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BUSINESS SURVEY DATA IN MACROECONOMIC RESEARCH AND PRACTICE

The subject will be related to my scientific interests in macroeconomics. It will be the role of business survey data in macroeconomic research and practice. The main point I want to make is precisely that the role in question should be better embodied in research on business cycle theory and in its applications. (...)

1. The needs as perceived by the evolution of business cycle research

Clearly, business cycle research needs to refer to empirical data. That may not have been obvious during the first part of this century, when the theoretical writings surveyed in the famous book of G. Haberler, first published in 1936, presented only qualitative descriptions and explanations of business cycles. But already in those times, it had become common to state that ... business fluctuations much varied, more even than could be explained by random shocks recurrently hitting the economies. Some economists had realised that a good understanding of this diversity required a close examination of data, probably also a more detailed analysis than was offered by general theories.

Many small research teams initiated work on empirical research projects about business fluctuations. But only two of those early projects could be pursued with sufficient energy and perseverance to bring significant contributions to business cycle theory. I like to quote first the project launched in 1930s at the National Bureau of Economic Research in New York. (...) The quantitative analysis of business fluctuations had begun and would later grow.

Before I mention the second major empirical project on business fluctuation initiated about at the same time in Europe, let me very briefly sketch the evolution of business cycle theory since the first edition of Haberler's book. (...) The advent of Keynesian theory and of aggregate demand analysis provided a unification of the prevailing explanations of business fluctuations. The little book published in 1950 by J. Hicks, adding occasional supply constraints to the multiplier-accelerator model, provided a widely accepted overall reference for at least two decades. Actually, it had no competitor for that function until publication in the early 1980s of the first articles arguing in favour of a real business cycle theory, which would extend the neoclassical theory of economic growth.

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Few economists endorsed the new theory, but many found in its methodology a way to build alternative models suiting their own views. We might argue that the set of the models so built now provides the overall reference, which replaced the Hicks' model. There is, however, one problem, namely the importance of the mounting flow of detailed research on such diverse factors as inventory accumulation, the scrapping of obsolete productive capacities, credit rationing, and so on. The largest part of this flow makes no explicit reference to an overall embracing theory and, in most cases, would fit into Hicks' approach broadly understood.

The second major empirical project to appear in the 1930s aimed at building structural macroeconomic models. Initiated by J. Tinbergen, it was later taken over by L. Klein who promoted it throughout the world in the 1950s and 1960s. In those years at least, structural models had the same Keynesian inspiration as Hicks' model. These models were sometimes used for research on business cycle phenomena. But they were applied mainly for providing macroeconomic forecasts and policy analyses. (...)

Looking at the empirical part of business cycle research, it uses, almost exclusively, the body of data made available by official statistical offices, mainly the time series of economic and social indicators, as well as series of national account aggregates. More and more often now, academic research in economics also uses cross-sections or panels of microeconomic data. (...)

I must say that the direct use of the results coming from [business] surveys is fairly rare (...). However, there is also indirect use when business survey results have served statisticians for the estimation of indicators or aggregates, such as productive capacity or even investment. (...)

The dynamics of business fluctuations much depends on the nature of market disequilibria, which appear along these fluctuations and which constrain opportunities, behaviours and adjustments. Clearly, this dynamics also depends on what are expectations and inventions, hence on how they are formed. Econometricians taking part in business cycle research knows these facts; hence, their models often contain variables about the nature of disequilibria or about private expectations. But they often also deal with such variables [whose] values were not directly observed: the latent variables, whose values are estimated simultaneously with the parameters of the model.

Actually, business surveys give information about those variables. Neglecting the information leads to a loss of efficiency. Perhaps, business survey results do not give quite [exactly] the values of the variables entering the model estimated by the econometrician, ... but, as long as the results bring relevant information, they should be used.

Moreover, there is in principle no reason, which would forbid improving the business surveys, so that their results come closer to the research needs. Indeed, this is an opportunity for me to advocate participation of academic users in the conception or revision of business surveys.

2. The needs of practitioners: market tensions and business anticipations

Economic forecasts and policy analyses often have to focus on market tensions and business expectations. The spontaneous evolution of the economy in the months and the years to come will much depend on what are present tensions and anticipations, and on how they are likely to evolve. The effects to be expected from alternative policies at the short-term horizon of one year or two will similarly depend on the diagnosis that can now be made about the business climate and about the market constraints firms are facing. Even the medium-term effects, namely the results after five years or so, will be similarly affected since, for instance, the degrees of capacity utilisation at such a horizon will depend on investments made in the near future and since the way in which investments will react to policy decisions will depend on the business climate and constraints when decisions will be made.

