures presented in the short-term reports that are an essential driving force in the management process. A break-through may possibly wait around the corner. For many organisations, however, problems are not temporary, nor are they solved by single actions when they become visible. It is in the nature of things that most actions only have, at best, a temporary impact on the financial situation. Fundamental cost processes continue and it is mostly a question of time before financial limits are again exceeded. Actions take place against a background of demarcated perspectives for activities and financial matters, rather than after analyses of connections in any deeper sense. Powerfulness is evident and based on the strong logic of control systems. A basic question is whether those systems promote exchange perspectives or use perspectives.

Dynamics of the re-orientation of organisations

The re-orientation of an organisation takes place with uncertainty as a main condition. It can be intentional, in the sense that processes start with the manifestation of a strategic will, founded on some financial basis; “core activities” are conceived in a new way, extended or narrowed. An explicit ambition is present to change relationships with one or more surrounding parties, with their separate interests. Activity extensions are changed: the number of parallel activity flows of a financial unit increases or decreases, or alternatively, more or fewer activity elements are integrated, forwards or backwards. What is done within the unit afterwards can have a different weight to others in a larger system. Experiences accumulated and institutional working modes can be more or less pivotal in relation to external activity elements or to individuals that primarily care about their own identity.

All shifts in a unit’s function in relation to outside interests create new conditions for the dynamics of the larger system: where the driving forces are, where ideas grow up, from whose perspective they are evaluated. On whose conditions does the process operate: through forces inside or outside the individual organisation or through interplay with other

parties? Shifts can fundamentally affect the working mode of an organisation in the long run. In what respects does it take initiatives and in what respects does it adapt to moves by other parties? What are the impulses and with whom does it interact? In what way are certain potential employees attracted and others repelled? Thus, action capabilities are also affected. Dependence on external circumstances, financial and operational, is crucial for the individual unit. The narrower and stricter the framework, the less there is opportunity to play a leading and flexible role. Borderlines in the financial respect are important, in both the short and the long term. Financial functions can be handled either on a self-sustained basis or through being a part of a larger coordinated whole that either promotes the development of the particular unit or not.

A shift in one unit's relationship with other parties along horizontal or vertical lines may gradually appear, and may, initially, not even be easy to observe. Such a shift can be due to long-range changes in the surroundings and in ongoing actions that are possible within financial limits. Cost processes tend to lead to room for action of a permanent organisation standing in opposition to other interests, such as the financial principals' opportunities to use resources in alternative ways, the output and prices offered to users and working conditions, including remuneration. Economic actions become less and less neutral. The interest in and the ability to see problems lurking around the corner vary. For some of those who defend an organisation on the basis of a special interest and special knowledge, it may be natural to see approaching problems and wonder what actual roles are emerging under new conditions. For decision-makers and observers with other ties, there is less reason to consider what functions could be fulfilled in a future society. For those who are assigned to express demands at a distance, without links with internal core processes, such aspects weigh rather lightly in comparison with the more obvious need to reduce costs.

Often in resource discussions, conflicting and partly implicit ideas clash over what ambitions are consistent, what should be aimed for and what must, unfortunately, be abandoned. The opinions of various parties as to what should be given priority are governed by mental models that focus either on the actual working mode in an organisation or on a general and externally oriented view of functions and possibilities. Ways of achieving major cost advantages are proposed, and reference is made to financial necessity or to other factors. This may result in high priority for some external requirements, low priority for others, new de facto restrictions on activities or changes in working modes within the organisation.

Each narrowed strategy causes particular risks in terms of the deteriorations of the long-range capabilities of an organisation and its position in relation to surrounding parties. No one can know for sure what the society of the future will look like, and what functions and ideals would then prevail. What an organisation can offer later on should comply with functions that users, financiers and cooperating parties want at that point of time. This determines long-term attractiveness, vertically and horizontally.

A more common set of impulses tends to hit many organisations, sometimes in a rather one-dimensional manner. When more people act more often in response to similar signals via similar processes, there are new prerequisites to establish an organisation of a special nature which can be justified as an independent unit and as a provider of output that is attractive and different from what other organisations achieve. In such processes, figures on one occasion may give a temporary picture in comparison with a long-term view. Elements of rhetoric are manifold. All this tends to be found in topical actions and strategic transformation, even in cases when long-term developments of revenues and costs are on their way.

Effects of organisational handling

Vertical and horizontal processes tend chiefly to promote two sorts of conformities. Firstly, organisations are tempted to carry out what gets a response from a strong and large enough number of users. In that respect, they are not unaffected by the current spirit of the times as expressed, for example, by professional observers. Secondly, organisations are drawn towards what satisfies the requirements of superior levels in hierarchies. There is significant system support for this attitude. Periodically, and in certain organisations, employee influence is strong.

Often, organisational handling can be described as local optimization. Determination is strong within latitudinal boundaries. Moreover, handling may be time bound. Longitudinal boundaries play a role, tending to reinforce determination effects. However, areas affected, outside and inside an organisation, contain not only rapid and visible variables but also slow variables whose signs are less visible and more ambiguous in the course of events. To some extent, it is not known what areas are affected and what character they have; this is truly uncertain. Physical and biological processes are continuously running irrespective of whether they are sufficiently identified or not and irrespective of what the human views are. As I use the terms, local optimization is different from sub-optimization, which requires a defined entirety with some form of goal function. Such conditions are often not prevalent.

