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ON THE IMPORT INTENSITY
OF IMPORT SUBSTITUTION

BY

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ON THE IMPORT INTENSITY OF IMPORT SUBSTITUTION*

Import substitution plays a central role in the process of industrialization and it has received considerable attention in the development literature. Given a rate of growth for export proceeds, special efforts to further import substitution are viewed as a way to increase the rate of growth of an economy and to reduce balance of payments difficulties. Recent experiences of several semi-industrialized countries, especially in Latin America, have raised doubts as to the true size of the impact of import substitution on the balance of payments¹. New emphasis has been given to the fact that the domestic manufacture of many types of previously imported finished goods often requires substantial importation of raw materials and intermediate products, at least during the early stages of industrialization, so that the net import substitution (the value added domestically) is often a relatively small percentage of the value of the finished product. Furthermore, before domestic production of previously imported goods starts, large investments with high import components will be necessary, as the domestic capital goods industry will not become significant, as a rule, until the more advanced stages of industrialization are reached. Finally, it has been argued that as the process of import substitution advances, and the value of imports falls relative to the level of national product, the vulnerability of the domestic economy to adverse external factors need not necessarily fall, as the remaining imports are of such strategic nature in the process of production that a failure to maintain them at appropriate levels would cause severe dislocations in the economy.

This paper will explore the nature of the import intensiveness of the process of import substitution, and some issues related to it. It

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1. For example see DUDLEY SEERS, 'A Theory of Inflation and Growth in Underdeveloped Economies based on the Experience of Latin America', *Oxford Economic Papers*, New Series, Volume 14, Number 2, June 1962, p. 19.

will be seen that the fact that investment in semi-industrialized countries has a high import component does not by itself explain the severity of balance of payments difficulties in these countries. So long as the rate of investment, whether high or low, and the (imported) capital-output ratio remain constant, the direct impact of this year's investment on the demand for imports should be more than offset by last year's investment in the import substituting industry now coming to fruition. The problem arises when these countries attempt to *step up* their rate of investment in the import substituting sector in the face of a given growth of their exports, as the rate of growth of imports depends not only on the growth of the various sectors of the economy but also on the changes in those rates of growth.

Part I will obtain an import function using a simplified model, from which the following question will be asked: Under what conditions will an increase in investment in the import competing sector result in a decrease in the level of imports? The answer to this type of question will have an important bearing in the economic planning of growth, as it will yield the maximum increase in investment compatible with given balance of payments constraints.

Part II will consider the limitation of the model presented and will discuss the importance of variables which have not been explicitly taken into account in *Part I*.

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The model consists of a national income identity, production relationships and demand equations. Prices are assumed to remain constant. The following symbols will be used:

- Y = net national income
- C = total value of demand for all consumer goods
- H'_c = total value of consumption of home goods, defined as those goods which do not enter into international trade
- H'_i = total value of investment in home goods
- P' = total value of consumption of import competing goods, (produced domestically)
- X = value of exports
- M = value of total imports

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M_c = value of imported finished consumer goods

M_i = value of imported investment goods

M_r = value of imported raw materials

K = capital stock

I = ΔK = net investment

For the sake of simplicity it is assumed that no value is added domestically to the goods imported to be consumed and invested directly. In reality, internal transport, merchandising and installation costs add significant margins of value to imported finished goods. Alternatively one may think of parts of the home goods industry representing this type of value added domestically to imported goods.

The value of imported raw materials, M_r , will be split into those going into the production of import competing goods, M_{rp} , and those going into the production of home goods of all types, M_{rh} ,

Define:

$$H = H'_c + H'_i - M_{rh} \quad (1)$$

$$P = P' - M_{rp} \quad (2)$$

where H and P represent the value added domestically for home and import competing goods respectively. Net national income is made up of the value added domestically by the X , H , and P industries.

If no other constraints existed, given the rate of growth of exports the growth of the economy could be changed by altering the growth of the home goods and import competing sectors. The constraints which limit the freedom to change at will the latter variables are:

- (1) Limited factors of production.
- (2) The need for balance of payments equilibrium.
- (3) The income elasticities of demand, which for a given set of relative prices require certain growth patterns.

This paper will merge constraints one and two, by postulating supply conditions for the inputs of the production process in which only imported inputs have positive opportunity cost.

