The balance of payments as a constraint on growth

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Naciones Unidas

CEPAL
Introduction

Prebisch devoted much analysis to the constraint posed by the balance of payments, because he considered this to be a great limitation on the region’s economic growth and a bottleneck holding back the process of industrialization.

This constraint on the economic development of peripheral countries of the world economy was one of the most notable components in the analytical approach of the structuralist school, which ECLAC, and Prebisch in particular, did so much to nurture.

The balance of payments is the result of the relationship between monetary flows to and from the outside world. The first category consists of outflows of foreign currency to pay for imports of goods and services, and outflows of capital; the second category comprises inflows of foreign currency generated by exports of goods and services, as well as financial flows from abroad. The balance of payments is thus the sum of the trade balance and the balance of capital flows.

The balance of payments imposes a restriction on the process of economic growth because that process demands more external resources than may be available. The pace of economic growth is determined by the volume of external resources that can be mobilized. Consequently, problems in obtaining such resources constitute a bottleneck which is conditioned by the productive structure of the peripheral countries and by the system’s tendency to reproduce the characteristics of the productive structure – hence the term "structuralism" given to this approach.

Prebisch addressed this problem in various ways in the course of his intellectual career, which led him to analyse different elements that influence the balance of payments constraint. Those explanatory factors are linked to each other, and the forces through which they act are complex: in certain periods they operate in a complementary manner, while at other times they are at odds. The following discussion deals with three elements that influence the balance of payments and looks at the principal characteristics of Prebisch’s proposals, assessing them in light of current economic reality and the contributions of subsequent theorists.

1. The decline in the terms of trade

This issue is dealt with in another section devoted specifically to it. The terms of trade evolve as a result of changes in the prices of exported goods and services, on the one hand, and in the prices of imported goods and services on the other. Raúl Prebisch, like Hans Singer, maintained that the prices of primary products tend to rise more slowly than the prices of manufactured goods. As peripheral countries specialize in producing raw materials while developed countries specialize in industrial production, the decline in the terms of trade will produce a situation in which, to maintain their trade balance, peripheral countries will have to export ever greater volumes in order to continue importing the same quantities of goods and services.
The deterioration in the terms of trade, in turn, is explained by the particular characteristics of labour markets and productive structures in developed and developing countries.

2. Income elasticity of demand

Another Prebisch notion for explaining the economic growth constraint posed by the balance of payments relates to the income elasticities of demand for exports and imports.

The income elasticity of demand refers to the proportionate changes in demand in relation to proportionate changes in income. Income elasticity is positive, but it may be greater than unity in the case of a dynamic good or less than unity in the case of a traditional good, to use the terminology of the time.

This version has two interrelated components: one corresponds to the growth of demand and the other to the effect of that growth on technological change.

a. The behavior of demand

This issue harks back to what is known as Engel’s law, which emerged from the studies conducted by this German economist in the nineteenth century. He had shown, using a broad horizontal sample, that different segments of the population had distinct structures of demand, depending on income level, and that as income rose the structure shifted in favour of industrial goods and services, away from expenditure on food. From this emerged the idea that countries specialized in the production and export of raw materials and foodstuffs were faced with the problem of low income elasticity of demand for their exports. By contrast, those countries’ demand for industrial goods would increase as their income rose, and this would put pressure on their trade balance, moving it away from equilibrium. If for various structural reasons the productive transformation were blocked and developing countries maintained their specialization in primary goods, they would see their capacity for growth constrained by the limited rise in demand for their exportable goods and a propensity to import that outpaced their income, leading to a growing deficit in their trade balance.

More recent observations have modified and nuanced this idea. Some maintain that the income elasticity of demand is historically determined, that it undergoes changes and that its trends may even be predictable. With the so-called “gastronomic transition”, the demand for certain foodstuffs, for example meat and wheat, may go from periods of low income elasticity when average incomes are very low to periods of higher income elasticity when incomes rise to intermediate levels, and then fall back again when the average income level is very high. The current impact on demand for primary goods generated by China’s economic growth may be considered similar to that generated by European industrialization at the end of the nineteenth century, to the extent that new population segments are now enjoying higher incomes and are changing their consumption habits. This means that in some historical periods countries that export primary goods may in fact enjoy robust demand.
b. The effect of differing income elasticity of demand on productivity increases

The impact of income elasticities of demand on growth would be even greater if the increase in productivity is taken into account. The Prebisch thesis finds support in theories that associate technological change with rising demand. If the increase in productivity is the result of growth in markets as well as in the scale of production, it will be greater in sectors that have dynamic demand.

