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Time is Money or What?
The Labour Market in a Socioeconomic Perspective

Abstract

In economic theory, time is money in the sense that labour supply expresses a trade-off between income and leisure, assuming away other motivations to work. The demand for labour links marginal productivity to the wage rate. Time is taken into account in the resulting production flow. Since the marginal productivity of labour is also determined by motivations that are treated asexogenous, labour supply and demand are not independant. A socioeconomic perspective of the labour market takes into account institutional and motivational changes, and explains unemployment as a consequence of the emergence of a new value system based on a looser relationship between income and future leisure. In order to include new behavioural patterns in the analysis of the labour market, economics must be defined as a subset of the social sciences and rely on more inductive approaches, in which economic rationality has to be complemented with other possible forms of human behaviour. Labour as a factor of production tends to be replaced by a wide range of human activities.

Introduction

Conventional economic theory constructs a model of the labour market which links the supply of labour to income and the demand for labour to its productivity. Both are constrained by the cost of labour. The usual market clearing mechanism then applies. Supply meets demand at a unique price: the equilibrium wage rate. The fact that this wage rate may be expressed in real or in nominal terms leads to the usual distinction between classical and Keynesian inspired market clearing mechanisms, but does not alter the basic message of the model: the labour market is cleared mainly because of the flexibility of the wage rate. Unemployment is then viewed as an excess of supply over demand due to wage rate rigidity.

This quick reminder of the theoretical result of the traditional approach to the labour market contains many implicit assumptions which it would be too fastidious to recall here. In short, a distinction can be made between assumptions that are at the root of any market analysis and those that are specific to the labour market.

In the first place, it goes without saying that individuals participating in the market are assumed to behave rationally. This highly controversial assumption, which is central in the socioeconomic debate, can be defined as the constrained maximization of utility, respectively profits. This leads to the commonly accepted view that economic problems can be reduced to functions whose optimum value must be determined. The elementary market model clears when the optimal strategies of supply and demand meet. Market disequilibrium informs about differences in the outcome of these strategies and can be explained strictly in terms of price. In its essence, this model is static because it assumes away time.

In the second place, the assumptions specific to labour market analysis regard the economic behaviour of the actors and the quantity of labour as well as the wage rate.

The behavioural assumptions on the supply side imply different substitution and income effects depending on the wage rate. As long as the substitution effect prevails, the supply of labour behaves "normally"; its elasticity with respect to the wage rate is positive. If the income effect dominates, the supply curve becomes backward bending. In both cases, labour supply is a function of the wage rate. Time as an explicit variable is left out again.

On the demand side, the equalization between the marginal productivity of labour and the cost of labour determines the optimal quantity of labour that firms want to hire. Lower productivity makes for lower wages rates, and the demand for labour is a decreasing function of the wage rate. However, the existence of other labour costs than wages, e.g. specific training programs, may lead to situations where the marginal production of labour does not equal the wage rate. Labour hoarding then results where the time dimension is explicitly taken into account.

These basic assumptions are part of mainstream economics and are found in any textbook (e.g. Bürgenmeier, 1989, pp. 275-291). They have to be completed as far as the quantity of labour and the wage rate are concerned. If the quantity of labour is measured in hours, not only can a trade-off between work and leisure be identified, but a link between time and income can be established (cf, Arts, 1991).

In such an approach, income is nothing but the salary defined as the product of the quantity of labour multiplied by the wage rate. Therefore, the allocation of time appears as an alternative interpretation to the trade-off between income and leisure. In this sense, time spent at work is rewarded: time is money.

In this contribution, we reexamine this theoretical approach in a socioeconomic perspective (Bürgenmeier, 1990a) by focusing on the behavioral assumptions on the supply side, on the concept of productivity on the demand side, and on the methodological flaws which accompany models that have been tested using traditional neoclassical assumptions (Etzioni, 1989).

Labour Supply and the Motivation to Work

Since economic theory assumes some kind of trade-off between free time and income to explain the motivation to work, there must be several possible combinations between income and leisure. The individual preference for a given level of satisfaction is expressed by means of an indifference curve between two human needs, which is captured by time allocation, i.e. the number of hours spent on work or on leisure. The need for one may then be expressed in terms of the other (e.g. Elchardus, 1991; Knulst, 1991).

This theoretical conception can be criticized on two counts.

First, the institutional constraints included in legal provisions regulating the labour market as well as in collective contracts agreed upon by trade unions make the trade-off between income and leisure illusory. If eight-hour days are imposed, there is virtually no choice. Economic analysis applies only to overtime, which in most countries is rather strictly regulated.

This raises a fundamental question about the interaction between the working of institutions and economic theory. Economic theory attempts to produce laws independent of time and space: on the contrary, institutions are modified through policy-making processes. This gives the labour market an evolutionary aspect, as shown by the fact that the number of working hours has decreased over time, as social security and safety regulations were introduced. The institutional setting has deeply altered the labour market, which is not only affected by economic but also by social forces. One of the driving forces of social change is the full and equal integration of women in the labour market, which can be facilitated by institutional arrangements escaping the economic mechanism of flexible wage rates.