Obviously, control systems affect important states inside and outside an existing organisation. Such connections may be conceived logically, but they are often difficult to observe empirically, especially at a distance. Actions take place against a background of constraining perspectives for activities and financial matters, rather than after analyses of connections in any deeper sense. Powerfulness is evident and based on the strong logic of control systems, not least for vertical requirements from above. Often there is only circumstantial evidence that financial targets affect activities.

Many savings result in rationalisation: the resources decline in relation to the output achieved and the functions supplied, without any deterioration. This is already controversial when it raises issues about working conditions and conflicts of interest. Furthermore, in most cases, both functions and costs change simultaneously. Even afterwards, it is often difficult to identify the impact on functions either in the short or in the long term. The role of actions taken may be unclear in a broader context. In the course of events, it is difficult to envisage unambiguous empirical links between distinct marginal saving requirements in a short-term perspective and the gradual effects on total activities. To a large extent, it is a question of logical interpretation: the consistency of various ambitions, what core processes and knowledge bases are decisive, how they are affected and how future opportunities are related to all these factors. When assessing future development, there is some room for everybody's own logic, more or less deeply rooted in the specifics of the individual case. The balance between now and then is critical when choosing actions.

Many professional organs act at a distance from ultimate activities and without close links with core processes that may be interrupted or destroyed as a result of a powerful impulse, for example requirements that conclude with cut-backs. In this sense, activities are hit somewhat at random by distinct requirements that are formulated at a distance. It is a kind of a shot in the dark, a kind of "principal's hazard", to connect to the language of prevailing economic theories. This is especially serious if core processes which are irreversible are affected. A strong outcome focus, combined with scarce resources, can lead to a certain lack of substance in strategies. Statements suitable for communication take over.

Judged in a wide perspective, unambiguously valuable features of strict hierarchic discipline decline: Was it good or bad that somebody carried out a risky project in which

procedures and figures deviated from the required norms at the time, but where the outcome turned out to be decisive for an organisation in a 50-year perspective? Was it good or bad that somebody fulfilled every temporary demand and, as a result, let things stay the way they were? In both business life and public administration, long-term favourable processes have not been all that uncommon in cases where regular and formal control systems have been out of order.

Positions of interest cannot be disregarded, nor the issue of equality. The issue of immediate functions for many people cannot be reduced to the aspect that many people do not like change. The decisive aspect for many parties is what happens to the functions that ultimately have to be satisfied. Will they deteriorate gradually and, if so, in what respect? Sometimes this seems very tangible and negative for an individual user, as when a physical product does not work or a service is considered unsatisfactory. Sometimes, the level of risk increases, without this becoming evident. Deterioration is especially problematic for collective functions, including effects on the physical and biological state of the earth.

PRESENT FUNCTIONS AND TRANSFORMATION – VIEWS ON FINANCIAL CONTROL SYSTEMS

Control systems that relate functions and visions to resources basically influence immediate activities and experiences. In addition, they affect transformation for the future: the ability to fulfil functions, deal with novelties, escape dysfunctions and adapt to disturbances. Control systems develop over time. Structure and control systems have always been changing, either through evolution or as a result of specific design decisions, and they are still changing. What is going on during the first decade of the 21st century can be regarded as a further step in a long-term economic process of structure, control systems and specific activities. Below, I will discuss the state of financial control systems from this angle.

Near and future functions

By their operations, organisations satisfy certain material and experiential functions of individuals immediately or almost immediately, some of them very urgent. The need for immediate functions is one obvious and vital area of significance. Other such areas include what resources are used and how equitably resources and output are spread. Possible future functions and dysfunctions are also at stake for organisations and ultimately for human beings.

Horizontally, a certain organisation has two-way relationships over time. To what extent, and how, is an organisation able to influence horizontal states and changes externally? What horizontal states and changes outside will have a determining effect on the organisation? An organisation meets individuals and other organisations backwards and forwards. They all have intentions and foresight. The horizontal position of an organisation in relation to these individuals and other organisations constitutes operational dependencies and uncertainties. The activities of one specific unit may be narrow or wide in a total value chain. This position is very important for the possibility of fulfilling functions that will be demanded in the future. Horizontal relations include processes in which organisations, individuals and nature are involved. Relationships are difficult to grasp. Operating modes and relationships are

uncertain in many respects. Nature has no known intentionality and no foresight. States of nature concern multiple interrelated areas of significance rather than a single area.¹⁸

Thus, actions today concern the conditions and outlook for horizontal activity in the future – for a single organisation and for larger systems, including natural resources. Structures and incentives are constructed to improve existing functions and their efficiency. Novelties are stimulated. But there is also vulnerability – for individuals, single organisations, nations, multinational areas and the entire global system. Actors and systems, at all these levels, are exposed to variations in horizontal events and have some adaptive capacity. Moreover, to varying degrees, each nation, organisation or individual is financially dependent in the sense that their financial functions are sensitive to variations in supplying financial markets and allocation systems. The possibility of such variations constitutes financial uncertainties for them and for larger systems and interacts with horizontal uncertainties. Again, at all these levels exposure to various operational, financial and total uncertainties and adaptive capacity are key variables.