Consequently, in industrialized countries the growth of productivity will be higher than in countries that specialize in primary goods. To this must be added the fact that industrialized countries have social and political structures that allow the fruits of higher productivity to be appropriated by the players involved (the State, businesses, unionized workers). On the contrary, in primary producing countries the growth of productivity is not only slower, but its increases are not necessarily appropriated by the pertinent sectors, since the abundance of labour prevents wages from rising and higher productivity may make itself felt in lower prices, which in turn will contribute to the decline in the terms of trade.

The emergence of structuralist ideas coincided with a stage of the economy in which world trade was shifting from a scenario characterized by exchange between the primary goods of peripheral countries and the manufactured goods of industrialized countries to another scenario dominated by inter-industry exchange between developed countries. Industry reaped greater economies of scale than did agriculture and was more susceptible to technological change and productivity increases than the primary sectors. Consequently, to promote industrialization was seen as the way to launch a country on the road to development. The subsequent deindustrialization of developed countries, the advance of information technologies, and the appearance of new, modern services introduced some fresh issues to this debate.

It has been observed – primarily in the context of neo-Schumpeterian and evolutionist thinking – that technological change should not be seen as exclusively demand-driven, and that attention should also be paid to the supply side and to the strong interaction between supply and demand. These theories, however, do not necessarily refute the basic ideas of Prebisch as to the disparate income elasticities of demand – indeed they incorporate those ideas, with the nuances mentioned earlier.

In any case, the idea that industry has shown greater technological dynamism than agriculture has not always held true, and in fact agricultural production and its systems of innovation can be very dynamic. Nevertheless, it has also been stressed that technological paths are very important and that specialization in some primary goods can lead to dead ends, blocking any long-term shift toward the production of goods with greater technological content. Thus, the rich countries dominate technologically dynamic markets and have a specialized and diversified pattern of production, while poor countries specialize in producing typically poor-country goods (Haussman and Rodrik).

World trade has now become much more complex, developing countries have industrialized and now dominate markets for labour-intensive manufactures, but they have also learned to incorporate high technology. Some authors, such as Cimoli and Verspagen, have stressed the need to work with a continuum of goods, but the aggregate result is likely to be very similar to that of Prebisch, as the
relatively more developed countries succeed in capturing markets that are more dynamic from the technological viewpoint and in controlling the most profitable niches in the value chain. Today’s world is more complex, as it has a centre of manufacturing dynamism that is not the centre of scientific and technological development, a situation that calls for a great effort at rethinking.

c. Elasticities in Latin American development

The following simplified equation can be used to examine the growth possibilities of an economy in relation to the world to which it exports:

\[
\frac{y_i^*}{z} = \frac{\varepsilon}{\pi}
\]

Where:

- \(y_i^*\) is the income growth rate of country \(y_i\) with equilibrium on its balance of payments;
- \(z\) is the income growth rate of the rest of the world;
- \(\varepsilon\) and \(\pi\) are the income elasticities of demand for exports and imports, respectively.

The elasticity approach indicates that the relationship between the growth of one economy and that of the rest of the world (\(y_i^*/z\)) can be derived from relative elasticities (\(\varepsilon/\pi\)). This analysis presupposes leaving aside capital movements as well as changes in relative prices (terms of trade).

As shown in the following table, the relationship between elasticities is a very good approximation of the relative growth of the seven Latin American countries for which information is available over the period 1870-2008. As will be seen, the real relative growth rate (\(y/z\)) is very close to the rate estimated from (\(\varepsilon/\pi\)) in the seven countries. In all cases, they went from a per capita GDP equal to 41% of that of developed countries in 1870 to an equivalent of 28% in 2008. Projecting data from 1870 according to the estimated growth rate (\(\varepsilon/\pi\)), GDP per capita in 2008 would be the equivalent of 31%.
3. Cyclical movements

Early in his career, Prebisch was faced with a new economic reality in which the prices for exported and imported goods, the demand for various goods, and capital flows were highly volatile.

As early as the 1920s, from his vantage point in the Argentine economy, he was able to study the great economic fluctuations that occurred during the First World War, the immediate postwar period of expansion, and the crises of the early 1920s, which were followed by the crash of 1929 and the Great Depression of the 1930s.

This extreme volatility he saw as an additional factor for economic distortion, together with the trends in the terms of trade and the behaviour of elasticities. This topic is not dealt with here in detail; another section is devoted specifically to it.

Like many other economists, Prebisch recognized that cyclical movements were the natural pattern of the capitalist economy and that it was important to understand the functioning of cycles at the global level and, especially, the different forms and workings of cycles at the centre and on the periphery. The amplitude of price cycles for primary goods was greater than that for industrial goods: they rose higher in boom times but they also fell further during downturns, at the end of which the terms of trade could be seen to have deteriorated.
The following figure shows the relationship between growth rates and trade balances during recent decades in Latin America.