It is worth insisting on the institutional aspect of the labour market because of the other time dimension brought into the analysis by a historical study of the "rules of the game". Historians like Bergier (1983) recall that at the beginning of the 19th century, factories did not meet elementary safety and health standards. Factory work by children was common place. At that time, the life expectancy of a worker in the steel industry was around 35 years. Improvements were introduced by the English Factory Act in 1833, which represented the first instance of state intervention in the labour market. Needless to say, this intervention was highly controversial, a controversy which is still present nowadays.

The then defenders of non-intervention argued that the reduction of working hours resulting from state intervention would ruin the economy if the nominal wage rate did not decrease simultanously (Mill, 1940). The second argument emphasized the contractual freedom of individuals, supposedly able to understand what they agreed to. However, this "age of (free) consent" has increased over time not as a function of unswerving economic principles, but as a result of various social pressures. Moreover, classical economists have appropriately expressed the spirit of the 19th century, by formalizing in their models the link between salary and working hours, but no distinction has been made between short- and long-term effects. A theory of the firm, as distinct from the theory of production, i.e. as an organization and decision-making unit applying power strategies, was missing. This gap can still be observed in orthodox economics today, in the light of the growing concern for more flexible time allocation arrangements in the labour market, namely as far as job sharing and other forms of participation are concerned. Economic theory, however insists that the wage rate must express the marginal productivity of labour. Social instead of purely economic arrangements of the labour market are therefore considered to create additional costs that decrease marginal productivity and hence the wage rate.

This blinkered view is not specific to labour market analysis and can be observed at a general level. At the beginning of the 20th century, the institutional school of thought suggested an alternative interpretation of the workings of the economy, but did not succeed in influencing mainstream economics. Perhaps this could have been achieved if these schools had recognized their complementary nature, but the classical approach moved on to highly complex and deductive models which assume away their institutional underpinnings. One of the general denominators of the institutional critics is that economic science is culturally determined and tributary to the history and culture of the West. In any case, neither its methods and nor its models can be generalized. It does not have the universal value that neoclassical economics claim to have. From an institutional point of view, state intervention rests on normative criteria applied for changing economic structures, including the labour market. Therefore, the fact that values in economics are relative is particularly obvious over time.

Second, income and leisure may satisfy a variety of different needs. Therefore, it is not acceptable, from a conceptual viewpoint, to assume a unidimensional link as indifference curves do. For example, if income not only satisfies the need for consumption goods, but also the need to indicate social status, how should it be compared with leisure, which can also satisfy this need? That brings us to the change in the value system expressed in the hierarchy of needs. The theory of optimal choice by workers treats the need for income and the need for leisure at the same level. It only takes into account the intensity of preferences as an increasing function of income. In this sense, the economic hierarchy of needs follows the logic expressed in Engel's law, which classifies consumption goods according to their elasticity with respect to income. Work and hence income have priority as long as basic needs have to be covered. With increasing income, there is an associated increase in the need for leisure which, by the same token, is treated as a luxury good. Therefore, the only criterium for measuring the intensification of a need is, besides given personal preferences, the change in income.

This interpretation contrasts sharply with results obtained in psychology, where the motivation to work is closely linked to group identification and social integration (Lea et alii, 1987). Therefore, in opening the economic analysis to other dimensions, new motivations appear to which ranks can be assigned (e.g. Elchardus, 1991; Swedberg, 1991). According to Maslow (1970) four motivations to work can be classified in the following order: income, pleasure to work, social contact and finally self-realization. Once a need is satisfied, it loses its intensity and makes the others more attractive. As economic theory only takes the first need into account, it cannot claim to offer a general expla-

nation of labour supply. This is even more true in societies where different needs are gaining ground.

In order to move away from a theory which looks on the work force strictly as a factor of production, an interdisciplinary approach has to be developed. This can also change society's perception of the unemployment problem. If neoclassical theory has to be complemented by a theory of motivation (in which free allocation of time plays an important part), we must abandon the concept of a general equilibrium based on neoclassical labour markets. A more partial analysis of concrete situations has to be favoured, because different motivations to work depend on specific circumstances and variables, such as those encountered within a firm and within a profession shaped by institutional factors. When observing social behaviour in different professions, an interaction between different motivations and the institutional framework clearly appears (Lalive d'Epinay, 1990, p.87).

This framework changes in response to new needs, but this is visible only if the narrow interpretation of labour supply as a mere production factor is abandoned. The integration of women in the labour market collides with this narrow interpretation that pervades economic theory and reflects the traditional way of thinking.

