Lecture notes ECON4630, Spring 2006

Warning: This course on "Macroeconomic policy and models" has not been given before and may well be considered as an experiment.

Lecture #1: Introduction

1.1 What is it all about?

Some words about the intensions underlying the course. In the web announcement of the course the objective is given as

> The students should gain insight into major aspects of the macroeconomic policy-making and the use of models in a historical and comparative perspective from early post-war planning to the liberalized economy of today. The students should grasp the main ideas in macroeconomic model conceptions applied in recent Norwegian history and become better prepared for understanding macroeconomic policy issues in a broader perspective including institutional issues and the role of models for macroeconomic policy.

There is hardly any need for emphasizing that macroeconomic policy is an important issue for the functioning of modern economies and therefore also in our study of economics. Macroeconomic policy is a controversial topic in the sense that policy recommendations in given situations may differ. They may differ because the underlying conceptions of the theoretical forces influencing the state of economic affairs differ, or because the current facts are read differently. Policy recommendation may differ even for other reasons, say, based on opinions as to whether policy should be made in terms as discretionary changes or by rules.

The term ‘macroeconomic model’ may be used in two different meanings. Sometimes we refer to some person’s or some school’s macroeconomic model, and we mean how that person or school thinks about how the macro economy functions. On the other hand we use macroeconomic model as a denotation for the numerical embodiment of the information we have or want to use in making forecasts and/or designing policy, typically formulated as a system of equations with numerically given coefficients. How the coefficients have been estimated we need not bother about here. It is in this latter sense that we use the term ‘macroeconomic model’ here. The other sense we call instead someone’s macroeconomic theory or macroeconomic conception.

The macroeconomic model as a numerical device, whether determined by highly refined or less refined methods, is naturally to be seen as derived from a macroeconomic conception, from an overall picture of how the macro economy functions. But the macroeconomic model is usually to be considered as poorer in content or simpler in it representation of the interrelations of the economy than the underlying macroeconomic conception.

Macroeconomic models for policy analysis are widely used by policy-making bodies and other actors on the policy arena. We can date this development roughly as having started in the 1960s. There were some pioneering efforts earlier than that and in some countries the development of models did not really get under way until later.

In the beginning macroeconomic models were given a lot of attention in the academic profession, but not any more. Very few academic economists nowadays work on constructing models to be used for actual policy purposes. Models are not much discussed in textbooks. Models lost prestige, primarily in the 1970s. The ability of models to forecast reliably is doubted. In short, macroeconomic models do not have much status in the academic profession. We may wonder why and how that can be the case when models are used more than every by actors taking part in the determining or influencing economic policy.

This course thus tries to look at macroeconomic policy and macroeconomic models in a historical perspective, taking Norway as an example. This gives the course a Norwegian dimension, comprising also some elements both of economic history and the history of economics in Norway. This may or may not be of the same interest for students from other countries. It would of course have enhanced the course if we could have had comparison of national experiences. If we have opportunity to include in our discussions something about other countries, the better it would be.

The retrospective time horizon is roughly back to World War II. This is in fact the longest time horizon we could have as macroeconomic policy and models do not go further back in time.

Then, to get started, let us touch upon some background elements.

How old is *macroeconomics*?

The term 'macroeconomics' can hardly be found in print in English before World War II.[1] After World War II it quickly was taken into use in the meaning it has today. The term was introduced in Norwegian in Frisch's lectures on macrodynamics in 1934, although Frisch favoured terms were macrodynamics/microdynamics. In Frisch's very famous article from 1933 explaining the emergence of business cycles (Frisch, 1933), he provided a definition of this pair of concepts that may well be regarded as the first attempt to define macroeconomics:

> When we approach the study of business cycles with the intention of carrying through an analysis that is really dynamic and determinate in the above sense, we are naturally led to distinguish between two types of analysis: the micro-dynamic and the macro-dynamic types. The micro-dynamic analysis is an analysis by which we try to explain in some detail the behaviour of a certain section of the huge economic mechanism, taking for granted that certain general parameters are given. (…)
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> The macro-dynamic analysis, on the other hand, tries to give an account of the fluctuations of the whole economic system taken in its entirety. Obviously in this case it is impossible to carry through the analysis in great detail. … we must deliberately disregard a considerable amount of the details of the picture. We may perhaps start by

[1] I believe the term 'macroeconomics' before World War II was used in print only in Tinbergen (1939) and Lindahl (1939). In both it was used tentatively, reflecting we may presume that it was uded in oral discussions. During World War II there were some occurrences in journal articles. After World War II it was used very prominently in Frisch (1946), marking his return to the editorial chair of Econometrica, and thereafter came into common use. REFERENCES TO BE PROVIDED

> throwing all kinds of production into one variable, all consumption into another, and so on, imagining that the notions “production”, “consumption”, and so on, can be measured by some sort of total indices. (Frisch, 1933, 172-173).

