L’impact potentiel de l’intégration régionale sur la croissance : une méthode simple appliquée aux Unions de la Zone franc

The potential impact of regional integration on growth: a simple method applied to Franc Zone Unions

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A topic referring to Jaime

- Our first meeting in Washington 1985 (with Bela) on the impact of CFA monetary unions followed by an exchange in *World Development (*1987, Jim, with Shanta, 1988, we, with P.Plane), and the discussion of a collective book on FZ (*SDC*, 1988)

- Works of Jim on *New Dimensions in Regional Integration* (1996, Ed. with Rodrik), preceded by papers (in *RED,* 1992…) with Montenegro and Panagariya, enlightening its political dimensions (« preference dilution and institutional-design effects ») and our attempts for finding illustration in ZF arrangements (*RED*, 1992)

- Collaboration with Cerdi on the assessment of consequences of 1994 CFAs devaluation, through CGE modelling, ex ante and ex post

The origin of the issue here addressed

- A question raised by the Finance Ministers of FZ, to be answered next week: what are the expected growth gains of a reinforcement of regional integration in the FZ?
- A large report prepared by 20 people (5 in the room) to survey the various ways by which RI can be enhanced
- But anxiety as for assessing how much additional growth
- Why? 24 years ago Cecchini report tried to assess « the costs of non-Europe », an evaluation huge, but much debated, in particular for a rather static methodology, and leading comments to underline the need of looking for the dynamic effects of integration

Some lessons of our previous works and the report, explaining why assessment is difficult (ex ante, even more than ex post)

- RI is multidimensional and not only trade integration:
  - monetary integration is essential for trade integration, and for financial integration as well (in FZ monetary unions prior to custom unions)
  - other aspects of deep integration essential in Africa (infrastructure, business rules, sectoral policies..)
- RI as decided differs from RI as implemented: large gaps, mainly in trade and fiscal matters, due to lack of political will and bureaucratic inertia, enlarged by traffic insecurity
- RI may improve policy and governance, and is likely to lower the occurrence and the damage of conflicts, in particular in Africa

How to overcome these difficulties?

- The method proposed: a global evaluation of the growth impact of a full integration, unlike an examination of the impact of specific measures taken to reinforce regional integration
- Full integration would mean that all the member countries are as if they were only one country (one market, one policy)
- Each country would then fully benefit from the union size, through a larger population size and a lower vulnerability to external shocks (scale economies and risk sharing)

Implementing the method

- Growth regression estimated with GMM on a large sample of developing countries and over 7 five-year periods (1975-2010)
- Including only factors supposed to be roughly independent of policies (and integration)
- Among which are the population size (in log) and the structural vulnerability (proxied by export instability), which will be modified at the country level in a second step according to the perimeter of the union
- Other (usual) factors include: initial income pc, population growth, child mortality, rainfall, terms of trade, oil rent, IDE to GDP ratio, all significant

Two size-related factors of economic growth…

- Two factors related to size appear to be robust determinants of growth in many growth regressions, for well established reasons
- Population size (+), due to scale economies in various fields, economic and administrative as well, possibilities of efficient diversification for the domestic market, then the export market
- Export instability (-), due to its effects on the rate and, even more, on the productivity of investment, and on fiscal stance (risk and asymmetry effects)
- These two factors are deeply modified by a full integration, which enlarges the domestic market and the perimeter of risk sharing (labor and capital mobility, fiscal transfers, …)

Calculation of the gains

- For each country member of the union, calculation of the increase in the population size (in log) and the decrease in export instability corresponding to the difference between the union and the country levels (export instability of the union is that of the exports out of the union)

- To estimate the potential gain, these changes are multiplied by the coefficients of the previous regression

- Estimated coefficients: 0.4 for the log of Pop and -0.074 for the export instability index (close to coefficients found in the literature) (coefficients slightly different when the variables aid and conflict are in the regression: +0.56 and -0.05 respectively)

