New Developmentalism and Balance of Payments Constrained Growth Models: convergences and divergences

José Luis Oreiro

Blog Oreiro, 29/07/2021

In a recent exchange of e-mails with Professor Anthony Thirwall, he recommended me to read a relative unknown book chapter that he wrote with Dixon in a book published in 1979 titled "Inflation, Development and Integration: essays in Honour of A.J. Brown". The title of the chapter is "A model with export-led growth with balance of payments constraint". This chapter is very interesting for understanding the historical development of the literature of Balance of Payments Constrained Growth Models (BPCG hereafter) because it make a synthesis between the cumulative causation model developed by Dixon and Thirwall (1975), where growth is export led and there is a positive feedback mechanism between exports growth and output and productivity growth; and the "pure" BPCG models (Thirwall, 1979), where the long-run growth is determined by the ratio between exports growth and income elasticity of exports, but there is no feedback mechanism that allowed an increasing divergence between growth rates of real output once an initial advantage of one country over another was established. The cumulative causation mechanism was abolished from the BPCG literature because:

"Despite the effort of formulating a fairly sophisticated export-led growth model, incorporating the idea of a virtuous cycle led by exports but constrained by the balance of payments, it seems from empirical evidence that a simpler model will suffice (....) It is to suggest that the link between exports and growth via Verdoorn effect may not be very important either because relative price change very little or because the price elasticities of demand for exports and imports are not sufficient high. The main importance of export growth lies in raising the balance of payments constraint on growth, simply allowing countries to reach their capacity rate" (Thirwall and Dixon, 1979, p. 188).

Above we can see some convergences and divergences between new-developmentalism and BPCG models. The convergence lies in the fundamental importance of (manufacturing) exports for long-term growth; the divergence regards the role of real exchange rate in the process of economic development.

New-Developmentalism arises as an answer to the crisis of the model of Import Substitution Industrialization (ISI hereafter) in the 1980 and 1990 in Latin America. One of the fundamental historical facts in which new-developmentalism is based is the idea that middle-income countries of Latin America, like Brazil or Mexico, had already overcome the phase of infant industry where import tariffs are required to develop the domestic manufacturing industries until they reach the efficient production scale in order to become competitive in both domestic and international markets (Bresser-Pereira, 2006). Once the phase of infant industry is overcome, it is necessary to put in place a model of industrialization through the promotion of manufacturing exports, what Kaldor (1967) named as the stage 2 of industrial development. In the words of Kaldor:

"As the experience of many countries has shown, the stimulus of industrialization afforded by this pattern out as the process of import substitution is gradually completed.

To maintain development it is necessary for the industrializing country to enter a second stage during which it becomes a growing net export of manufacturer consumer good"

This model requires the adoption of a macroeconomic policy regime that allowed real exchange rate to remain at a competitive level in order to compensate the technological backwardness of domestic manufacturing industries in comparison with the manufacturing firms of developed countries that operate within the technological frontier.

Reducing the technological gap is a time-consuming process and can not be done at once, which means that technological disadvantage of manufacturing exports of the new-industrialized Latin American countries, as well as in East Asia, had to be compensated by price competitiveness in the form of a undervalued exchange rate. The abundance of natural resources combined with liberalization of capital account of balance of payments in the beginning of the 1990 had produced a trend of overvaluation of real exchange rate in Latin-American countries, reducing the price-competitiveness of manufacturing exports and hence in a falling share of manufacturing exports of Latin American countries in total world manufacturing exports. East Asia did not suffer from the same trouble: the combination of low natural resources with large capital controls had contributed to keep real exchange rate at competitive or undervalued level, allowing these countries to increase their share of world's manufacturing exports. In terms of the 1967 Kaldor's model, Latin America failed to enter in the phase 2 of industrial development, but East Asia had been extremely successful.

BPCG models shared with new-developmentalism the role of exports as the engine of long-term growth. In the words of Thirwall and Dixon (1979):

"Thus, as long as the income elasticity of exports is greater than unity, which appears to be for most countries, the ratio of exports growth to income growth will almost certainly show an historical tendency to exceed unity. Indeed, one could go further and say that if the income elasticy of demand for imports exceed unity the export sector must expand relative to the total of the economy if growth is to be sustained" (p.174)

If an income elasticity of imports greater than one demands exports to grow at a higher rate than domestic output; this means that a sustainable growth path from the perspective of balance of payments requires an increase in the ratio of exports to GDP, which means that output growth must me export-led in order to be sustainable.

A similar argument is presented in Bresser-Pereira, Oreiro and Marconi (2015):

"For a small open economy that lacks a convertible currency, as is the case of the vast majority of the middle-development countries, the exports growth is the exogenous variable par excellence. The reason is that, if the growth rate of public expenditure is higher than the exports growth rate, then output and domestic income will grow more than exports. If income elasticity of imports is higher than one (as it usually is in medium-development economy), then imports will grow higher than exports, generating a growing trade deficit which will probably be unteanable in the long-term" (p.29).