Functions and instruments

Over the past centuries, material living conditions have improved dramatically. Industrial and political developments from the mid-19th century onwards meant fundamental changes that both raised material standards for the majority of people substantially and generated new constructions for the distribution of wealth. Control systems have contributed, especially by stimulating and promoting technological innovations and their diffusion processes. In this sense, the Western economic system and its financial control system have been strongly instrumental since the Industrial Revolution.

Originally, control instruments were rather simple and directly connected to concrete aspects of organisational life. Early in the 20th century, few plans and targets were developed for financial and accounting data. Nor were marketing efforts strong. By and by, opportunity and future-oriented costing were implemented. Predictions became more important and were impulses for courses of events, as a complement to a *fait accompli*. During the decades after the Second World War, budgetary planning at the organisational level was widely introduced. Marketing efforts were developed. Financial control systems developed over time. The development of instruments focused on methods and processes; professions also developed.

Instruments continued to be developed. By and by, they became technically sophisticated. They captured more, but on the other hand they tended to be less connected to obvious and concrete circumstances of specific organisations, and moreover, they focused less on ultimate purposes and functions. Expectations and prospects became a dominant part of financial control systems. These were not centred around organisational circumstances as such but were more connected to external forces, upwards and forwards. They were critical in many vertical and horizontal processes. Opportunities and alternatives were stimulated and favoured without strict boundaries. The time horizon was essential. In particular, functions to satisfy were specified more and more, often from a direct utility point of view, at the expense of functions of a more general and vague character. Activities were oriented towards identified products rather than price-less functions. This was one of strongest trends for many decades.

¹⁸ Even if my views and concepts are not always consistent with the book *Panarchy*, I have found it most stimulating for my ideas in this part of my book, *Present functions and transformation*.

For a long time, control systems have had fictitious elements.¹⁹ Group accounting is built on the illusion that a parent company has a direct relationship to assets and liabilities in subsidiaries, even though this is obviously not the case. Profit centres are regarded as independent of central executive units operationally and financially, which is not the case either. Products and costs are associated without causal grounds. Fair values in financial reporting can be based on opportunities and prices that are not presently considered by the specific company and will never be considered. Valuation techniques in corporate finance may be based on verbal model markets that will not signify any actual conditions in which values-in-exchange appear. Expectations at one point in the time are compared with expectations on a later occasion or values based on hypothetical premises, for example risk measures with a historical background. Uncertainties are converted into calculable risks. Many such elements can be an ingredient of standards that companies have to comply with. As a whole, prospects rather than retrospect have more and more become the nature of financial control.

Focus on instruments and the sophistication of instruments provide possibilities for progress but also create a potential problem: an over-emphasis on methods and processes in relation to underlying purposes. Each primary move towards sophistication soon leads to a subsequent step with its own secondary purposes as an end in themselves.

Functions and financial control for organisations

In the past, public-sector control and private-sector control were mostly regarded as two different fields. Furthermore, simplified notions about various mechanisms often served as ideological and rhetorical weapons when overall structure and control systems were constructed. In the mid-20th century, the expansion of the public sector in Sweden was supported by unrealistic ideas about “people’s” influence on resource allocation in society. In a similar way, market liberal ideas at the end of the century included operational, social and temporal contexts for resources and their use only to a very limited extent.

For me, the starting point is functions rather than control methods. In that case, much is to be said for a more holistic approach analytically. Economic systems should satisfy the functions of large groups of people. These functions are based on common resources to a decisive extent and have many interconnections. Activities within the private and public sectors are interdependent, especially in the long term, and they aim at human goals that are interdependent too. There are pay-driven approaches and function-driven approaches to the basic problem. To what extent, and in what way, can these approaches be combined? How should pay-driven units be managed? What should be the role of authorities and control subjects in relation to pay-driven units? How should tax-financed function-driven units be governed?

The private sector is not financially independent of the public sources. Authorities, based on political will and decisions, may occasionally give financial support to threatened corporations of significance for the financial system or some important industrial sector. It is uncertain when and to whom such support will be given. Nevertheless, financial independence and uncertainty are at lower levels than would be the case without this possible support; this may have implications for rate-of-return requirements in both vertical and horizontal processes.

¹⁹ In his book *Accounting, Accountants and Accountability*, MacIntosh uses the term “hyperreality”. Even if my approach is different, I make observations that are similar.

Generally speaking, financial control systems for organisations are constructions for handling economic scarcity: how functions and visions are related to resources. They are instruments for dimensioning, for activity orientation and for efficiency. In the public sector, typically, organisations are devoted to certain functions. Funds are allocated for the benefit of some area of significance and directives are given. Various control techniques are used to approach function within the public sphere, including pseudo-commercial models and assignments to privately-owned organisations. It remains to be seen what actually happens at the operational level and what the horizontal effects are.

Political bodies and the public sector determine the frames of control systems for the private sector. In these systems, funds are allocated to organisations by users and buyers for the benefit of the use of products. Allocations are also made by financial institutions for the benefit of financial return. Investment opportunities differ in terms of operational and financial risks. In the private sector, typically, pay-driven organisations develop new businesses and products and hopefully they will satisfy functions in the future – it is not always clear exactly what these functions will be and whether products will give a financial return or not. The forces of units in truly decentralised structures have been one cornerstone of economic systems.