FERDI

Results obtained for FZ unions

weighted average annual growth rates and gains of the member countries measured on 7 five-year periods from 1975 to 2010

	UEMOA	**CEMAC**
1) Observed rate of GDPpc	0.3	0.6
2) Estimated rate	0.2	1.2
3) Potential rate	1.8	2.8
4) Potential gain = (3)-(2)= (5)+(6)	1.6	1.6
5) From larger population size	1.2	1.3
6) From lower export instability	0.4	0.3

Comments and caveats

- Significant average gain: between 1.5 and 2%
- Mainly due to broader population basis and to a less extent to greater stability
- Limited sensitivity to the estimation of the coefficients of the two variables (population coefficient higher, not lower when China and India are out of the sample)
- But very rough estimate
- Anyway , supposing that all the measures are taken and applied to implement a full integration

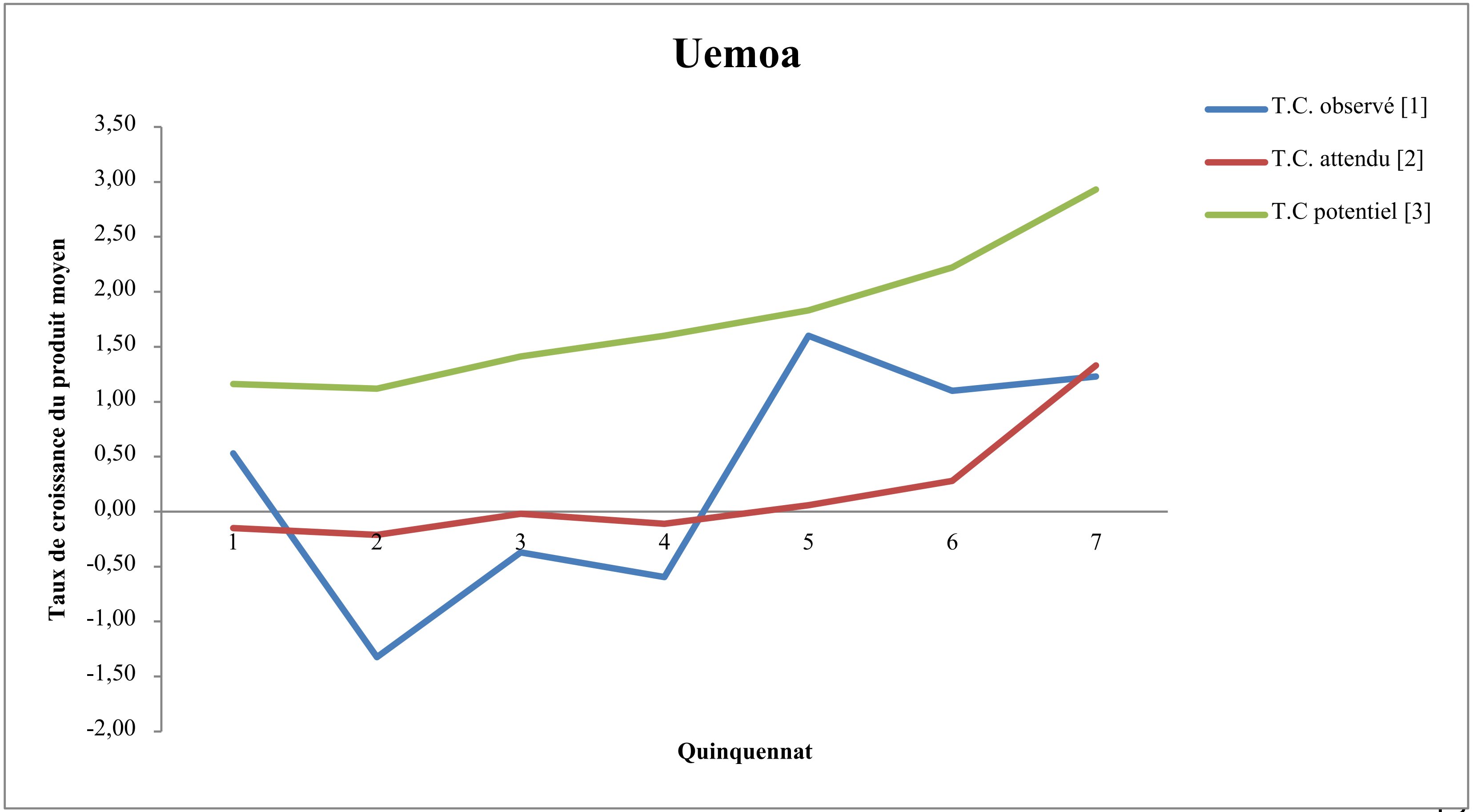
Distribution of gains among countries