Macroeconomists working on forecasts and policy analyses, whether in government or in private consulting firms, are well aware of these facts, much better aware, it seems, than some of those working in academia. By the way, this is why Keynesian modes of thinking remained commonly used by forecasters and policy analysts, even at the time when it was fashionable in academic circles to discredit these modes of thinking.

My comment at this point should not be misunderstood. I do not want to disparage all the research work which was done in academia during the last two decades by new-classical macroeconomists. Some of it is quite valuable and brings irreversible improvements in our thinking. In particular, the way in which we think about the shocks hitting the economy has much improved. There is also improvement in policy analyses, [where] we now immediately think about feedback from a change in the policy regime to private patterns of behaviour.

Many such improvements are due to the work of new-classical macroeconomists. This must be recognized, even when we stand firm in saying that market disequilibria exist and are often important, or that we cannot have full confidence in the way in which most rational expectation models describe the formation of private expectations.

Actually, even though Keynesian modes of thinking remain valid in these respects, it does not mean that the tools used in the older days for computing forecasts or policy assessments were perfectly suited. For instance, the systematic use of adaptive expectations may also create problems. (...)

Another imperfection of those models [is that] they took too little advantage of business survey data. (...) It is now formulated with respect to structural econometric models, the main tool at the disposal of macroeconomic forecasters and policy analysts. The teaching about these models seems to completely overlook the fact that business survey data contain information that would be useful for practitioners. The data base of structural models is assumed to contain only time series of the values taken by traditional statistical indicators and aggregates. Thus students may even ignore that other kinds of data, provided by business surveys, also exist.

Actually, real practice is not as deficient in this respect as is the teaching of practice. First, the specification of some structural models involves variables whose

value is meant to come from business surveys. (...) Second, when using their models in order to make forecast, practitioners often bring adjustments either to the results derived from the model, or even to the model itself before it is used for the calculation of the projection. Such adjustments are often due to the information coming from business surveys. For instance, the projection obtained from the model predicts a level of investment which does not agree with what is announced by an investment business survey and the economists in charge of the forecast change the value to be given to future investment so that it comes closer to what the survey announced. Or even, these economists revise their model because they know that the situation when the forecast is being made is special in some respects. For instance, this is the time of a credit crunch and the investment equation gives little weight to the level of firms indebtedness; revising the equation so as to increase this weight then appears to be wise.

3. Business surveys for the characterisation of market disequilibria

By a market disequilibrium [we usually mean] the fact that [there is a] degree of tension or [inadequacy] between supply or demand. Concerning the markets for goods or services, this means that buyers are more or less rationed because they have some difficulty in finding what they want to buy. On the other side, sellers experience changes in their outlets; producing firms have to adapt the levels of their output or their inventories, usually both. Concerning the market for labour, some workers are unemployed [while some] employers experience difficulty in finding the people they would like to recruit. Concerning the credit market, banks have more or less tight standards in evaluating the solvency of clients asking for loans.

The concept of market disequilibrium extends beyond differences in the quantities desired for exchange respectively by suppliers and demanders. There are also simultaneous price disequilibria, because many prices are somewhat rigid. The typical case of a price disequilibrium is when the profitability of production is abnormally high or low. Market forces then stimulate a correction, down or up, but it will come more or less quickly depending on how other factors evolve acting on prices, wages and interest rates.

Asking market participants [about] disequilibria they were experiencing in the markets was the dominant aim of the initiators of business surveys. (...) The information so collected was and is still useful for both business analysts and macroeconomists. Broadcasting the information is therefore useful. But what should users do with it? In order to discuss the answer to this question I shall limit attention to macroeconomists: what should they do with the information on market disequilibria which comes from business surveys?

The first and obvious answer is that they should take account on it. This is so obvious that no one would think of giving this answer if there were not quite a few macroeconomists who take no account of the available information on the existence of market disequilibria. (...) I could even quote textbooks, meant to teach macroeconomics, in which the concept of a market disequilibrium does not appear (the fact does not speak in favour of the academic profession).

The second answer is that macroeconomists should use the information coming from business surveys in order to distinguish between various combinations of market disequilibria. For instance, one combination would be: excess supply on both the markets for goods and for labor, equilibrium on the credit market, normal profitability. Actually, this combination was much studied by the Keynesian literature. In order to designate it by a simple expression, we can speak of Keynesian unemployment. Another combination would be: excess demand on the market for goods, excess supply on the market for labour, equilibrium on the credit market, abnormally low profitability; we can then speak of classical unemployment. Macroeconomists would then take the habit of using a typology of combinations of market disequilibria. Research would study each one of these combination. In applied macroeconomics, practitioners would use the typology for their diagnoses, forecasts and policy analysis.

