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Portugal in the EU: the Perspective of Convergence

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SECOND PART

Convergence of Trade - Integration Analysis

1. Introduction

Questioning the Portuguese convergence means questioning the Portuguese gains from its entrance in the European Regional Block. For that reason, this paper will start by separating convergence from the Macroeconomics perspective (already focused in the first part) from the Microeconomics one, an indispensable step to the following evaluation of Trade and so that there will be a correct passage from the first part to the second.

Afterwards this paper will introduce the problematic of Integration and relate it with Trade. Regional economic integration will be confronted with the characteristics of business enterprise integration after studying the possible reasons for welfare evolution in an open economy, all this to continue the balance between the Macro and the Micro study.

The right environment is created to continue through Trade relating it with a theoretical study of Growth effects over Regional Integration with a modelling presentation of the works of Dixit and Norman (1980) and Helpman and Krugman (1985), including the Tobin's q (1969), before realising the advantages of localisation and the model of Krugman (1980). Focusing the advantages of localisation, this paper continues with the organisation of the market, questioning about the relevance of geographic distance, the best environment for the following presentation of the gravitational models, the main objective of the following own estimations. The analysis of the evolution of the Portuguese trade will come soon after, using indicators like the Index of the balance on goods over the GDP for each country, the Herfindahl index, the Hirshman Index and the Grugel-Lloyd Index for countries and chains.

1.1 Macro Versus Micro Convergence

This paper specified first the several concepts of convergence, their measures and implications. Afterwards questioned about Real and Nominal convergence. Nevertheless, convergence can still be analysed according to two different perspectives: the Macro and the Micro ones, because we can analyse the question with an eye in a country (or a group of countries) or in the performance of firms and industries.

According to its defined reasoning, is detailing more and more the idea of convergence. So, if before convergence was seen under a highly Macroeconomics context, since this paper will deal in the second part with competitiveness, trade intensification, market concentration, localisation factors and all sort of variables directly tied with the performance of firms, it's time to compare Macro and Micro levels, under a dynamic way.

Square 11: Macro and Micro Convergence

In what their different	Macroeconomics	Microeconomics
Central players	Countries	Firms, Industries
Main indicator	GDP per capita	Moment of the innovation's creation
Nature of Convergence	Economic growth	Innovation's path
How to converge	Capital mobility, cooperation among countries	Industrial policies, technological alliances between firms
Characteristics	Conditional convergence. Considers that the values of the structural variables (savings rate, demographic growth rate, technological progress rate) are identical between countries	According to Arrow, the new product isn't dividable nor has particular proprieties.
Consequences	Living standard differences are reduced	Innovation delay between leaders and followers is reduced

Source: based on Emmanuel Coube, "Alliances en R/D et rattrapage leaders-suivers"

Convergence can focus the path of countries or the behaviour of firms and industries. The preferences of consumers (demand) move firms and industries towards the satisfaction of their needs. The wanting to conquer clients' pushes firms to innovation, industrial organization and market strategy, that's way they make industrial policies and technological alliances between them. Countries rather cooperate with each other at the same time as they incentive the capital mobility to reach convergence.

On a Macro perspective countries try the conditional convergence, on a Micro perspective it's possible to compare products if considered undividable and without particular properties. Finally, convergence among countries is traduced by the reduction of living differentials but convergence among firms and industries is reached when the innovation delay is diminished.

With this in mind will deal with the Portuguese regional integration specifying the environment of commercial transactions.

1.2 Reasons for Welfare Evolution in an Open Economy

In any state-member, let's consider that the welfare of a representative consumer may be represented by an indirect utility function like $f(p+c,k,E)$, where p represents the frontier prices, c the trading barriers (and all costs that may result from trade), k the number of product varieties for each industry and E the total expenses on consumption.

These total expenses are identical to the sum of factor revenue, rent and profits coming from trade barriers minus investment. So, being wL+rK de total factor revenue with w and r, respectively, the factor prices of labour and capital; being the G the internal product of the economy's production vector and h (w, r, g) the difference between domestic prices and average costs, knowing that this last one depends, in each sector, on factor prices and production per firm in that sector, g; and being μcn the domestically resulting rents, where μ is a diagonal matrix dealing with the proportion of the wedge c making income for domestic agents, with μ=1 for a barrier with Domestically Captured Rent (DCR) and μ=0 for a barrier where no trade rent is captured domestically (nonDCR); n for the net import vector (that when positive reflects imports) and I for Investment; so the formula is:

$$E = wL + rK + G\left[(p+c) - h(w,r,g)\right] + \mu cn - I \qquad \text{(D.1)}$$