As will be seen, during the 1950s Latin America enjoyed high growth rates and a trade surplus, thanks in part to the improved terms of trade and strong demand in the developed world, which was growing quickly. As this high rate of growth persisted into the 1960s, imports of durable consumer goods surged, but so did those of capital goods and industrial inputs. The result was a rising trade deficit, which became very significant in the 1970s, when the terms of trade deteriorated, external demand languished and oil import costs soared for many countries. Much of this trade deficit was offset by abundant capital inflows, reflecting the relative lack of investment possibilities in the more developed economies.

Yet these capital inflows caused local currencies to become overvalued, they stimulated imports, they undermined the competitiveness of exports, and they exacerbated the trade deficit. Higher interest rates in the United States and growing suspicion about the sustainability of the Latin American debt model sparked a capital flight and a profound crisis, from which the region emerged with a drastic fall in output and a corresponding reduction in imports. The trade balance was restored in the "lost decade" of the 1980s, only as the result of a sharp decline in the growth rate.

Source: CEPAL (2012), Structural Change for Equality, Figure I.4
In the 1990s a new expansionary cycle began and the history of the 1960s and 1970s repeated itself. Economic growth consumed the surpluses on the trade account and generated a new deficit which, initially, was covered with capital inflows attracted by privatization, but then also with financial capital. In the first years of the twenty-first century a new crisis erupted from which the region emerged, once again, through lower growth rates and trade balance adjustments.

As will be appreciated from the foregoing, economic cycles are closely associated with the cyclical behaviour of capital inflows and outflows, the volatility of which compounds that of the terms of trade and of the volumes of trade during the different phases of the cycle. Prebisch and his contemporary Triffin, noted that the cycles of financial flows coincided with trade cycles and amplified the economic cycle. This means not only that capital reinforces the upward portion of the cycle by flowing to economies that are growing but also that, when the cycle turns around, capital withdraws from economies in crisis, steepening their slide.

This set of aspects, which was present in the first half of the century and appeared again in the last decades of Latin America’s development, has been called “hyper-volatility”, meaning a volatility that is greater than what would be expected in light of the region's level of development.

As table 2 shows, Latin America betrays volatility levels above the average for the world as a whole and for regions at similar stages of development.

### Cuadro 2. Volatilidad del crecimiento (1961-2008)

<table>
<thead>
<tr>
<th></th>
<th>Tasa media crecimiento</th>
<th>Desvío Estándar</th>
<th>Coeficiente Variación</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD</td>
<td>3.35</td>
<td>1.66</td>
<td>0.49</td>
</tr>
<tr>
<td>Alto Ingreso: no OECD</td>
<td>5.86</td>
<td>3.21</td>
<td>0.55</td>
</tr>
<tr>
<td>Ingreso Medio Alto</td>
<td>3.81</td>
<td>2.45</td>
<td>0.64</td>
</tr>
<tr>
<td>Ingreso Medio</td>
<td>4.69</td>
<td>1.83</td>
<td>0.39</td>
</tr>
<tr>
<td>Ingreso Medio Bajo</td>
<td>5.86</td>
<td>2.39</td>
<td>0.41</td>
</tr>
<tr>
<td>Bajos Ingresos</td>
<td>4.08</td>
<td>1.85</td>
<td>0.45</td>
</tr>
<tr>
<td>Ingreso Mundial</td>
<td>3.64</td>
<td>1.51</td>
<td>0.42</td>
</tr>
<tr>
<td>Latinoamérica y el Caribe</td>
<td>3.91</td>
<td>2.63</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Estimación propia utilizando tasas de crecimiento del PBI (PPP) de acuerdo a datos del World Development Indicators del Banco Mundial

Source: Bértola and Ocampo (2012)
By way of synthesis

It can be argued that the terms of trade have deteriorated slightly over the long term and that this has constrained economic growth in Latin America. However, the income elasticities of demand for imports and exports would seem to be the principal explanation for the substantial constraint on economic growth that the region has encountered over the long term. These elasticities reflect the pattern of productive specialization in Latin America, which is oriented towards exporting goods for which income elasticity is lower than that for their imports.

Although it is difficult to estimate whether Latin America has recorded overall a negative balance on capital movements, those movements have increased the volatility of trade outcomes.

This overall high volatility, which may be characterized as "hyper-volatility", is a major source of instability and highlights a fact of great importance: while over the long term Latin America faces a balance of payments constraint, that constraint appears on a cyclical and intermittent basis. Thus, it is in abeyance at times of abundant external funding, which can obscure structural weaknesses during boom times, but it then bounces back to impose limits on growth, leaving Latin America ever further behind the more developed countries. This reflects, among other things, the fact that the weaknesses of the region's economies mean that growth cycles are shorter than in other economies, as Pérez and Titelman have observed.