The adaptation of institutions to new demands on the labour market must therefore overcome a double handicap: on theoretical grounds, the purely reductionist approach has to be opened to findings coming from other disciplines. On practical grounds, the organization of production must not be established in respect to economic but also to social factors.

However, one must admit that the utilitarian approach to the labour market remains an important one, not because it may be right or wrong but because our society has adopted this view in its symbolic expression of values. Therefore,the rationality assumption has definitively a sociological content. This is already apparent in the educational system and extends in professional as well as in private life. This view is also used in justifying the subservience of societal arrangements to economic ones. References to a flexible market system are used to justify the autonomy of the production sector as a whole. In spite of this economic intrusion in the social pattern, changes in motivation are clearly visible. Apparently, more and more people do not accept this unidimensional view of human behaviour in the labour market (Volker, 1987).

This trend does not enjoy the same powerful theoretical backing as the conventional interpretation of the labour market. A widely accepted alternative theory is missing. The theories of motivation built on psychological or sociological grounds are fragmentary. Our reference to Maslow's theory is also exposed to criticism in its own field.

Therefore, there is room for a challenging research project seeking to assemble pieces from different perspectives into a picture which is not yet known, but which may finally influence mentalities and change society's perception of the functionning of the labour market. This still blurred image must replace conventional economic theory, but it will take time to find this new image. Purely economic arguments will be more and more unsatisfactory when moving to higher-order needs which can be said to be a step further away from the usual economic compensation of work in the form of income. The importance of social and cultural needs is reinforced by the ongoing transformation from an industrial to a service-oriented society. The allocation of time appears to be socially and no longer economically constrained. If needs such as social esteem, social acceptance and self-realization shape the labour supply, they also will have an impact on productivity, which is the underlying concept of the demand for labour.

The Productivity of Labour: a Controversial Concept

What determines the marginal productivity of labour? If several needs are at the origin of labour supply, a unidimensional explanation of the productivity of labour is not possible either, because it varies from one individual or

group to another.

Economic science has produced many definitions of productivity, bearing witness to the fact that there is no consensus. One definition uses the share of production that can be attributed to one factor, and is therefore defined by the ratio between output and productive resources. Output is a flow with a time dimension, which also appears in the denominator if the production factor can be expressed in time units. Therefore, the productivity of labour can be distinguished from the productivity of capital but that does not prevent from talking about the productivity of a sector or of a country. The basic objective is to find an expression (if possible a statistically measurable one) linking productive effort to its result. However, the concept also harbours a normative aspect that refers to the distributive equity of that result.

We do have an elegant theoretical formulation that links the concept of productivity to the demand for labour, a link established in real terms. In order for it to be expressed in nominal terms, production must be evaluated at market prices which also reflect existing conditions on the goods and services market. This calls for a monetary evaluation of productivity and, as a consequence, for a relationship with the quantity of labour demanded by firms. As long as a profit maximizing firm can hire a unit of labour at a cost which is below its return, the demand for labour increases until the cost of the last unit of labour hired exactly equals its return. In this sense, marginal productivity in nominal terms is equal to the wage rate. Under perfect competition on the goods and services market alone, the firm is a price-taker and can consider price as a constant. Assuming this constant to be equal to one, we obtain the only possible theoretical case where marginal productivity in nominal terms equals its real value. The structure of the goods and services market influences the demand for labour in a direct way. An approach analyzing the labour market itself leads to biased results. This conclusion also raises doubts about the use of statistical series measuring productivity, because it is not possible to evaluate the difference between nominal and real productivity without knowing the share accruing to imperfect competition or to inflation.

This difficulty, however, is overshadowed by the fact that statistically, average and not marginal productivity is observed. Moreover, labour is considered as a homogeneous production factor. Different degrees of qualification go hand in hand with different motivations to work. This makes the falsification of the theory on empirical grounds illusory. As a matter of fact, the heterogeneous nature of labour has a troublesome consequence for the foundations of marginal productivity theory. One of the earlier advocates of socioeconomics, J. Hobson (1926) has already mentioned the following argument. In case of an increase in the demand for labour, the nature of the other production factor taken into consideration, namely capital, also changes. More labour does not necessarily need more machines, but different ones. If this is the case, how can the increase in production be exclusively attributed to one factor? More labour leads to a reorganization of the whole production process. Therefore, heterogeneous factors are an obstacle not only to empirical observation but also for the fundamentals of economic theory. Obviously, Hobson had the abstract contents of the theory in mind when putting forth his idea that the conventional theoretical approach assumes away sources of motivation which should also be taken into account in the concept of productivity.

In order to overcome another obstacle, namely technological rigidity as expressed by fixed capital-labour ratios, neoclassical theory puts the labour market in a long-term perspective, where time is apparently expressed through the theory of growth. In the long run, substitution effects between capital and labour are possible, and are favoured by the perfect mobility of labour in time, space and qualifications.