The only inputs with positive opportunity costs for the home goods industry are assumed to be imported raw materials. An increase in

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the net production of home goods will require $(1/g_1)$ of the value of that production in additional imports of raw materials (assume marginal and average requirements are the same).

The import competing industry produces with 'free' inputs plus capital and imported raw materials. These two latter inputs must be present in fixed proportions: imported raw materials worth $(1/g_2)$ of the increase of net production of P and additional capital worth $(1/z)$ of the increase in the net output.

To simplify the presentation, it is assumed that exports are produced solely by 'free' inputs, and that their level is given exogenously.

It is assumed that the capital stock in industry P is at all times fully utilized. Investment is made up of imported capital goods and goods produced by the H industry, (i. e. construction), in fixed proportions of $(1-r)$ of home investment goods and r of imported capital goods.

The demand conditions may be written as follows, (assuming that the average and marginal propensities are identical):

$$C = c Y, \text{ where } 0 < c < 1 \quad (3)$$

$$H'_c = b Y, \text{ where } 0 < b < c \quad (4)$$

The total value of internal demand for consumer goods which can be either imported or produced domestically will therefore be equal to $(c-b) Y$, which will also be denoted by aY . The level of imports of consumer goods will then be determined by the difference between domestic demand for and domestic supply of 'importables'.

The demand for imports will be the sum of the demands for imported raw materials, consumer and capital goods. From the assumptions made we obtain:

$$M = H \left(a + \frac{1}{g_1} \right) + P (a - 1) + a X + r I \quad (5)$$

2. Import substitution is confined to the sector of finished consumer goods for the sake of simplicity. The same general results would be obtained if import substitution were extended to raw materials, intermediate and capital goods. Past developments in these sectors would be reflected in the values of g_1 , g_2 and r . Also for the sake of simplicity, it is assumed that there is no domestic consumption of exportables, which in any case are assumed to have a perfectly elastic supply schedule.

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Equation (5) yields the level of import demand as a function not only of the level of activity of the various sectors of the economy, but also of investment in the import competing sector³, which may also be expressed as the *change* in the level of production of P .

The conditions under which $\Delta M/\Delta I < 0$ may now be explored. It will be useful to distinguish two cases: a simpler one which may be called the *ceteris paribus* result and a more complicated *mutatis mutandis* case. The first one does not take into account the repercussions which the investment in the import competing sector will have on other sectors of the economy; in terms of our model, this requires the assumption that $\Delta H/\Delta I = 0$, or that $r = 1$ and $b = 0$. It seems that very often analyses of import substitution work with *ceteris paribus* assumptions⁴. As it will be seen, such an approach grossly exaggerates the foreign exchange savings to be obtained from additional investments in import substitution.

Denoting by i the percentage change in investment in the import substituting sector ($\Delta I/I$), the conditions for $\Delta M/\Delta I < 0$ are as follows:

$$i < \frac{z}{r} (1 - a) \quad (6)$$

$$i < \frac{z(1-c) \left(1 + \frac{1}{g_1}\right)}{r(1-c) + a + \frac{1}{g_1}} \quad (7)$$

It can easily be seen that when $r = 1$ and $b = 0$ condition (7) reduces to (6); and that for any set of parameters, inequality (7) will yield a much more strict constraint on the permissible size of i , as the right hand side of (6) will always be greater than that of (7).

3. Similar terms would appear for industries H and X if it had been assumed that they utilized capital goods. As a matter of fact, most investments in import substituting industries tend to have a higher import component and a lower marginal output-capital ratio than investments in agricultural export industries. However, mining export would tend to have a higher import component for investments.

4. For an example see *Análisis y Proyecciones del Desarrollo Económico V; El Desarrollo Económico de la Argentina*, Naciones Unidas, Departamento de Asuntos Económicos y Sociales, Mexico 1959, Parte 2, page 167.

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Consider the following numerical value for the parameters:

		Case A	Case B	Case C
Marginal output--capital ratio	(z)	0.25	0.33	0.40
Import component of investment	(r)	0.40	0.33	0.20
Marginal propensity to consume 'importables'	(a)	0.55	0.45	0.35
Marginal propensity to consume	(c)	0.90	0.85	0.80
Marginal raw material import needs for <i>H</i>	(1/g ₁)	0.10	0.05	0.02

The resulting upper limits for the permissible percentage increase in investment in the import competing industry, if imports cannot exceed the existing level, are as follows:

	Case A	Case B	Case C
<i>Ceteris paribus</i>	28%	45%	130%
<i>Mutatis mutandis</i>	4	9	20

These numerical examples clearly point out the importance of taking into account *all* repercussions of investment in the import competing sector, when computing its impact on the level of imports.