- Higher gains in small and vulnerable coutries (eg. Guinée Bissau: 3pts)
- Lower gains in the larger and less poor countries (eg Cameroun, Sénegal, Côte d'Ivoire, around 1.7)
- Results consistent with the finding of a conditionnal beta convergence within the unions, in a model differentiating convergence intra-union and convergence extra, estimated by the same way that the previous model
- Partially opposite to the results obtained (from the union membership) for the impact of initial diversification on trade of manufactured products in a gravity model
- But consistent with this model when it assumes an improvement of infrastructures , making their level more similar within the member countries: major benefits for landlocked and poorer counties

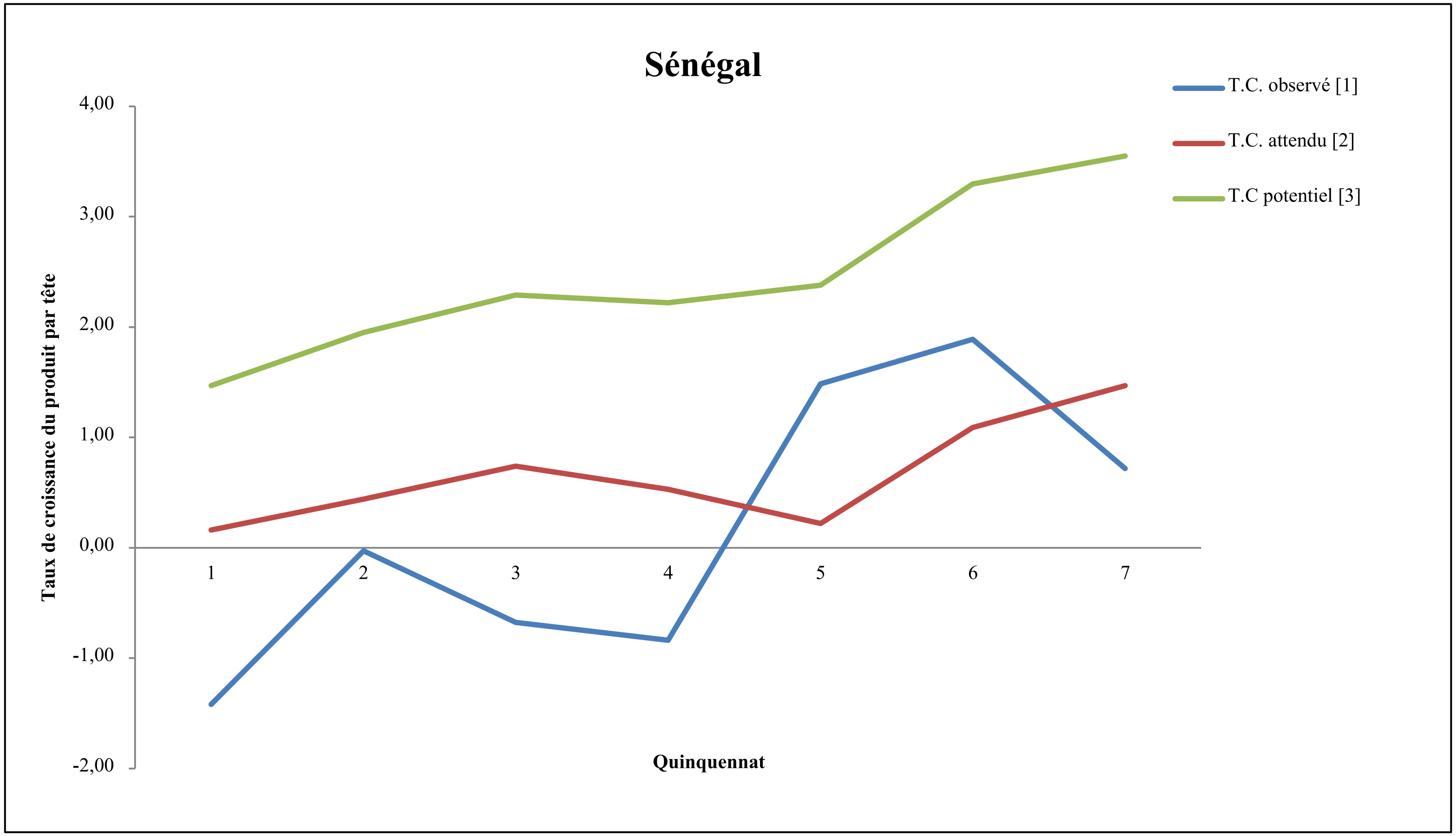
Potential gain of integration, estimated actual gain and potential gain of its reinforcement