Thus Frisch defines macroeconomic relations as (tentative) attempts at establish valid relations (formulated mathematically) between large aggregates in the economy. This fairly loose definition is largely what we shall stick to. There are other ways of looking at macroeconomics in the literature.

But more important than the term is origin of the concept itself, the content of macroeconomics. It is generally considered that John Maynard Keynes’ *The General Theory of Employment, Interest and Money* from 1936 constituted the foundation of modern macroeconomics. Keynes’ book did not arrive out of the blue. The discussion in Great Britain of economic problems, in which Keynes was an active participant, is an important background for the book and some of the ideas it launched may be found there. Others had had similar ideas, the so-called Stockholm School of 5-6 Swedish economists, is an example. The critical tone in the book about the ideas of his predecessors, which Keynes called ‘classical theory’, but as we would rather call ‘neoclassical theory’, is very notable. But what was Keynes’ main message in this book, what was his criticism of his earlier economists, and why did he call it ‘the *general* theory’?

We can note than Keynes probably was rather sceptical about catching the essence of his macroeconomic conception in a system of equations. The simple Keynes model is not found in Keynes book, at least not directly. Keynes was definitely sceptical to attempts at using estimated models for policy discussions, as apparent from his highly critical review of Tinbergen (1939).

How old are macroeconomic models? If we talk about models a macro economy formulated as system of equations and with numerically determined coefficients menat to be realistic, there are a couple of examples before World war II, constructed by Jan Tinbergen. Frisch (1933) may have inspired Tinbergen’s effort, Frisch set up a small equation system guessing at coefficients and gave the idea of representing a macro economy as system of equation publicity, as this paper was widely read. Frisch’s model can hardly be called an empirical model, but Tinbergen’s model were empirical.

When and where did national accounting originate? In the publications of Statistics Norway we can find national accounts figures back to 1865, what does that tell us about when national accounts originated in Norway? Really nothing, as the national accounts back to 1865 were constructed in the 1950s. National accounts may largely be considered as an idea with emerged in the 1930s in different countries. There had been pioneering attempts earlier. The countries in the forefront with regard to developing actual national accounts completed such accounts around WWII or a little later. Norway is among the pioneering countries, this is to large extent due to the pioneering efforts of Ragnar Frisch in the 1930s at his Institute of Economics (the forerunner of the Department of Economics).

The course will hopefully give some understanding of the interrelations between macroeconomic theory, macroeconomic policy and macroeconomic model, on the background of the actual economic situation. Both theory, policy, models and economic situation change over time, but hardly independent of each other.

The course will start out by looking at the Norwegian economy in 1945-46. There are a number of pages on the reading list about this and I do not recapitulate that in the lectures, but I will advice that it is read thoroughly. Trond Bergh is the foremost expert among historians on the economic policy of the Labour Party. One can read his paper and have in mind questions like: “Did the Labour party after 1945 have an ideological motivation for economic planning?” or “What were the reasons for the changes in the comprehensiveness of economic planning in the 1950s?”.

One will realize from Berg and Lange & Pharo that one can not easily separate the economic issues from politics, ideology and other influences. Economic policy is put into effect by the political system and in the political system parties play a key role, at least some parties. It thus is clear that we cannot explain the history of economics and economic policy so to say entirely within the economic sphere, so to say determined from the economic situation. There are too many degrees of freedom. To explain the choice of policy we need to understand politics, many would say it is more important to understand the political choices than the economists’ assessment to understand and explain what happens. .

To understand the setting against which policy was made in the immediate post-war situation requires that we are able to imagine what the situation was like after the liberation in 1945. But not only that, policy was made also on background of the experiences of the interwar period, and indeed of the experiences in the war itself. See Bjerkholt (2005) about the economic-historical context, as given in the table from Maddison, and also about experiences from the war in UK and USA.

The course as a whole is an easy course, I think. Perhaps it ought to have been redefined as a course that could be taken also by bachelor students. It does not require much background apart from relatively elementary macroeconomic theory, some maturity in economic reasoning and an interest in history.

The most substantial parts of the course are:

1. An introduction to the theory of economic policy and the ideas of Tinbergen, Frisch and a second Norwegian economist, Leif Johansen. , as it was originally was called by Jan Tinbergen, or macroeconomic planning as it was called by Leif Johansen in the book on the reading list.

2. An introduction to the two most important macroeconomic models used in Norway in the last two-three decades, the MODAG model and the MSG model. In fact it will be an introduction to three models, also to the model framework prior to the MODAG model, although there is nothing on the reading list about this. It is hardly an exaggeration to state that one or both of these models have been used in analysing all major issues in this period. Both of them were and are still operated by Statistics Norway. Both may be considered as rooted at the Department of Economics, particularly the MSG model.