Denoting by *p* the rate of growth of the import substituting sector ($\Delta P/P$), which equals *I/K*, the relationship between *i* and the changes in the rate of growth of the import competing sector is as follows:

$$\Delta p \simeq \frac{\Delta(\Delta P/P)}{p} = ip \tag{8}$$

It may be seen from (8) that the higher the rate of growth of the import competing sector from which we start, the higher will be the absolute change in that rate of growth, for any given value of *i*, and that when *P* grows at a constant rate *i* = 0. Assuming that at the start *p* = 5% the following changes in that percentage rate of growth (Δp) would be obtained as a result of the maximum permissible increase in investment:

	Case A	Case B	Case C
<i>Ceteris Paribus</i>	1.4	2.3	6.5
<i>Mutatis Mutandis</i>	0.2	0.5	1.0

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Case A presents the more unfavorable circumstances from the viewpoint of growth compatible with maintaining a given level of imports, and *case C* the more favorable conditions. The combination of parameters facing any particular country will depend on a number of factors, but especially on the stage of industrial growth in which the country finds itself. The import component of investment is likely to fall as industrialization proceeds, although this may be offset by a falling of the marginal output-capital ratio, as the country enters more difficult and capital intensive stages of import substitution. The marginal propensity to consume goods which are potentially importable may also tend to remain high, and perhaps rise at the expense of home goods, until a very high per capita income level is reached. The over-all marginal propensity to consume is likely to show a slight tendency to fall, while the imported raw material needs of home good industries will tend to show a sharper downward trend in the process of industrialization.

Although the numerical values and definitions given to the parameters mirror reality only in a very rough way, especially in the case of the critical parameter a , they tend to suggest that for most semi-industrialized countries the combination of parameters is likely to be such that it will be difficult for the import competing sector to 'pull itself up by its own bootstraps', in the sense of being able to increase significantly its own rate of growth (say by more than 1%) without going over the existing level of imports. This consideration is strengthened by the fact that 'gestation periods' for the investments in the import competing industries have not been introduced and are not taken into account by inequalities (6) and (7). Thus, it is quite likely that to be able to increase significantly the rate of growth of the import competing sector, while maintaining balance of payments equilibrium, a higher level of exports, a capital inflow, or a reduction in the spending propensities and in the growth of other sectors of the economy will be temporarily required.

For the practical purposes of economic planning, the impact of the increased level of investment in the import competing sector may be broken down into two stages: (a) the 'gestation period' of the net increase in investment, during which $\Delta P/\Delta I = 0$, and imports will rise unambiguously, and (b) when the net increase in investment comes to fruition, and the new level of investment is maintained. In

the second stage imports will fall unambiguously. Thus, all of the pressure on the balance of payments generated by the transition period (which may be defined as the situation in which $i \neq 0$) is concentrated in its first stage by this subdivision. It should be clear, however, that even if the net increase in investment started to produce additional P goods at once, the level of imports would rise during the transition period if the percentage increase in investment went above the maximum set by inequality (7). Once the new level of investment is reached and maintained, old investments coming to fruition will more than offset the import requirements of the new investments, and given the assumptions of the model, there will be a long run tendency for the level of imports to fall.

In the planning of the growth of the import competing sector, it is a popular exercise to calculate the number of years required to recuperate the foreign exchange used up by the import needs of a given level of investment to be carried out in this sector. As a rule, this exercise takes only into account the direct import component of investment, while the whole of the increase in the value added of the import competing sector is taken as the future net saving of foreign exchange. This methodology tends to yield very optimistic results. Assuming gestation periods of one year, it will take (x/z) years after the gestation period is over to recuperate the direct import component of investment, if we consider ΔP as the net foreign exchange saving arising from the given level of investment. Taking into account all repercussions, however, the number of years needed to recuperate all direct and indirect foreign exchange requirements arising from the higher level of activity in the import substituting sector will be given by the inverse of the right hand side of inequality (7). Using the numerical values assumed for the parameters, the following results are obtained for the number of years required for full recuperation:

	Case A	Case B	Case C
Simple assumptions	1.6 years	1.0 years	0.5 years
Mutatis Mutandis	25.1	10.4	5.0

The neglect of the secondary repercussions of investment in the import substituting sector does not necessarily result in a bias in

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favor of investing in this sector, so long as the neglect of these repercussions applies to investments in all sectors of the economy. This may be seen by comparing the full impact of ΔP and of an exogenously given ΔX on the balance of trade, ($B = X - M$). The compared impact on the balance of trade will be:

$$\frac{\Delta B}{\Delta P} = \frac{\Delta B}{\Delta X} \frac{i}{z} \left[\frac{(1-c)r + a + \left(\frac{1}{g_1}\right)}{1 + \frac{1}{g_1} - b} \right] \quad (9)$$

If it had been assumed that ΔX required investment with the same characteristics as that in the P sector, there would be no difference between the degree of pressure exerted on the balance of trade by attempts to step up the rate of growth in either sector, as the secondary repercussions are the same for ΔX and ΔP . However, the methodology which neglects these repercussions by stressing foreign exchange as the key bottleneck, seriously underestimates the role of the propensity to save in determining the degree of pressure on the trade balance.

Finally, it may be observed that the parameter g_2 , which shows the relation between an increase in the value added domestically in the import competing industry and the corresponding increase in the imported raw materials for this industry, does not appear in inequalities (6) and (7), which deal directly with *net* import substitution. The high or low requirements of the import competing industry for imported raw materials affects the argument, up to this stage, only insofar as it calls for some care in the definition of import substitution. It should be noted that g_2 drops out because we have implicitly assumed that domestic factories are able to utilize raw materials with the same efficiency as foreign factories producing importable goods. If the smallness of the domestic market or any similar cause leads to a higher use of raw materials per unit of additional importable goods produced at home as compared with abroad, the foreign exchange savings from import substituting will be naturally reduced, and two parameters should replace g_2 : one for domestic production and another embodied in the imported goods.

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II

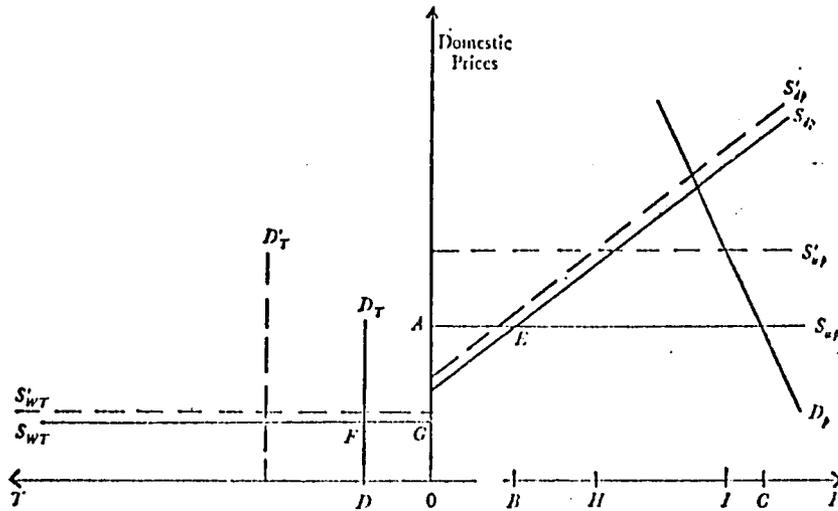
A possible way to stimulate a switch of expenditure from importables to *H* goods, as well as from those sectors of the *II* industry with relatively high import content to those with smaller import content, is through changes in relative prices, especially via changes in the exchange rate. The model presented in *Part I* has ignored this mechanism of adjustment by assuming constant relative prices.

In simple models of the impact of devaluation on the trade balance, it is taken for granted that devaluation will provide symmetrical stimuli to the export and the import competing sectors. Yet in many semi-industrialized countries, existing manufacturing firms in the import competing sector utilizing imported raw materials and intermediate goods consider devaluation a disaster only comparable to credit restriction. Two simple partial equilibrium situations will be presented, one showing conditions under which the impact effect of devaluation does indeed provide symmetrical stimuli to the export and the import competing sectors and another in which devaluation, or any other policy which raises the prices of all imported goods, is harmful to the existing firms in the latter sector.