There is a still better, third answer to the question, namely to study the factors explaining the nature and intensity of disequilibria. The result of this study would be, on the one hand, a theory of market disequilibria and, on the other hand, a new family of structural macroeconomic models. Let me [make] two comments about structural models of this new family. First, they have to be dynamic, as may be already suggested by the word "disequilibrium." Second, structural models now in use recognise the existence of market disequilibria, but in a rather loose way. (...)

Research has been ..., but the study did not reach the stage where we could say that a full theory of market disequilibria has been established and a new family of immediately usable structural models has been delivered to practitioners. I may even add that, faced with serious difficulties, the study marked a pause. Undoubtedly it will have to be resumed, but probably from an approach which will have to dodge part of the difficulties in order to cope with the main remaining problems.

However, it is clear that the information gathered by business surveys about market tensions or slacks will play a significant part in whatever approach will be taken in the future by the resumed research effort. This information was already embodied in some relevant macroeconomic work where market disequilibria were identified. For instance, such a work concerned European unemployment. We should draw the lessons of this experience. (...) Moreover, in order to assist in the evolving methodology of structural models, we should welcome a research program on how business survey results on market disequilibria are being already used in forecast and policy analyses, and how they should best be used in the future.

4. Business expectations and intentions as captured through surveys

Expectations are undoubtedly important. I can quote here R. Solow writing that all economists "would agree that the response of the macroeconomy to disturbances will depend on the beliefs, perceptions and expectations of participants." But he adds: "I would not know what set of statements about these things deserves to be included in the core of usable macroeconomics. I feel acutely uncomfortable with this fudge factor that is capable of having drastic effects but is so conjectural that it can be used to

explain just about anything.”¹ The two last sentences are provocative and certainly too extreme. But they are welcome in order to challenge the dogmatism of some writers and to cool down the subsequent naïve enthusiasm of some of their readers.

There are indeed a number of reasons of judging that the scope of validity of the rational expectations hypothesis is much more narrow than the scope of its presence in modern theoretical literature. (...) First, [if] embodied in a model, the hypothesis means that actual expectations have to be consistent also with all other hypotheses of the model. Second, the hypothesis was not found to perform so well empirically when econometricians tried to test it independently of the models in which it could be embodied. (...)

However, it is noteworthy that econometricians found that the adaptive expectations hypothesis, the only existing competitor with the rational expectations hypothesis, did not either perform so well empirically. Faced with the dilemma resulting from these econometric findings, modern builders of structural models, who know how to technically deal with rational expectations, usually limit to a small number the variables by which rational expectations appear in their models. Some model builders also provide two versions of their model, one with rational expectations, the other with adaptive expectations only. Users are then in a position to know when and how the choice of the hypothesis about the formation of expectations affects the forecasts or policy analyses.

Aware of this context and of some others of its features, we may wonder whether present business surveys give, about expectations and intentions, the data which would best fit the needs of researchers and practitioners. I am not a good judge on this question because my acquaintance with these surveys is partial or dated. What I am going to say should therefore be understood as queries rather than as recommendations.

I remember to have read studies showing that intentions collected by surveys of households and firms were fairly imperfect predictors. For instance, intentions about the amount of investment to be made a year later turned out to differ substantially from investment which were really made by the respondents. There is a natural explanation of the fact, namely that the intentions were conditional and that conditions changed in the meantime. Now that we have a large experience with data on intentions, can we say that this explanation holds? Or is it rather that answers about intentions are made without care and are subject to a large amount of insignificant noise?

I also remember to have been told that answers about expectations could reflect the current prevailing “business climate” rather than real forecasts about the future. This should be disturbing for someone who, like me, is advocating the use of business survey data in macroeconomic research and practice. In our investigations and applications should we often introduce a variable meant to represent the perceived business climate? How should then the variable be exactly defined and measured? Which hypotheses should we test about the effect of this variable on decisions taken by

¹ In the symposium „Is there a core of practical macroeconomics that we should all believe?“, *American Economic Review*, May 1997.

[economic] agents? Would the principle of rational economic behaviour suffice in order to suggest the proper hypotheses? Or should we also turn to psychology?

Common sense suggests that this, up to now loose variable called here “perceived business climate” matters mainly for answers to questions about the economy in general rather than for expectations about what specifically concerns the respondent: his or her earnings next year, the prices next year for the goods or services sold by the firm, and so on. But can we rule out off hand the idea that the mood of respondents might be sensitive to the business climate and that this might bias his or her answers even to specific questions on the future values of variables about which he or she should be well informed?

The various queries I just listed suggest that the introduction, in macroeconomic research and practice, of business survey results about intentions and expectations may be less direct and simple than the wording of the survey questions would itself imply. A collaboration between survey specialists and macroeconomists may be rewarding in clarifying the issues. Within such a collaboration it would be good to also wonder whether business surveys could not more often be used for collecting data about anticipations up to longer horizons than is now common, i.e. up to medium-term horizons which are so challenging for us in research and practice.