As far as mobility through time is concerned, the standard model assumes perfect mobility, which allows instantaneous adjustments and equal factor prices in all industries. Here we have the old idea that once time is assumed away, economics resemble physics, where the same assumption has been made for

a long time (Prigogine, 1990).

The individual's rooting opposes geographical mobility. This obstacle is more or less important depending on the cultural and social weight attributed to it. According to a study in Switzerland (Bassand and others, 1985), 51 per cent of the interviewed workers facing unemployment would stay and accept another job even at lower wage and only 27 per cent would leave their community. This obstacle has been overcome in several historical situations characterized by rural depopulation and urban concentration. These situations are explained by the need to cover basic needs, implying that geographical mobility was a matter of survival. Non-material needs, however, include a feeling of belonging and security. As a consequence of the industrial revolution, geographical mobility has led to social costs which have been underestimated for a long time. Insufficient transportation systems and lack of urban planning are the two most visible examples of these costs.

If new forms of production allow for decentralized working conditions than do not require geographical mobility, the question to be raised is how far human communication can be replaced by artifical media that isolate individuals from one another.

As far as professionnal mobility is concerned, economic theory assumes homogeneity of labour, hence avoiding the problem. However, in the ongoing process of structural adjustment, namely from industrial to service activities in the administrative sector, the qualification of labour has roughly the same signification as the need for roots. If administrative skills become the essential part of professional qualifications (which leads to a monocultural characterization of the labour market), the heterogeneity of labour is not linked to economic reasons anymore, but to a cultural need for diversity. Even if the transformation process is slow, altering educational requirements from specifically technical to more general abilities, the causal link may have to be revised. Instead of calling for high professional mobility, different economic sectors may be become aware of the value of professional diversity. In this view, labour will not just be a factor of production, but an instrument for self realization.

In the growth process, both the availability of production factors and also technological change are important. The economic analysis of innovation is particularly difficult, and has given rise to many attempts at classification. Even if the economic aspect of innovation is obvious, the cultural side must not be overlooked. Institutions favouring technical progress play an important part, which means that interaction with other social sciences is a necessity. Technical progress not only modifies the production function, but also the organization of firms, mentalities, and motivations expressed on the labour market. Innovation feeds its own symbols into the current value system and contributes to society's perception of economic growth. This perception is deeply rooted: work has to be painful, and based on rational behaviour. Therefore, economic theory assumes away the fact that technical progress gives birth to new mentalities and motivations. Technical progress continues to be expressed by a change in the capital-labour ratio. Since the increase in the marginal productivity of labour can stem from any change in the capital stock, even the sign of the change cannot be determined.

Empirical studies have not succeeded in clarifying the link between technical progress, productivity growth and the wage rate. Statistical measures of labour productivity are based on average values that are unable to express marginal values. Empirical definitions of average productivity lack theoretical grounding. Moreover, they have to refer to a nominal evaluation of the concept, which necessarily interferes with the price system. Therefore, the degree of competition on the goods and services market also interacts with the organization of production, and influences the demand for labour. Time is taken into account in an indirect way. According to the new industrial organization literature (Jacquemin, 1987), competition is a dynamic process which also covers the strategic goals of firms.

The economic shift towards service activities not only makes the quantification of productivity more difficult, but it is also accompa-

nied by a change in mentalities affecting the motivation to work. Therefore, labour supply is not independant of demand, contrary to what market theory assumes. If time is taken into account, this interaction appears to be the consequence of changes in motivations to work.

Unemployment Reconsidered

Our criticism of the current labour supply and labour demand models may contribute to the explanation of why the macroeconomic analysis of unemployment has failed both theoretically and empirically. In spite of an abundant literature (e.g. Kriesner, Goldsmith, 1987), no valid explanation and hence no efficient policy against unemployment has been found on purely economic grounds. This has not prevented the economic profession from producing numerous studies using the same framework: a deductive model has to be tested with empirical data available of the labour market. The number of available time series often defines the number of variables taken into account in the theoretical model.

In spite of all the ingenuity put into finding a remedy against unemployment from a strictly economic standpoint, the unemployment rate in the OECD countries has risen sharply in the mid-seventies and remains at a level of 6.4 per cent of the active population (OECD, 1990).

Neither efficient wage rate models based on the idea that unemployment is a result of lack of wage rate flexibility, nor insider-outsider models with segmented labour markets according to different qualifications or specific labour supply characteristics have been able to produce an operational employment policy. Models of imperfect competition adding search and other transaction costs blamed either trade unions or public unemployment assistance for the failure of such policies. One can draw one conclusion only from these studies: in the field of unemployment, economics is at a dead end.

The fact is on its way to being accepted within the profession. Malinvaud (1989) reached the same conclusion, and called for a research programme that would explicitly take into account qualitative observation and information coming from other disciplines than economics. A broader approach to the labour market is needed.