Financial control issues can be discussed in terms of a few basic issues. ***The horizontal issue:*** what do states and flows in the horizontal line look like? Some forces are opposed to each other in this line. The first is efforts forwards to satisfy a user – and ultimately an end consumer. The second is the interests related to organisations. The third is considerations backwards. ***The vertical issue:*** what do states and flows in the vertical line look like? Two forces in particular are at work in the vertical controlling process. The first is that current functions and renewal are achieved by continuous, permanent organisations. The second is the perpetual search by financial principals for new alternatives for future functions and for vitality in existing organisations. ***The reinforcement issue:*** Vertical processes and horizontal processes reinforce each other. How is this done and what are the effects?

Structure and control systems

The overall economic structure contains many types of organisations: Pay-driven companies are growing with potential buyers' purchasing power as a driving force and they have a world-wide impact on product markets and labour markets. National and local companies are pay-driven. Function-driven organisations are funded by taxes, primarily within national borders. Constellations of pay-driven and function-driven units are common, as well as many variants of relations from operational or financial points of view, for both private and public activities. Function-driven non-profit units, for example within popular movements, work within areas that other organisations do not deal with.

The basic logic behind pay-driven units is the search for horizontal functions that could be satisfied for those who have the capacity and willingness to pay. Big business groups are almost borderless. Their preconditions and modes of operation make such an extension a natural consequence of powerful ambitions. Many people are concerned, as workers, users of output or savers. Only rather rarely are function-driven units borderless. Often their existence is based on the fact that certain defined groups should be served or satisfied, for example citizens of a nation or a municipality or the members of a non-profit association.

The horizontal flows of many function-driven units are contingent on continuous decisions by allocating units. This is the case for tax-financed activities. In turn, however, allotments to them and their financial capacity are conditioned by the development of pay-

driven activities in several ways. Not only is funding affected by private income generation. Also, pay-driven units normally have better opportunities for selection and improving productivity in some real sense. For this reason alone, costs of output tend to increase continuously in many function-driven operations.

Nowadays, a substantial number of organisations are, directly or indirectly, occupied with financial allocation systems such as financial markets and tax systems. A large proportion of actors in emerging structures and control systems have weaker contacts than before with low-level, non-financial horizontal flows. In large organisations, relatively unconditioned decentralisation is not common. At the same time, there are obvious difficulties in organizing powerful subjects at really high, super-national levels where global problems can be addressed. Intermediate levels have grown – larger and larger groups of people and organisations that are specialised in administrative, financial, communicative and controlling techniques. These have been regarded as extremely important, there have been great ambitions to create incentive systems to direct and reinforce their work on a local and time-bound basis. Traditional control subjects have lost some of their weight, both group executives and national leaders. Power has moved upwards – to the representatives of owners and super-national bodies, respectively.

Those who represent an organisation at the top are often professionals or politicians who are at distance from most substantial horizontal flows. Top-level representatives have their mandates from unorganised individuals who are at an even greater distance from activities tending to disregard the relationships between their various, conflicting interests. Parties may spatially and mentally be far from each other, but ultimately they are mutually dependent. Thus, top-level representatives have some interaction with large groups of anonymous individuals: voters, consumers or investors. For many pay-driven organisations, interaction is strong between vertical principals and customer groups that have purchasing power. These organisations aim at target groups with such power and they adjust products and costs accordingly: for what and how much do they believe customers are willing to pay? Functions-driven organisations should serve some specific group, for example citizens of a nation. Often this does not prevent them from defining target groups within that frame, even if it has no substantial effect on payments. In part, needs are humanitarian. Output must be modified with regard to allotted funds, which develop in their own way.

Control of organisations

The structural state and control instruments of each organisation at a certain point of time have been shaped over a number of previous years. They include some instant processes and output, some modes of operations and some inbuilt values. Horizontal relations are critical. To what extent is an organisation influenced by or influencing actors backwards? To what extent is it influenced by or influencing actors forwards? The nature of its financial function has been shaped over the years. To what extent does the organisation have the capacity to take care of the financial effects of operational variations? To what extent is it dependent on financial markets and outside allocating systems and their variations? At various vertical levels, measures can be taken. Old financial control instruments can be modified and new ones can be introduced. In practice, different kinds of system components and changes are available at different vertical levels. They may have an impact on operations and financial functions, with various time lags, and be strong or weak.

The degree of sensitiveness to external horizontal forces is important. Within both the public and the private sectors much attention is paid in some way or another to certain

functions and certain groups – the targeted areas of significance. Control systems, even in the public sector, may mediate external opinions, not least about output. This may cause minor and frequent modifications of functions and products, contributing to areas of significance that have already attracted considerable efforts. Product differentiation will increase within narrow frames. Profound moves in functions, however, are not stimulated easily this way. The types of boundaries of an organisation in the horizontal chain have consequences for how sensitive it is to changes in various external forces. Also, the amount, form and application of targets and limitations must be weighed against room for adaptive behaviour.

Some stability is desirable as well as some influence on other horizontal parties – avoiding immobility in relation to all the surrounding parties. On the other hand, influences from outside are essential for developing long-term functions. Sticking to a financial control system, without an adaptive mind, may be an obstacle to dynamic forces. Often, profound moves call for room for action and a self-sustained view on problems. However, relationships are not simple. Some stability is needed for current functions. Prospects and opportunities for the future mean instability in some respects and striving for stability in others.