Totally differentiating $f(p+c,k,E)$ and dividing by the marginal utility of expense, where $\tilde{r}$ is the social rate of return and the ξ the social discount rate, then:

$$\frac{df}{f_E} = \overline{\mu c.dn - n.d(c-\mu c) - n.dp}^{A} + \overline{(p+c-h).dG - Gh_g.dx + (f_k / f_E).dk}^{B} + \overline{(\tilde{r}/\xi - 1)dI}^{C} \qquad \text{(D.2)}$$

The part A of the equation must itself be divided in three parts, even if all together show the welfare effects on models of perfect competition The first one corresponds to alterations in volumes of trade because of the limits imposed by the DCR barriers. The second one reflects changes in costs influenced by variations in nonDCR elements. The third one show the effects in terms of trade.

The part B is also subdivided in three terms, even if all together are important in models with imperfect competition and increasing returns to scale. So, the first term focus changes in the production of the industries where prices aren't equal to an average cost; the second reflects the consequences of variations in the firm scale over the value of variations in average costs; the third effect is induced from an alteration in the number of differentiated consumer products over the variety of products in the market.

The part C has only one term depending on the accumulation of factors. In other words, if a change in investment is immediately very expensive, the capital stock with social rate of return augments. Discounting it at a value ξ corresponds a present value $\tilde{r} / \xi$, in such a way that a change in investment has a first order welfare effect if this ratio differs from 1. For a small country like Portugal that has fixed border prices, only the first two terms in the formula above are determinant, exactly the volume and trade cost effects.

The traditional literature use DCR barriers (μ=1). This implies no trade cost barriers. So, the welfare effects end being equal to c.dn, correspondent to the sum of tariff wedges multiplied by changes in the volumes of trade; this show us the fundamental ambiguity in determining the welfare effects of a Regional Integration Agreement (RIA) reflected in the signs of c or dn. To resolve the problem, it's necessary to understand which are the gain opportunities. An example of this may be the one with initial tariffs on intra-RIA trade (but not extra-RIA trade) very near zero, because an augmentation in tariff revenues on external trade will contribute to welfare gains.

In the EU were eliminated the non-tariff barriers and not all these tariffs produce rents for the domestic economy. It's case to say that if all barriers were non-DCR, then the nation gains from any RIA that lowers its trade-weighted tariff equivalent trade barriers.

Our only consideration here is the size of the country inside a regional block, where countries differ in L endowment and progressive reciprocal liberalisation implies more exportation for both countries in the short-run. The question is that, independently of the country size, the larger country has more firms. By profiting from lower barriers those firms enter in the small country in such a way that the effects over the local market (of that small country) are more intensely felt than in the export market. In other words, competition increases in the local market by foreign firms as well as is in the export market by domestic firms. Due to trade barriers, the local market becomes more important than the export market.

Reciprocal liberalisation ends pushing more for the return of capital of large-based firms than of small-based firms, implying a worse medium-run growth situation for the small country and a better one for the large country. This is why small countries must invest in measures that may promote structural convergence, in other words, permanent improvements and market dynamic, this because integration also brings many advantages. Integration promotes a safer investment market by diminishing the premium of risk, the one that will be less and less summed to the rate of pure time preference and increase the stock market value of investment, as well as the Tobin's q, leading to positive medium-run growth consequences. For all that, membership guarantees three things: investors insurance, through the Single European Act statements over the open capital markets and respective rights of establishment; prohibition of antidumping and countervailing duties by a complete market access and limitation of surprising changes in indirect tax policies, investment and trade. And more investment means higher production.

1.3 Regional Economic Integration versus Business Enterprise Integration

Consequently, integration promotes a safer market for investment and trade for the state-members through the Single European Act statements over the open capital and good markets, diminishing barriers for a complete market access.