This view seems to enjoy broader acceptance in the economic profession, as the following statement shows: "The really important way in which the labour market differs from the classical economic market is that there is an understood concept of fairness, which steers the behaviour of the workers and even of employers" (Solow in Swedberg, 1990, p. 279). The inclusion of this ethical dimension can only be realized through an interdisciplinary approach to the labour market (Etzioni, 1989).

Economic science claims to have bridged this gap by being both a positive and a normative science. This interpretation is inadequate. The positive aspect of economics, which reflects an approach commonly found in the natural sciences, is based on observable facts. It sheds light on causal relationships and attempts to understand the labour market on the basis of available information. This has led to an emphasis on purely deductive methods, which form the basis for many of the conclusions in the unemployment literature (for a survey: Bean and others, 1986). This current of thought is exemplified by the neoclassical school, which leads to the important conclusion that maximum economic welfare is the result of individual strategies, and that society does not exist as a separate entity but is merely the sum of individuals behaving rationally. The central theme here is efficiency.

The normative aspect involves value judgements. It is therefore based on a subjective portrayal of the facts and considers the economy as it should be, based on criteria which can only be identified by the political mechanism of collective decision-making. Since economic theory acknowledges that each economic agent is perfectly free to express his own value judgements, there may ultimately be as many different subjective points of view as there are agents. If one point of view is to prevail, it can only be the majority view, identi-

fied as such by a democratic process. The central idea theme is equity, embodied in laws and regulations which codify moral and ethical judgements about the labour market. This extremely simplified picture of the positive and normative sides of the coins provides a conceptual link between efficiency and economics on the one hand, and equity and politics on the other. Seen in this light, the market economy is interlocked with democracy – neither is conceivable without the other. Accordingly, strict application of the principles of the market economy together with those of political democracy should eliminate the need for any kind of economic ethics; ethical issues can simply be dealt with by stimulating these two collective decision-making mechanisms.

Notwithstanding this basic conclusion, which is central to the functioning of Western industrial societies, there has in recent years been evidence of a rapidly growing need to introduce ethical considerations into economics. The reason for this is that, in economics, both the boundary between the normative and positive aspects and the distinction between efficiency and equity are unclear.

Making a distinction between the normative and positive aspects and then linking these with politics and economics respectively is, of course, an over-simplification. Political logic displays certain rational traits, and value judgements play a part in economic behaviour. A great deal of rhetoric – some would say ideological bias – has been required in order to present positivism as the only rational standard for human economic behaviour. First of all, the definition of economic rationality is a tautological one; secondly, human behaviour is influenced by institutions, and vice versa.

The definition of economic behaviour is tautological in that a deductive approach is used to obtain results compatible with the economic rationality which forms the basis for all kinds of economic policy. This is not to say that the hypothesis of rational behaviour by economic agents is wrong, or to deny that it has profoundly influenced our understanding of the way society functions. However, it does mean that economic model-making based on it can only result in social problems being analysed as mere problems of optimization subject to constraints. Not only is this likely to lead to circular arguments, but the market model entails value judgements that are specific to the economic sphere and not separate from it. It is then no longer possible to confine normative aspects to the political sphere and to treat our study of the economy as a scientific discipline in the purely positivist tradition. Thus, even if ethics were nothing more than the expression of value judgements, there would still be a place for it in economics.

As regards the interaction between the behaviour of economic agents and their institutional framework, mainstream of economic thought is at great pains to demonstrate the existence of economic laws that are independent of place and time. In contrast, an apparent common denominator in the aforementioned institutional criticism is the idea that economics is culturally determined. Thus, even if ethics were merely a cultural phenomenon, there would still be a place for it in economics.

Labour is regulated by a number of collective decision- making mechanisms which also include the democratic process and public administration. Comparing these mechanisms, one can observe a tendency in favour of decisions generated not by the market or by democracy, but by private or public bureaucracy. This shift of collective decision-making mechanisms towards administrative solutions has created new attitudes. Society's symbols of the economy have changed, shifting the emphasis away from efficiency and towards equity. The decision-making mechanism provided by the market has yielded in importance to mechanisms of a more political nature, in which the emphasis is on problems of organization rather than trade. This development has been encouraged by neo-classical theory's misapprehension of the role of the state, and by problems of redistribution of income and wealth that are inherent in the functioning of any market economy.

Neoclassical theory attempts to resolve problems of equity through growth. Pointing to the role of individualism in highly competitive markets, it suggests that such growth is

optimal. Politics, on the other hand, proposes to resolve problems of equity by creating conditions conducive to the development of solidarity. In societies characterized by both inadequate functioning of market forces and a lack of solidarity, the development of a bureaucratic mechanism and an increasing need to introduce ethical considerations into economics were inevitable. There is thus a place in economics for ethics seen as the expression of value judgements or of a culture, and served by the various collective decision- making mechanisms established by society. One need only acknowledge that the very basis of economic theory is normative and that it is merely one of the many components of society. Should ethics then be assigned a universal value and also be approached from a positivist angle? An example of this can be found in the demonstration of the universal nature of human rights. If ethics is indeed an inherent feature of human nature, then an extra dimensions must be added to the hypothesis of rational behaviour. Otherwise, a positivist approach to values will result in their exclusion from the scope of economics, and ethical standards will then be relegated to the fields of theology or political philosophy. This must be avoided at all costs.