For individual organisations, long-term financial decoupling is impossible. Uncertainties and risks are determined partly by discretionary inside decisions and partly by external events. Exposure to these operational and financial risks and uncertainties, and how they are handled, is critical from the organisation's point of view.

The hierarchy above operational activities manages all issues concerning stability and change. The vulnerability of the organisation as such may constitute a varying concern. The background differs: what events actors at different levels are in touch with, what bases of knowledge they have and what alternatives they consider. Will upper levels, perhaps, focus on vertical and horizontal procedures and on repeated structural changes, rather than on horizontal activities as such? What will be supported and what will be prevented? Lower levels will have a stronger focus on developing these activities and improvements from that point of view. They have no immediate reason for considering any other functions and visions. Introducing market values and approximate equivalents in financial accounts represents a step in this perspective. The penetration of transformation processes within the existing structures of an organisation is not primarily supported, rather some unspecified alternative use.

Organisational behaviour is a systematic, continuous force. Each organisation has its own separate perspective. Most of them are intensely driven and are supported by control systems that are deeply rooted in their separate financial conditions. Top-level executives in particular are expected to be, and most of them are, heavily engaged in their limited tasks from their point of view. Partitioning is combined with force. Often it is not primarily a question whether there is sub-optimization in relation to a defined entirety; it could rather be described as local and time-bound optimization in relation to partly uncertain and only partly defined areas of significance.

Control systems and measurements are fragile in relation to most problems but are applied in a mode of energetic and forceful focus on explicit measures, targets, limits and processes of the separate unit that they represent. An intense hands-on mentality, sometimes at a distance, at high speed within narrow boundaries, has become common. Only marginally are wider repercussions parts of an agenda. Separate perspectives are often strong and time horizons relatively short. Sometimes attention is attached to one single aspect, measure and target, or at least only a few, that is central to this perspective, functioning from a

communicational point of view. All these factors may be regarded as obstacles to adaptive behaviour.

Professional ideals include explicit quantified measures, targets and limits as well as qualitative norms and rules of processes. Now and then, establishing rules of processes is a way of handling conflicts of interest. Instead of setting a certain limit, a procedure is prescribed. The question is how instrumental such process rules are for ultimate functions. Some extensive regulations of processes may not be instrumental for a material, experiential or operational function. Rather they may express ideals within some professional sphere. They represent a high degree of instrumentalism. On the other hand, being able to adapt, rather than sticking to certain targets and limits, may be a critical quality, although rules of processes with such aims are vague by nature.

Affected systems

The handling of organisations – with their control subjects at different levels – has implications for a number of other systems, with or without particular control subjects.

Control subjects and objects

There is no easily located responsibility for an economic system in its widest sense; self-organisation takes place to an essential extent. Many parties meet each other and are involved. Some organisations influence parts of events. National and super-national organs may institute laws that are important at certain points. Authorities can also affect developments through allotments and directives, as well as through fiscal and monetary policies. Codes of conduct are defined for certain relations. Financial reporting bodies set standards. National supervisory boards can take measures when an organisation does not comply with general rules. To some extent, the contents and norms of public information systems emerge in close relation to business transaction activities and information technology opportunities, rather than being determined by any formal control subject. This type of information requirements basically supports certain kinds of local and time-bound behaviour and may change in character over time. Authorities at a national or multinational level can become operative actors when some essential part of the structure is threatened.

It is difficult to define the state and nature of the widest systems, including uncertainties. Moreover, it is a dominating fact that no one can be said to represent an obvious entirety and overall interest, irrespective of separate interests. Nevertheless, formal and informal control subjects exist – special organisations within the public or private sphere and the mass media that in fact play a controlling role. They cover some control objects and/or some more or less well-defined economic system. Some of them, such as standard setters within various fields, are established to fulfil a certain control function. They prescribe rules for measures, targets and processes, they monitor object activities and some of them allocate resources. Others, such as the mass media, are surveying processes and effects. They may themselves be working within a system where competition explicitly prevails in various respects.

Control subjects have their targeted areas of significance. But there are also residual areas: functions and dysfunctions, in general or for certain groups, that are affected when other aspects are targeted. Uncertainty and lack of visibility is fundamental for critical relationships in and around most organisations. For this simple reason, notions of

transparency and perfect information are not very natural reference points when control systems are to be designed or described.²⁰

National and super-national levels

Nations represent certain economic systems and have controlling subjects, ultimately the people as such, parliament, government and various authorities. Traditionally, national bodies are strong control subjects. They reallocate funds. They should satisfy functions, some of great urgency and growing, with national taxes as their main financial source. For nations, continuous adaptation is a key issue. Financial policy and monetary policy are two major tools. In the epoch around the year 2000, for some nations like Sweden, financial policy was based on strict expenditure limits and of strict avoidance of budgetary deficits. Control through monetary policy was emphasized. Strict targets, which were intensely applied, rather than adaptive behaviour in broad terms, were the main line.

Pay-driven units work within an infrastructure that political bodies have strongly contributed to, and they cannot do without that structure. From society's point of view, the legitimacy of pay-driven units is based on how they make contributions in horizontal processes or vertical processes. Operational regulations are required when outcome is urgent for large groups of citizens. Standards for horizontal states and processes are set, for instance within the environmental field and the labour market. Behaviour in certain fields is checked with regard to societal vulnerability and potential damage by interruptions in horizontal processes. Protection against such interruptions is a long-term issue, and financial independence, roles, risks and rewards of pay-driven organisations may be judged from that perspective. In interconnected systems, interruptions are probable but perhaps only at long intervals. Thus, the availability of funds from political sources is a last resort that is used for some organisations on few occasions.