The divergence of new developmentalism with BPCG models regards the role of exchange rate in the process of economic development and, more specifically, it's ability in promoting the exports of manufacturing goods. Thirwall and Dixit (1979) argues that exports growth can not be affected by the level of real exchange rate or, in

their words, "on the absolute difference between domestic and foreign prices" (p.177); but only by the difference between the rate of change of domestic prices and foreign prices" (p.177-178), which is the same as the rate of change of real exchange rate. Although the authors explicitly recognizes that a depreciation of nominal exchange rate is capable to increase the growth rate of real output compatible with the balance of payments equilibrium, **since the Marshall-Lerner condition is likely to be satisfied in most countries** (p.184-185); they argue that an "improvement in the growth rate can only be once-and-for-all unless depreciation is continuous" (p.183), which means that in order to increase the output growth, policy makers must increase the rate of nominal exchange rate. However, a continuous change in the relative prices of domestic goods and foreign goods is clearly unsustainable in the long-term: the real exchange rate cannot change forever in one direction or another, it had to reach some equilibrium level.

Regarding the equilibrium level of real exchange rate, Thirwall and Dixit (1979) suggests that it can be given by the law of one price (p.184); or, in other words, by the strong version of the Purchasing Power Parity (PPP) Theorem according to which the real exchange rate in the long run is constant and equal to one. Another possibility is that in the long run all changes in the rate of change of nominal exchange rate gives rises to equal increases in the rate of change of domestic prices, so that real exchange rate remains unchanged; but in this case, the equilibrium level of real exchange rate is undetermined by the model proposed by the authors.

In contrast to BPCG, new developmentalism argues that long-run equilibrium level of real exchange rate is given by the level of real exchange rate for which the share of manufacturing industry in GDP is constant over time (See Oreiro, 2020; Oreiro, D'Agostini and Gala, 2020; and Oreiro, Martins da Silva and Dávila-Fernandes, 2020). If the actual level of real exchange rate is equal to the industrial equilibrium level, then the growth rate of real output will be determined by the growth rate of exports – with the investment rate adjusting itself to the growth rate of exports in order to keep capacity utilization at the normal level in the long run – and the country will run a surplus in the current account of balance of payments as a ratio to GDP if it is capable to both neutralize the Dutch disease and control the inflows of foreign capital. In this scenario the balance of payments constraint will never be a binding constraint: the growth rate of real output will be lower than the one compatible with the equilibrium in the balance of payments. In this context, the restriction to output growth will be given by (i) the growth rate of international trade and (ii) the size of technological gap which largely determines the income elasticity of exports.

To sum up. New-Developmentalism shares with the BPCG models the thesis that exports growth is the engine of long-term growth of capitalist economies, at least those ones that did not had a convertible currency and hence are incapable to finance a permanent disequilibrium in the balance of payments. Unlike BPCG models, however, New-Developmentalism had a clear and measurable (See Oreiro, D'Agostini and Gala, 2020) concept of equilibrium real exchange rate. Moreover, New-Developmentalism set the real exchange rate at the center of the theory of economic development, since set the real exchange rate at the "right level" is fundamental for a sustainable path of economic growth. Real exchange rate overvaluation due to Dutch disease and/or foreign capital inflows will result in premature deindustrialization and slowdown in the rate of output growth, thereby reducing the growth rate of productivity and real wages in the long-term. References

Bresser-Pereira, L.C. (2006). "O Novo-Desenvolvimentismo e a Ortodoxia Convencional". *São Paulo em Perspectiva*, v. 20, n. 3, p. 5-24, jul./set.

BRESSER-PEREIRA, L.C; OREIRO, J.L; MARCONI, N. (2015). *Developmental Macroeconomics: new developmentalism as a growth strategy*. Routledge: London.

Dixon, R.J; Thirwall, A.P. (1975). "A Model of Regional Growth Rate Differences on Kaldorian Lines". *Oxford Economic Papers*, Vol.27, n.2, pp. 201-214.

KALDOR, N. (1967). *Strategic Factors in Economic Development*. Ithaca: New York State School of Industrial and Labor Relations, Cornell University.

Oreiro, J.L. (2020). "New Developmentalism: beyond competitive exchange rate". *Brazilian Journal of Political Economy*, vol. 40, nº 2, pp. 238-242.

Oreiro J.L., Manarin D'Agostini L.L., Gala P. (2020). "Deindustrialization, economic complexity and exchange rate overvaluation: the case of Brazil (1998-2017)", *PSL Quarterly Review*, 73 (295):313-341.

THIRWALL, A. P. (1979). "The Balance of Payments Constraint as an explanation of international growth rate differences". *Banca Nazionale Del Lavoro Quarterly Review*, 128, pp. 45-53.

Thirwall, A.P; Dixon, R.J. (1979). "A Model of Export-Led Growth with a Balance of Payments Constraint" In: Bowers, J.K. (ed.). *Inflation, Development and Integration: essays in honour of A.J. Brown*. Leeds University Press: Leeds.