Therefore, in order to ensure ethics a lasting place in economic reasoning, the hypothesis of economic rationality should not be rejected – since the strategies consumers and producers use to maximize their utility and profits respectively reflect essential motives in human behaviour – but further developed. Economic agents act not only rationally but also emotionally. Emotional intensity then confers a moral dimension on economic and social actions and runs counter to scientific interpretations based on the principle of causality.

There is doubtless an unprecedented intellectual challenge in attempting to rethink contemporary economic theory along these lines; yet such an approach is probably one of the few that would allow economics to escape from its positivist impasse.

Methodological obstacles have to be overcome. Economics has only succeeded in disposing of the normative aspect through an abstract conceptualization of the workings of society, favouring a deductive approach. In order to obtain an non censored view of social reality, economics must open itself up to other disciplines. Yet an interdisciplinary approach is of necessity more inductive. In the field of labour economics, we refer to a study combining sociological and economic factors (Stolz, 1985) to a sociological one (Lalive d'Epinay, 1990) and to an economic one (Bürgenmeier, 1990b) concerning the Swiss case.

The puzzling fact about the Swiss labour market is the very low unemployment rate (Flückiger and alii, 1985). In a socioeconomic perspective, this characteristic is explained by the degree of political and social consensus reached in Switzerland. This consensus is based on a kind of social contract which refers to Rawl's theory (1972). The labour market is regulated by an institutional agreement that includes a negotiation process between firms and trade unions, under government supervision. The resulting convention applies to all labour contracts, even those that have been signed between non-trade union members. Therefore, the observed equilibrium close to full employment is not due so much to wage rate flexibility (which would appear to be higher in Switzerland than elsewhere), as to an institutional agreement that explicitly takes into account the idea of fairness. This approach has been codified in the values and symbols attached to work which also shape the difference between self-declared and officially registered unemployment. According to Stolz's study self-declared unemployment appears to be clearly higher than the one which is registered. Lalive d'Epinay's sociological study analyzes the change in the cultural value system of Switzerland and stresses the need to establish a new contract between individuals and society, and to redefine the state as well as the respective responsabilities of the public and the private spheres (Lalive d'Epinay, 1990, pp. 156-157).

At the same time, a new perception of unemployment is gaining ground. Instead of a failure, unemployment is seen as a new way of living which assigns a specific value to time allocation choices favoring the present. These new values are characterized by a hedonistic

individualism and by critical attitudes towards the authoritarian organization of labour. Lalive d'Epinay's survey also confirmes the crucial importance of future activities which allow self-fulfillment. This motivation can be satisfied by a combination of activities including work and leisure, but is not exclusively defined in terms of an allocation of time between both. In this perspective, unemployment will be reduced by a policy which disconnects personal income from working hours, either by guaranteeing a certain level of income, or by establishing a fundamental right to a direct cash payment. Time will not be money any more.

This sociological approach to unemployment clairly stresses the ongoing change in motivation to work that reduces the importance of economic factors in explaining the labour market. But if this evolutionary aspect of institutional change becomes so important, why are we witnessing a rise of non official labour markets precisely when the influence of economic factors is reduced by state intervention?

Our 1989 inquiry (Bürgenmeier, 1990b) in the building, agriculture and hotel trades of Geneva has shown the importance of illegal work skirting regulations through an underground labour market. Some individuals are liable to hold several jobs. There is high acceptance of this phenomenon by firms which believe that expelling illegal foreigners would adversely affect the Genevese economy. This expected negative effect puts the local government in a conflict situation. On the one hand, it is asked not to meddle with the labour market in order to allow the price mechanism to work unchecked; on the other hand, it should take steps in order to extend the institutional framework to the hidden labour market. This ambiguity cannot be removed solely on the basis of economic arguments. Our inductive approach points out that social aspects such as temporary, sometimes part-time jobs as well as the work of women are important factors on this hidden market, and that they contribute to more flexible attitudes towards the labour market. Therefore, in spite of official unemployment and state regulations, unofficial labour will expand astride with the rise of new motivations to work.

Concluding Remarks

The aim of this paper is not to condemn the economic analysis of the labour market, but to show the need for a broader approach that would take economics as a subset of the social sciences. This socioeconomic approach not only explicitly refers to institutions, but also to human behaviour extending beyond economic rationality. Changes in institutions and motivations explicitly take into account the passing of time, assumed away or treated in an ad-hoc way by economic theory.