At the end of the 20th century and in the first years of the 21st century, the structure of pay-driven units was transforming towards a more global and multinational system. Products and marketing and distribution procedures that are effective from a communication point of view are spread over the world. Not only pure production but also units for administrative work, development activities and executive functions are movable. The same happens to financial business activities such as trading on stock exchanges. For many large companies, vertical procedures extend upwards to internationally traded shares. Group managers are located in relatively few countries with subsidiaries in many other countries. Naturally, there is one perspective on these subsidiaries in the purely vertical line and another perspective from a national point of view. Nations have their share of horizontal flows within all international organisations, together with the corresponding taxable income.

The infrastructure and restrictions for pay-driven organisation, horizontally and vertically, are to an increasing extent a concern of super-national or international bodies. In the public sphere, a super-national level is above every national level. Nations do not control subjects to the same extent as before; rather they too are controlled as a part of a greater collective. At

²⁰ The opposite view is apparently more common in financial accounting literature. See, for example, Barth & Schipper, *Financial Reporting Transparency*. They propose a definition with representational and users' perspectives: "the extent to which financial reports reveal an entity's underlying economics in a way that is readily understandable by those using the financial reports". Barth & Schipper do not discuss conflicts of interest, nor the distance problem or any contextual problems. They argue that transparency is "a worthy goal", because the cost of capital tends to be reduced.

the super-national level, there are temporary projects and permanent, function-driven organisations that are exposed to general mechanisms but they have extra complexity due to complicated relationships between nations with various sets of problems and intra-national organisations.

Inter-organisational systems

What may be regarded as an economic system does not necessarily have particular controlling subjects, at least not in the same sense as a financial entity. Relationships are broader. Perspectives are different. Specific areas of significance are given emphasis, and interested parties may attach different weight to them. What is an external effect for a financial unit now becomes an endogenous phenomenon. For example, risks that are carried over to consumers can be regarded as external or not, dependent on the boundaries of the system. A typical feature of many of these greater systems is that boundaries are not obvious and uncertainties prevail about the functioning. Local and time-bound optimization for a smaller system may be valuable, but it also represents a potential problem.

Both in practice and in theory, inter-organisational control and networks are important phenomena. Interaction between organisations horizontal-wise may be a key issue, irrespective of organisational boundaries. From that point of view, the division of financial functions among different organisations may prove to be an obstacle. After all, each organisation has its own financial perspective. In addition, financial interconnections may complicate. Some financial organisations are sensitive to operational and financial uncertainties in non-financial organisations. Some are sensitive to operational and financial uncertainties in other financial organisations, and to variations and shifts in assets and funding markets or allocating system, which may or may not be connected to the development of non-financial companies. The functioning of financial markets and allocating systems is in turn decisive for uncertainties about everything, including the development of values-in-exchange of assets and public transfers of funds. Adaptive capability in the whole interconnected system is vital. The financial capacity of each organisation, including the ability to handle external disturbances, is a tool against vulnerability in such systems. During the second half of the 20th century, control systems became less and less oriented towards the self-sustainability of individual organisations. A rather great vulnerability in financial institutions, with possible long-term occurrence, was also accepted through rules.

In this perspective, too, introducing market values and approximate equivalents in financial accounts represents an essential move for both financial and non-financial organisations. Such measures will show a more volatile world than traditional measures. This raises questions such as: How volatile are signified events fundamentally? What effects will signifiers induce? Predictions of market values require not only a view on fundamental processes, irrespective of market development. People also have to judge how prices will interact, irrespective of specific fundamental intentions with an asset or a liability. Thus, interdependence between observable values will be supported. Volatility will increase, sometimes in terms of signified market-related events and beyond this also in terms of signifiers without any corresponding movements in underlying activities. Market values and approximate equivalents will function better in a period of rising prices than in a period of falling prices, when market processes exist with less frequency and behaviours are especially irregular.

Interpersonal systems

Financial control systems raise basic issues about equality. One fundamental idea might concern instrumentality. Those who contribute to the material, experiential and financial functions of others within a certain group should be rewarded. Personal capability and performance are decisive. This is the basic concept, even if constructing incentive systems on this basis will be exceedingly difficult. Another fundamental idea might be to provide what is needed for certain material, experiential or financial functions. Equality in such terms, or minimum levels, is the governing principle. Historically, nations have been obvious reference points in this respect. Partitioning is a possible strategy for wealthy people and nations, at least in the short term, but on the other hand dependencies evolve over time. In the end, everybody can be affected by the fact that some groups are not part of a social and economic context and exist where welfare and values are not shared.

Financial control systems tend to make the distribution of wealth uneven. Not least the restructuring of economic systems makes this issue urgent. Transformation, development and the need for future functions bring opportunities and risks. To what extent should and could the protection of individual functions be an area for arrangements of individual finance functions? Or should it be approached by collective funding through an organisation that will try to maintain some functions for a certain group, such as citizens of a nation?

