Macroeconometric modeling in French administrations and the foundations of the École de la Régulation: a retrospective study.

Loipa MUNIZ DUARTE
# I- Macroeconometric Modeling in French Administrations Between 1966 and 1974

<table>
<thead>
<tr>
<th>INSEE</th>
<th>Direction de la Prévision</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIFI</strong></td>
<td><strong>DECA</strong></td>
</tr>
<tr>
<td>• Michel Aglietta (Division des Programmes de l’INSEE)</td>
<td>• Bernard Billaudot (Division des comptes et du Budget)</td>
</tr>
<tr>
<td>• Medium term forecasting</td>
<td>• Short term forecasting</td>
</tr>
</tbody>
</table>

* Schéma théorique d’Accumulation et de répartition / Theoretical Scheme of Accumulation and Distribution
Models built at the French administrations take inspiration from Keynesian macroeconomic models but propose alternatives approaches:

- **FIFI** => “Competitioned economy” approach (théorie des économies concurrencées)
- **DECA** => ”firms’s self-financing behaviour” approach

STAR was an attempt to introduce into French administration the Cantabrigian accumulation and distribution analysis - mainly from the work of Nicholas Kaldor and Joan Robinson but also from that of Michal Kalecki.
Two reasons explain our interest on the STAR model:

1. The GRM calls into question the neo-Keynesian approach used in macroeconometric models as a solution to build a short-medium forecasting model. Instead, the GRM embrace a post-Keynesian approach.

2. The confrontation of the model’s forecasting results with the empirical data in 1973 encourage its own modellers to overcome post-Keynesian approach. The wage/profit ratio instability observed argue to integrate the transformation of institutional conditions in the dynamic capitalism as a main cause of 1970s crisis.

STAR model is one of the first connections between post-Keynesian macroeconomic modelling and the Regulation School

Creation of GRM (fall 1970)

2nd World Congress of Econometrics (Sept, 1970)

1971

1st Short-Medium Model Project DECA-FIFI

1972

2nd Short-Medium Model Project STAR

official phase of discussion DP-INSEE-CGP Juin-sept 1972

1st Version (Mai, 1972)

2nd Version (Sept, 1972)

Final version (Juillet, 1973)

1974

Publications
2.1- OFFICIAL PHASE OF DISCUSSION ABOUT THE STAR MODEL (DP-INSEE-CGP)

The debate highlights important criticism about the model’s structure and his theoretical approach.

1. The economic agent’s behavior as a “confrontation” between social groups at the macroeconomic level

   - According to Edmond Malinvaud, director of the DP, STAR offers “a new economic theory, different from Keynesian approaches, FIFI and planning work in general” (GRM, Projet de compte rendu de la réunion court-moyen terme intégré du 2 juin, p. 1, memorandum [number unknown], June 1972, box B0052258.)
The absence of a production function and the reject of the Phillips-curve relationship

- Jean-Pierre Pagé, economist at the CGP, explains that « the interest of a production function lies in the description of a demand for employment [...] via the wage-price-unemployment relationship. » (GRM, Compte rendu et compléments à la discussion DP-INSEE-CGP du 7 juillet 1972 sur le chapitre II-B "Répartition des revenus et détermination de l'emploi", pp. 2-3, memorandum n° 232, July 1972, box B0052258)

- Y. Ullmo, head of the Economic Department of the CGP, highlights that the eviction of the production function leads to mixing the economic and structural aspects. The model does not describe a technical link between capital and production and foregoes the indicator of "strain on production capacities" (GRM, Compte rendu et compléments à la réunion DP-INSEE-CGP du 16 juin 1972 sur le projet de modèle de court moyen terme, memorandum n° 223, June 1972, box B0052258).
2.1 - OFFICIAL PHASE OF DISCUSSION ABOUT THE STAR MODEL (DP-INSEE-CGP)

3. The implicit pricing mechanism

- Ullmo considers that the implicit pricing mechanism makes believe that “prices [have] no influence on the rate of profit.” (GRM, Compte rendu de la réunion INSEE-DP-Plan sur le chapitre II/A. (Investissement, autofinancement, et structure financière des entreprises.), memorandum n° 228, juillet 1972, box B0052258)

- According to M. Pelletier, economist at the CGP, this mechanism complexifies inflation analysis (Ibid.)

STAR is outside the theoretical consensus which structures macroeconometric modelling at this period.
The GRM use the STAR model to analyze the evolution of growth for the period 1955-1972. The model points out several "stylized facts":

- the contraction of wages in the added value,
- the decrease in consumer spending as a part of GNP,
- the expansion of the rates of consumer debt,
- the rise in the rates of company profit,
- the acceleration in the rates of capital accumulation.
3. FORECASTING RESULTS

Cyclical movements and growth depend on distribution evolution.

Combining Robinson’s and Kalecki’s approaches, the GRM formalize interconnection between profit and capital accumulation.

- At a given level of capital accumulation, there is a potential rate of profit on which entrepreneurs base their expectations. In return, the rate of profit directly influences the rate of accumulation.
- Investment depends on profit level and on the access to credit which is also constrained by the firm’s financial situation.

Changes in the wage-profit ratio shape investment decisions.
3. FORECASTING RESULTS

Consequences of the oil choc to the GRM project:

“[The model] described an endogenous recovery. Profits were contracted but he described the recovery as in previous small cycles. However, it was not an earlier cycle, it was a lasting change in the parameters, in particular in the formation of income. It had to be recognized that the model was unusable in forecasting. The whole issue at the time was energy-work substitution. Without a production function we were poorly armed.” (Interview with Robert Boyer, May 2019)

However,

- According to Malgrange, “any other model would have failed”
- The model provides an original interpretation of the inflationary phenomena
The GRM’s modelling project goes through several stages between 1970 and 1974

Starting from the analysis of French applied models, the project change of orientation in 1972. The neo-Keynesian approach is rejected in favor of a post-Keynesian framework. Forecasting results highlights the limits of the model and encouraged its own modellers to extent theirs researches on institutional changes impact on accumulation. A new intellectual community is created at the CEPREMAP from 1975.

The STAR model experience argue cooperation between post-Keynesian macroeconomic modelling and regulation theory.
THANK YOU