On the supply side of the labour market, time is only expressed as a trade- off between income and leisure. On the demand side, time appears in the link made between the marginal productivity of labour and economic growth. Therefore, paying attention to time calls for an evolutionary approach. In a historical context, the social symbols pertaining to the labour market have changed and increasingly reflect the difference in situations between individuals. Individual characteristics also explain long-term unemployment, which therefore is not the consequence of a lack of search or a sign of discouragement (Flückiger, 1990).

However, a theory of time is still missing in economics. The time preference approach, namely in the accumulation of human capital altering labour qualifications (Becker, 1981), is exposed to criticism just like any neoclassical analysis: institutional aspects are neglected in so far as society is viewed as the sum of individual marginal adjustments (e.g. Arts, 1991; Hornik, 1991; and Wunderink, 1991).

Such a society has no identity, the concept of community is ignored, and motivations such as fairness cannot be analyzed in this framework. Thinking over the economic analysis of the labour market in terms of time therefore implies not only a recognition of the importance of institutional changes, but also a more complex view of human behaviour than the one suggested by neoclassical economic rationality.

Comment by Reinhard Tietz

General Remarks

Professor Bürgenmeier revealed some flaws in the traditional theory of labor market. He addresses many institutional and social aspects. He showed the path we must follow from the conventional normative economic theory with a utilitarian basis which we have to a richer descriptive theory of the labor market. My task is to present some counter-positions.

Whereas I agree in general, I think that the utilitarian approach can also handle sociological and institutional dimensions. I see the flaws of the normative approach more in its inapplicability to those real situations where the assumption of strict rationality cannot be fulfilled. Therefore we need in addition theories which are based on the assumption of bounded rationality. This is halfway between Professor Etzioni's "non-rational behavior is natural" (Etzioni, 1981) and the "homo oeconomicus". In such a theory, decision making and the coordination of plans is governed by a dynamic cybernetic process which needs time. Hierarchic goal- and need-structures control individual decision behavior. I will come back to this point later.

I do not take the position that theories based on the strict rationality assumption are meaningless. At least, they help to understand the strategic interaction between many actors. In the last decade there was a great come-back of game theory in modeling and analysing various economic situations. I think this was initiated by Selten's concept of subgame perfectness, which was ultimately based on experimental research (Selten, 1975). The picture of the homo oeconomicus is a useful type of abstraction and allows for definite solution concepts. A more realistic theory would loose its solvability and uniqueness.

There is one additional aspect of time still not mentioned in our discussion. The time of **education** is important for the labor market, its flexibility, and the changes in it throughout time. The mobility between various partical labor markets, separated by regional or qualitative aspects, depends to a large extent on the time invested in education. On the other hand we have the problem, especially at German universities, that students finish their studies too late and spend too much time on the pre-professional educational phase. Teaching how to manage and organize one's own time is a missing subject at universities.

Productivity

The problems involved in measuring global macroeconomic variables are always similar: also productivity is overlapped by intervening variables. Neverthelss, I think it is possible to isolate the most important partial influences on productivity by means of econometric methods to a satisfying degree of accuracy. In reality it is difficult to get precise information about marginal productivity. Thus, an explanation of the average productivity may have to suffice for empirical models. Since the marginal productivity is strongly connected with the average productivity, the latter influences the global demand for labor and the contractual wage rate also. On the other hand, a measurement of average productivity and of its changes would give sufficient information about the trend of marginal productivity.

I don't think that the decentralisation effect the new communication techniques on the working place, foreseen by Bürgemneier, will become very important. One should rather fear that the concentration in the cities will continue. The advantages of social contacts, of reputation and of better control may be reasons on both sides of the labor market which favor further concentration.

Unemployment

Hedonistic indiviudalism may be seen as a consequence of our education in economic thinking in terms of too simple models where individuals maximize their utility. The change of general values influences unemployemnt also. In this atmosphere unemployment is no longer considered as defamatory when it pays.

Too many social charges and too high costs are calculated on the basis of the officially employed workers and the burden, via taxes etc.,

falls on the firms which gives the wrong incentives to solve the problems of unemployment. There are enough unsuitable incentives to reduce such costs on both sides, for the employers and for the employees, by means of illegal contracts in the underground market. It is an important task for the future to develop a social system with better incentive compatible rules.

There is an additional aspect which has something to do with the failure of labor market policy. It is the unclosed gap between the mentioned normative and positive economic theory. The German economic policy in the seventies under Willy Brandt and Helmut Schmidt was based on the maxim: "Better 5% inflation than 5% unemployment!". The maxim was a conclusion of the theory of the Phillipps curve. By disregarding expectations about government's activities the theory became erroneous and the result was 5% inflation **and** 5% unemployment simultaneously.