- In the case of FZ, long lasting process of integration: the potential gains of a *reinforcement* of integration should not include the gains already obtained
- In fact difficult measurement of the *actual impact* of existing integration on growth, when usual method applied: insertion of dummy variables for union membership (UEMOA, CEMAC) in the previous growth regression (not including policy variables)
- Positive unsignificant results for UEMOA, negative for CEMAC on the whole period, but varying over time periods (best results obtained in 1995-2000)
- And results depending on the set of control variables: best average results obtained when the impact of conflict is taken into account and differenciated between FZ and other Africa

Observed, estimated and potential rates of growth, 1975-2010



Observed, estimated and potential rates of growth, 1975-2010



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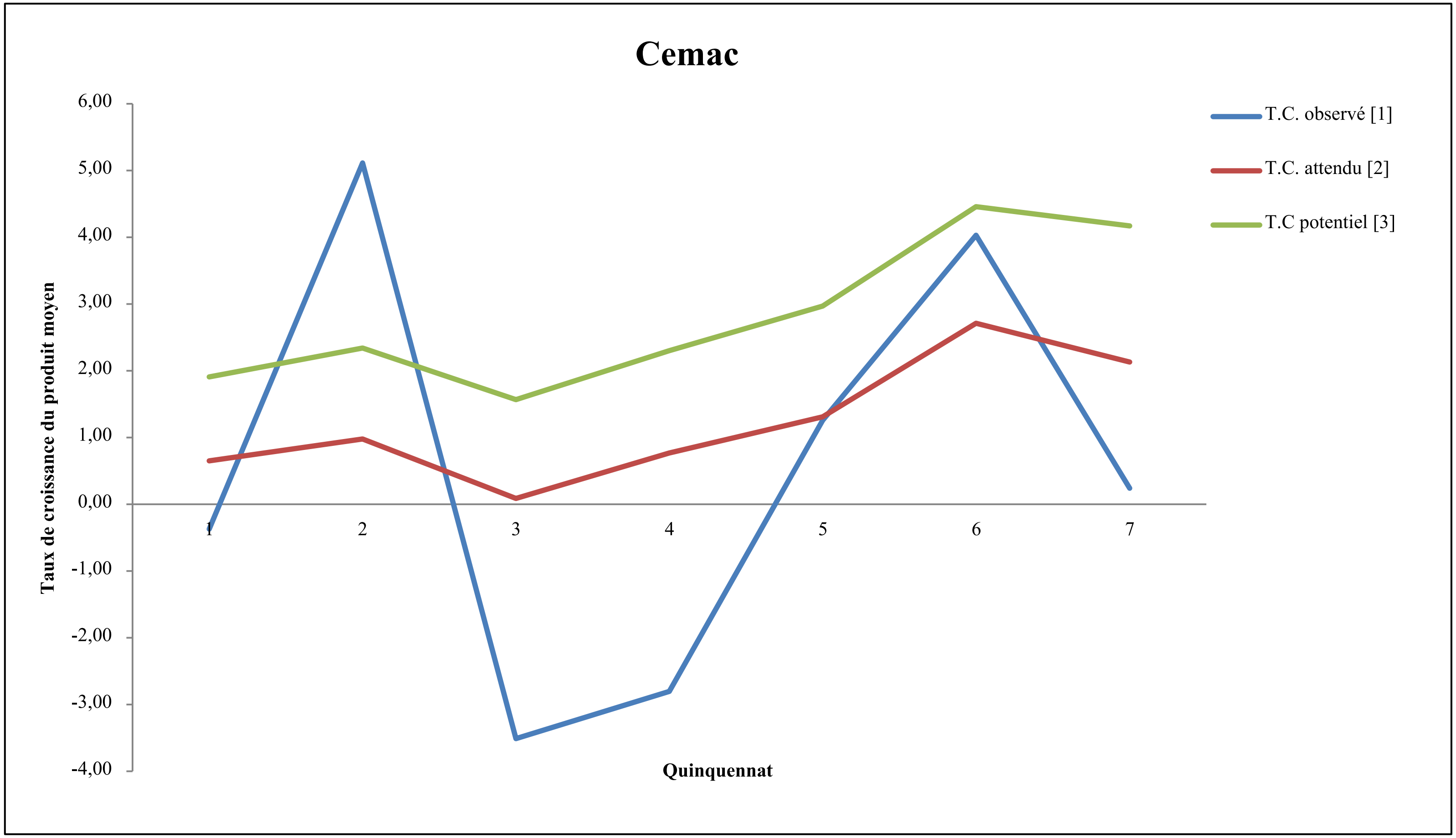

Alternative approach: gains obtained from specific changes resulting from integration, in main policy areas, vs overall gain of integration

- Several crucial policy factors of economic growth may be influenced by a « reinforcement of integration »: financial deepening, governance, infrastructure, investment, trade...
- Uncertainty about the impact of integration measures on these variables (although some insights may be given for some of them)
- Then, uncertainty about the impact of these variables on growth: all coefficients of these variables are generally significant in growth regression literature (as in our own regressions), but wide gap in the literature on the level of these coefficients (eg financial deepening)
- Furthermore: are all the relevant variables taken into account? how do they interact?

Results obtained for FZ unions

- Taking into account three variables, financial deepening, governance and infrastructure,