Following the main ideas expressed above, this paper can finally differentiate two types of economic integration, the regional from the business enterprise, the first considering a Macro perspective, the second considering the context of firms and industries. Integration cannot be well understood without studying the reasoning power behind the two. So, based in the plan of action expressed in Dunning and Robson (1988), this paper can express the following relation:

Square 12: Regional Economic Integration versus Business Enterprise Integration

Regional Economic Integration	Business Enterprise Integration
Estimate the economic power of the region or of the country	Improve competitive position
	Explore competitive advantages
More efficient use of resources	Get through transaction costs
	Protect products quality
Reduce market imperfections (monopolies, reduce volatile exchange rates…)	Reduce risk and uncertainty in market transactions
Push for competitiveness	Improve profitability
Make business specialisation easier	Protect the value of specific actives like technology and management competition
Explore advantages of political coordination	
Increase the dimension of the market and the technological ability of state-members	Incentive synergies that may result from a common property of related activities
Improve the position of the region so that may adopt common strategies towards the non-state-members	Cheer common costs

Source: based on Dunning, J.H. and P. Robson (1988), "Multinationals and the European Community"

The described above allow us to understand the perspective of governments in one hand and the heads of the firms and industries in the other, since they focus their strategy according to those differences. Knowing that the firsts are more preoccupied with the general welfare they rather protect the region resources at the same time as they reduce market imperfections, push for competitiveness with political measures and make business specialisation easier, also adopting common attitudes inside the Regional Block and towards third countries. For firms and industries regional integration mean a larger market with lower transaction costs because of the diminishing barriers and lower costs mean higher profits if they also know how to explore competitive advantages, synergies, invest in the quality of their products for improving their competitive position. Is this the whole idea about Regional Integration, resulting from the interaction of several different forces that as time passes it's expected to result positive to the country.

1.4 Portugal

Portugal did and it's still doing those efforts. At the same time as the country policy stimulated the power of the domestic market, firms were prepared to impose a competitive position and explore the competitive advantage of their products. More or less improving the efficient use of resources and reducing the market imperfectness, the policies became more orientated in one direction, the one of competitiveness. But it wasn't an easy task, it still isn't. The country was way behind on market dynamic and the whole of firms needed years to verify interesting results abroad, since Portugal was at first a country of many small private firms without much ability to conquer new markets.

Knowing that the inherited starting position was highly responsible for the possible development path of individual economies and that Portugal came from a dictatorship, what happened is that in the following years after the implantation of democracy there was an intensive privatisation of firms. Against a past of macroeconomics restrictions, structural-adjustment came.

In our days the EU is preparing enlargement to the Eastern Countries. Portugal passed through some of those steps years ago, after seven years to complete accession. As according to the process of integration, becoming a membership of the EU represented a considerable transition shock for an acceding country like Portugal, reason for a period of continuing reform wanting to harmonise with the other state members.

To reach that objective Portugal was dependent on constraints for membership, negotiated criteria of adjustment and progress with transition. Since accessing countries were expected to create the necessary economic, legal and institutional context for the EU membership, improvements were required and taken seriously, is it in terms of firms competition (investing on significant changes in volume, direction and sectoral composition of trade), is it in terms of legislation for free movement of goods, services and factors of production, as well as bold macroeconomics management, harmonisation of laws, minimum social standards for the ones lying under, investments with technical assistance and long term lending for environment protection and harmonisation standards (Goldin, 1996).

All this because transition was to be faced with criteria so that there weren't too heavy cost in term of resources. The short-term costs of adjustments were supposed to be anticipated offset by the long-term benefits derived from trade liberalisation. Watching its market size augment, Portugal induced capital accumulation and tried innovation, raising production and, consequently, national income.

For comparative advantages, the financial market was improved and complemented over the years with investments for new opportunities and higher competitiveness, including considerable complementary investments in and high-tech sectors and human qualification, knowing that Portugal had these two items very neglected; this because real wages costs, although in part improved, are still far from the EU's average.

There was an intra-industry trade increase based on horizontal product differentiation, for more that inter-industry trade values were high some years ago; those values changed much ever since. This because an industrial economy like the EU used product diversification as a determinant strategy to open and defended markets, mainly through manufacturing firms, and according to company-specific advantages by differentiating volume and quality of the production. Besides, changes on the distribution of wage incomes among sectors after trade liberalisation resulted less dramatic for intra-industry adjustment patterns while, inversely, intersectoral adjustments are many times harder because of the difficult reallocation of factors from one sector to another (Gabrisch and Werner, 1998).

More adjustments must continue existing, especially now that the EU is a much more integrated single market already inside a common monetary policy around a unique coin (Euro) for the inside countries and a strict exchange rate mechanism for third countries.

2. Trade – Models Presentation

In the study of the impact of the entrance of Portugal in the European Regional Block we can see, for instance, that the patterns and volumes of the Portuguese trade have faced significant transformations as the imposed duties on EU imported products were totally abolished and the Common External Tariff (CET) was successively adopted. Is it then possible to relate trade with economic development?