Resource systems

For the entire horizontal process, output must be viewed in relation to sacrifice and to input backwards in the chains, reaching as far back as natural resources and working condition at various stages. Usually, forward-driving forces in the horizontal line form a basic logic of control procedures. Control systems during the first years of the 21st century focused on separate interests and especially supported certain near functions forwards. This type of systems is not ideal for managing problems that basically concern everybody and have long-term character, such as managing natural resources. Many variables have to be handled simultaneously. Visible effects appear by and by, but after a time very tangibly; some resources that are not renewable are consumed gradually.²¹ States and ongoing processes will remain unknown in essential respects. Fundamentally, there is no alternative. The aim of control is not products that are traded to satisfy human needs and desires but rather physical and biological states and processes that go on without any intentional meaning. Effects hurt the physical and biological environment, which ultimately is the foundation for everybody. Thus, this is not a concern for certain traditionally defined groups, even if various such groups may be affected to varying degrees.

²¹ One extraordinarily early book about environmental issues was published in 1864, *Man and nature*, by George P. Marsh. The very existence of this book with its observations illustrates much of the long-range character of this issue.

Control of controlling organisations

As in pay-driven organisations, all controlling subjects partly focus on separate and professional interests. All controlling organisations do, including authorities and the mass media. Often, control bodies are parts of a complicated vertical and horizontal structure, and this is the case even more when problems and organisations extend across national borders. Operative, standard setting and supervisory authorities within the public sphere are not exempted from general mechanisms that any organisation meets. Operational regulations, surveillance and financial support are handled in function-driven organisations that are exposed to many of the same forces as most tax-financed units. Thus, also for the design and evolution of control and surveillance systems as such, target-oriented driving forces are essential and processes go on that have many similarities with any user-oriented process, whether commercial or not. Everybody tends to focus on the articulate vertical and horizontal interests around them, often, but not necessarily, to be in conformity with the surrounding actors.

One important question is the extent to which control bodies pronounce standards that are based on their own broad basis, and to what extent their position reflects the views of outside actors. For example, accounting standard setters may have the view that financial reporting should be useful for a certain group like analysts, and they may try to capture analysts' views. This is only one way of reproducing one type of separate views at one point in time, rather than trying to identify what would be functional for the economic system in a broader and longer perspective. It is not necessarily a good idea to let a standard setter construct accounting rules with the needs of "decision-makers" as the main guide line. If this ambition is fulfilled, the current views of such decision-makers will be built into the control system, which does not mean that the system will be appropriate for future situations of a very different character. Application problems are obvious for systems that are not very robust, which is the case with many rules based on predictions. Implied effects may also appear in the long run, such as the distribution of power among owners, boards and central executives.

Each control subject has a distance to its control objects. Professional story-telling occurs at a distance for a public at an even greater distance. Promises are emphasized and examined. High vertical levels have been emphasized more and more. Top representatives who are at some distance from fundamental horizontal processes communicate with media that are also at a distance, which in turn communicate with recipients that are at an even greater distance. Of course, there is information beyond the rhetorical value but these phenomena limit the possibility of transparency in any deep sense. Distance is also significant for formal supervisory processes and media reporting about them. Supervisory bodies observe at a distance – often then these boards have to evaluate techniques for judging future events, rather than any series of actual real-world events. They have to communicate through mass media. What they report may be distorted by superficial story-telling structures that are more appropriate for intermediaries and media recipients than other more specific and complicated pictures. General terms like "risks" with ambiguous meanings are pivotal.

Professional story-telling has led, perhaps implicitly, to certain views on the vertical relations of organisations. Concerning the private sector, the responsibilities of the board are often focused and widened downwards, which has repercussions on working conditions at lower levels. Processes at different vertical levels are interrelated and the bases for actions are different. Yet, controllability issues are not addressed. Often, laws and rules are determined after public processes that require immediate action based on vague grounds. The

focus is on the highest organisational levels, without any deep insight into other internal processes. Monitoring is at a distance. With this starting point, public rules are modified, concentrating on high-level responsibilities without taking total internal processes into account. From a systems point of view, sanctions are primarily symbolic. Organisations and systems become questionably equipped to meet future disturbances.

Any formal controlling body, public or private, tends to represent a local and time-bound perspective and supports such actions of every object organisation. Designing a control system in a technical sense means partitioning. Areas of significance from a broader system's point of view are not considered. This may be natural from a professional point of view, but the effects of norms can be far-reaching and may include aspects that norm setters would regard as irrelevant for them. Rules and procedures for determining the rules may cause inconveniences for greater systems of an uncertain and less well-defined nature. This may occur without any loud and visible signs appearing immediately, or without being in immediate conflict with many interests, perhaps not even represented in the body. Systems complexity means that part-driven and far-going norm setting, on the conditions of a few professions, makes residual effects probable sooner or later.

Financial control systems – design and use

Control systems have a basic instrumental logic in relations to human needs and desires. However, they may be instrumental with regard to one subject or system but not to another. In addition, problems that need to be solved, control systems design and modes of application may change over time. Scarcity, risks and tensions are intrinsic in the economic system. Financial control systems for organisation must be designed and evaluated with this in mind. How can this system and other organisational arrangements really affect present and future functions? To what extent are horizontal events controllable? Who, at what vertical levels, can exert control and how?