- Assuming that integation measures result in an improvement corresponding either to the average African level or the highest level of the Union
- Applying the coefficients found for these variables when they are added in the previous growth regression
- Aggregating these partial results, the (rough) total growth gain obtained is approximately the same that the (rough) result obtained with the global method (between 1.5 and 2 points)

Complementarity of the methods

- The results of the two methods (scale change and intermediate variables) are not a priori additive
- The first global method has the advantage of simplicity, drawing a perspective under the condition that all the needed integration measures are taken and implemented
- The second may help to identify the channels by which more integration is likely to speed up growth, in a progressive way
- Nevertheless the full integration as captured by the first method corresponds to what actually occurs in larger single countries, where the integration is not perfect. In some specific areas the process of integration between independent countries may go further or deeper than the integration within a single country. To this extent, there may be some additivity of the gains estimated by the two methods.

Neglected (not benign) political dimensions

- Impact analyzed independently of the FZ dimension, i.e. the guarantee given by the French Treasury supporting the convertibility of CFAs, and entailing indirect consequences on trade orientation (less trade diversion), price stability, and, to some extent, exchange rate management. How can it change growth potential?

- Impact, actual and potential as well, strongly dependent on the influence of integration on the risk of conflict and on their potential impact on growth. No serious counterfactual, by chance!