The general reason for this disaster was the fact that the theory of the Phillips curve has only good **descriptive** qualities in the past, but was incomplete. **Explicative** aspects were missing and the theory had no **semi-normative** qualities. A theory-deviating recommendation derived from such a semi-normative theory can be only successful if it is given privately. The theory becomes wrong when it is no longer an "occult science" for a few subjects.

In some fields of Experimental Economics one has the possibility to investigate the semi-normative properties of descriptive theories of bounded rational behavior by means of simulations. I will not go into detail about these investigations which are related to the game theoretic equilibrium concept. The semi-normative properties ensure, e.g., that extremely aggressive behavior does not pay but rather is punished. The payoff function must be concave over the strategic variable. The reaction of other actors and the violation of individual's aspiration levels, low in value but high in the hierarchy, must be taken into account in economic models.

Experimental Investigations of the Labor Market

I constructed a complex dynamic macro-economic model with growth and business cycles where the coordination process of markets and relations were guided by mutual adaptation of aspiration levels. The substitutional relations between capital and labor is modeled by a putty-clay production function with endogeneous technical progress, leading to an elasticity of substitution lower than one. The computerized model was used to investigate experimentally labor market collective bargaining on contractual wage rates, contractual working hours, period of notice, and legal maximum weekly working hours. A distinction between **contractual** and **actual** wage and working hours in labor market models would deliver a more differentiated picture.

In this model the contractual working hours, which result from bargaining between labor union and employer's association, influence the potential labor supply as a multiplicative factor applied to the labor force. On the demand side similar considerations are made and deliver, along with the average productivity, a basis for the planned demand for labor, also taking the period of notice into account. The working hours planned by the firms are based on the contractual working hours and are limited upwards by the legal maximum working hours. The planned working hours are again modified in accordance with actual production requirements. Therefore, the resulting actual weekly working hours may deviate from the contractual ones and indicate overtime and short time work.

One important result of this experimental investigation was the "dynamic aspiration balance theory" which fulfills the above postulated semi-normative properties to a sufficient extent and also has a good explanatory power. In this theory the bargaining behavior is guided by dynamic fairness principles such as the "**aspiration securing principle**" which compares the aspiration levels secured by the opponent's offer.

That rather egocentric principles must be supplemented by fairness principles may be

derived from the theory of incomplete contracts. Fairness, as mentioned by Bürgenmeier, establishes confidence and thus save transaction costs. "**Relational equilibria**" are based on fairness. A relational equilibrium is a stable partner relationship in which no partner has a reason to search for other partners. There is no reason for search if similar and sufficient high aspiration levels are fulfilled on all sides. The concept of relational equilibria should be implemented in an improved theory of the labor market. In a relational equilibrium transaction costs, especially in the form of search costs on the labor market, are reduced. The missing information about other employment possibilities is one reason for a reduction of the mobility of employees. Since firms invest in human capital during an employment relationship, they are also often not interested in high mobility in order to save tranaing costs within a relational equilibrium.

Our experimental investigation were also concerned with *multivariable bargaining*. Some results may be of interest in this contect. Compared to pure wage negotiations, contractual working hours which result from multivariable bargaining are best explained by theories more simple than the "dynamic aspiration balancing theory", like the midpoint between the planned bargaining goals or the "planning difference theory". In such multivariable bargaining, one can differentiate the variables by the priority ranks attached to them in accordance with the personally felt importance. Working hours had on the average a **lower priority** than the wage rate but a higher one than the period of notice. The aspiration grid for working hours was less differentiated than that for the wage rate and neighboring potential aspiration levels fell more often on the same value. Thus, more simple theories are adequate for the explanation of behavior in the bargaining process. Fewer offers were changed with respect to working hours than with the wage rate. As consequence, in the final agreement the aspiration levels were less balanced for working hours than for the wage rate.

Reply to Reinhard Tietz's Comment

Professor Tietz states that he agrees in general but in thinking "that the utilitarian approach can also handle sociological and institutional dimensions" he is in perfect disagreement with my contribution.

He is right, however, in stressing the importance of time spent to education. The accumulation process of human capital is indeed curcial to the labour market, but then again time is considered as a production factor and not as an instrument for self-realization. A theory of motivations is still missing in the neoclassical approach to the labour supply. The bounded reationality assumption cannot be accepted as a compromise between non-rational behavior and the "homo-economicus" Rather, it contributes to a more pluralistic approach to economics, seen as a social, not as a natural science. From a methodological point of view, this can also be achieved by the transaction cost hypothesis or by the theory of justice.

Central to the socioeconomics debate about the functioning of the labour market is certainly the policy issue. Professor Tietz's reference to the Phillips curve illustrates this concern very neatly. But instead of insisting on the traditional trade-off between inflation and unemployment, he has to admit that the ongoing change in the value system in Western societies has also contributed to loosen the trade-off between unemployment and inflation, even though expectations-based theories try to reassert this link. Once again, these theories say nothing about the psychological and sociological origin of fears linked with risk and uncertainty.

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