It has been difficult to choose papers for the reading list for two reasons. First, I would have liked you to read much more background material. Secondly, many of the most natural sources to draw on are available only in Norwegion. In that regard I still have an unsolved problem.

1.2 Norway 1945: The emergence of post-war policy

At the liberation the Norwegian authorities were facing very challenging tasks. The German occupation had severe consequences for the Norwegian economy, although the losses in human lives and material costs were less than in a number of other occupied countries. The Norwegian economy had functioned during the war, but growth and development of the Norwegian had been neglected, the stock of capital had deteriorated, and there were war damages. The German occupational authorities had initiated large-scale building works for military purposes and had purchased large amounts of supplies in Norway, paid for by printing Norwegian currency. The potentially inflationary effects of the liquidity thus injected into the Norwegian economy, was suppressed through strict price controls and rationing. At the liberation the excess liquidity represented a threat of severe open inflation. At the liberation there was a severe immediate employment problems as people returned from abroad etc. while the industry was ravaged by war and disorganized and because of lack of raw materials had big problems maintaining employment. A positive element worth mentioning was the merchant marine, which had been employed by the allies during the war and had earned a substantial amount of foreign currency.

An interesting comparison is with the transition countries of Eastern Europe and the former Soviet Union. For the transition countries it was in a sense better defined from the start where they were going, as most of them oriented themselves towards Western Europe (EEC/EU) at an early stage). A marked difference in strategy in the transition period is the emphasis on stable living standard in Norway (see below), versus the deterioration of living conditions that happened in all the transition countries.

Like in many occupied countries politics did not pass smoothly back to the former order, but a political reconciliation was needed. In Norway it took the form of an interim broad coalition government that came into power in June 1945 and went out after the first post-war elections in October the same year. This five-months interim government made a number of important decisions:

1. The system of direct controls inherited from the war years was to be up held for the time being.
2. In price policy a stabilization of the cost of living index at its 1945 level was aimed at.
3. The parity rate was fixed in conformity with the price stability goal at 1£ = 20 kr.
4. A system of forced arbitration in wage conflicts was aimed at.
5. A monetary reform was carried out, but too timidly to have much effect upon liquidity.
6. Steps were taken to achieve from 1946 onwards sizable budget surpluses.

One important issue remained for the incoming government, namely the monetary policy. In January 1946 a policy of cheap money was declared as the discount rate was lowered to 2.5 %. These decisions constituted the basic economic environment in the early post-war years, usually referred to as the *stabilization policy* or *stabilization line*.

The economic policy in the early years, say up to 1952, was on this background was based upon the following ideas:

- To achieve high investments and high growth and thus safeguard the employment level and the reallocation on the labour market, it was necessary to keep demand high.
- High demand meant a high pressure of demand and suppression of inflation by means of quantitative and price regulations.
- A gradual reduction of the overhang of demand pressure was to be expected as increased production improved the supply situation, and as a result of a tight fiscal policy and the liquidity reduction following from an import surplus

What were the alternatives to this policy given? The situation could have been easier if the reduction of liquidity in 1945 had been more thorough and not flawed as it was. Apart from this, the policy may have been perceived as opening very little room for choice.

The stabilization line came under pressure both from wage increases which were far from completely controlled, and also, and more important, from increase in international prices. Then followed the devaluation in 1949 and the price wave following the Korean war in 1950. The stabilization line was given up. In a sense natural as the main reason for it was based an assumption that turned out false.

The excess demand was gradually reduced in a fairly successful way. It took longer than initially assumed. At the end of 1949 there was still rationing of a wide range of goods, e.g. meat, butter, cheese, sugar, coffee, chocolate, cocoa, clothes, textiles, cars and, indeed, dwellings. The excess demand was by and large removed in 1950-52 partly as a result of high taxes and the fact the extraordinary “hunger” for goods had been satisfied, and finally as a result of the price adjustment the income distribution shifted to the disadvantage of wage earners.

Rationing and suppressed inflation situation is prone to lead to black markets, rent seeking and corruption, of which there may seem to have been less in Norway that in similar situations in other countries, whatever the cause may be.

The results with regard to employment were by and large very successful. Open employment disappeared very quickly. Private consumption was held low by taxes and regulations, government consumption was also reduced somewhat after the initial expansion to provide room for private investment. Thus while excess demand created obvious problem for stabilization, it turned out to be a great success for the reconstruction and growth policy in the initial phase.

The initial currency reserves were quickly used up and the import surplus increased in a way that some found threatening for the stability. At this stage the Marshall aid came in. Although the total aid received by Norway financed not more than 7-8 % of the total net investments 1946-55 this may understate the importance of the aid.

But to put this policy into practice required an effort that only gifted and inventive economists could do and this is were the newly invented “national budgeting” came in as a very useful tool.