Judging functions and visions and their relationships with resources is a complex task, especially for extensive social systems, relatively ungraspable and associated with uncertainties that are conceived differently by different parties. Problems that include natural resources are even more difficult to depict. Actually, uncertainty prevails about the character of states and processes of nature. Thus, the abilities of a control system can often not be referred to a defined entirety, but rather to a set of areas of significance to which different parties attach different weight. These areas may be difficult to define. To an essential extent, states and processes are debatable and debated.

For most part, ultimate control subjects are weak on their own and full of contradictions. Nevertheless, influence and expectations have moved upwards and forwards, at least rhetorically. Realistic controllability is not a major concern. Conventions and descriptions beyond inter-subjective rigour, models without empirical connections to signified real-world phenomena, control at a distance, fragile measures, instrumentalism, targets and predictions, partitioning – all are necessary and essentially desirable to some extent, as possibly also are the dreams of leaders who arouse enthusiasm in people. But they all also represent the possible degeneration of instrumentality, especially if control systems are applied with intensive force.

Questions about pro-active and targeted behaviour, present functions, future improvements, exposure to risk and adaptive capacity could be raised for a number of subjects and major systems: individuals, organisations, nations, international systems, global systems. Financial flows show a complex and interdependent pattern: surpluses and deficits

for organisations, wages, pensions and capital items for individuals, savings, loans, taxes and so on. The position of various parts in an interconnected system, especially their degree of autonomy, is a fundamental aspect – for the sake of this party and for larger systems.

For individual organisations, the main issue is how the control system is related to the entire vertical, horizontal and diagonal processes. Basically, everybody has to make decisions about how to connect to vertical processes upwards and external norms, how to capture and influence horizontal flows, what kind of information is useful from his or her own standpoint and how to influence downwards. Top representatives of an organisation have a special position. On behalf of the organisation, they have to comply with certain rules from outside. For internal systems, they may connect strongly to these rules or choose a more self-sustained approach. Often, control systems components are not prescribed but are in fashion at the time – naturally, each organisation can make its own choice. Changes of control systems may be judged in relation to other forces that are affecting outcome, development and adaptive capability. Frequency of changes is a special matter. Often, several layers of control systems of different epochs are at work simultaneously.

Controlling wide systems, such as international financial systems, means a mix of control subjects, relationships between subject and control objects and various rules with various kinds of measures, targets and processes described. The combination of components is critical, involving control subjects and varying vertical levels of the objects, not excluding the importance of operational levels, which are near the basic, horizontal observations and perhaps have the capability of immediate adaptive behaviour. It is possible that strong control from high organisational levels is not feasible. Uncertainty is unavoidable, and in some ways instability is even productive for general development. Control systems may be constructed with this in mind. Then, measures, targets and processes should not be designed in detail, as if that would take care of uncertainties. This is in conflict with the view that “risk” problems should be solved by placing more formal responsibility at the highest representative level of large organisations.

An economic system with many areas of significance requires many aspects to be considered simultaneously, on a continuous basis and on urgent occasions. Lack of balance and robustness is a problem, especially in the long term. Strong emphasis on a few measurable variables in current activities creates biases, as do strong central regulations from a narrow perspective. Linking between different perspectives is needed. Pay-driven and function-driven approaches at various organisational levels should be combined with influence from national and super-national authorities, based on an empirical view on what authorities do and can do.

Forceful linking between different sub-processes is a key issue for control systems that are instrumental for sustainable futures. Both pay-driven and function-driven activities are necessary if new technology is to emerge. Collective funding is required and must be coordinated. Function-driven organisations are needed because the basic issue is problem-solving for comprehensive processes and states of nature, rather than supplying products and systems in a traditional sense. The simultaneous handling of many interdependent variables does not allow such decentralized forms of control that essentially characterized the emergence of the welfare during the 20th century.

At every point in time, each individual, with her and his different interests in relation to many organisations, can take a look at her/his present state, future prospects and vulnerability, from a financial point of view as well. Individuals have to find their way in the social, local and professional life, they have their level of consumption and they need to earn a living and to be included in savings schemes. They are or can make themselves rather

independent of how circumstances around them change or they may be strongly exposed to continuous variations in the environment.

Research

It cannot be ignored during the early 21st century that among accounting researchers there is growing interest in the relationships between “real world problems” and academic research – perhaps even a questioning attitude. Most research efforts have a specific and rather limited perspective – partitioning is common in research, too. Insights may no doubt be gained within such frames. However, clarifying perspectives and approaching integrative, linking issues are important strategies, if complicated real-world problems should be based on social research. Conventions and models beyond inter-subjective empirical rigour need to be approached in an analytical spirit; the actual, current roles of researchers often seem to be supporting and inventing new conventions and models.

Often, explicit conclusions are too far-reaching, especially if they are transformed into something that is communicable to larger audiences. Social research, like other informational activities, includes story-telling exercised by a profession in relation to target groups in lecture rooms, media of various kinds – including academic journals – and the world of practical conduct. At abstract levels, the everyday logic of ordinary people sometimes coincides with simplifications within narrow professional frames, especially if such professional views are transformed into a public form and underline popular concepts that have strong rhetorical power, like “greed” and “transparency”.

Complexity, rather than over-relativistic simplicity, should be a line for descriptions in social research, especially with respect to long-term effects. In many ways, research is exposed to the same mechanisms as other informational ventures that have been described above.

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