Figure 1 considers a situation in which there are only two types of imports: M_c and M_t . There is no domestic production which can compete with M_t , although there is domestic production of P which competes with M_c . At a given exchange rate (and a level of *ad valorem* tariff duties, transport costs, etc.), the domestic price of good P is OA , while the schedules for total domestic demand and world and domestic supply are given by D_p , S_{wp} and S_{dp} , respectively. Domestic production of amount OB will generate a demand schedule for imported raw materials, D_t , which is assumed to be perfectly inelastic due to lack of substitutes, in the range OA of prices, falling to zero for higher prices. S_{wt} denotes the world supply schedule for M_t . Net import substitution valued in domestic currency will be equal to $OAE B$ minus $OGFD$. A devaluation of the exchange rate, which raises the domestic price of foreign exchange by 50%, will raise S_{wp} and S_{wt} to S'_{wp} and S'_{wt} , respectively. It will also raise S_{dp} to S'_{dp} , due to the increase cost of the imported raw material. In spite of this gross domestic production of good P will increase by BH , while imports of good P will fall, in addition to BH , by IC due to the nega-

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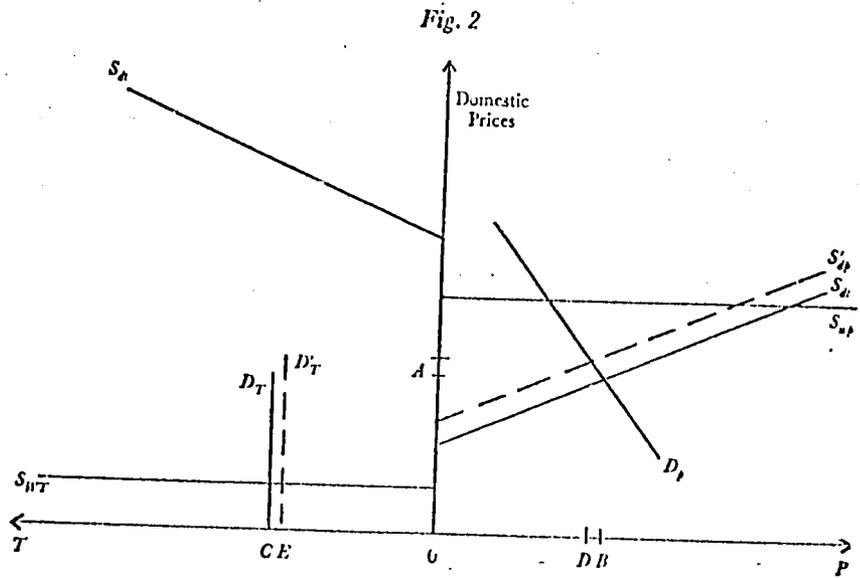
Fig. 1



tive slope of D_p . The demand for imported raw materials will shift to D'_p , but net import substitution will expand, as it may best be seen in a diagram which expresses prices in terms of foreign currency.

The definition of net import substitution as the value added domestically, not as the gross domestic production of good P , makes it clear under the conditions of *Figure 1* that the stimulus of devaluation will be symmetrical, regardless of the imported raw material needs of the import competing and export sectors.

Figure 2 presents a situation in which prohibitive *ad valorem* tariffs on imports of finished good P have shifted S_{wp} upward in such a way that all goods P are domestically produced, under domestic competitive conditions, at price $O.A$ and in quantity OB . Imports are fully made up of raw materials in quantity OC , which enter free duties, and for which domestic manufacture is very difficult, as shown by supply schedule S_{dt} . Under these circumstances a devaluation similar in magnitude to that shown in *Figure 1* will fail to stimulate domestic production of raw materials, and will result in an upward shift in the domestic supply of good P from S_{dp} to S'_{dp} . Thus, domestic production of P will fall by amount DB , bringing about a fall of raw material imports of CE . In this case, the import competing sector will be



adversely affected by the impact effect of devaluation, and the fall in imports will be due to a fall in domestic production and not to an expansion of output as in the case of *Figure 1*. Of course, it is possible that an expansion of the export sector (and of the home good sector) arising from the devaluation will shift D_P to the right, thus offsetting the impact effect at least in part.

The two cases presented represent extreme situations and combinations of the two could yield more complex cases. By lowering S_{IT} in *Figure 2* one could create cases in which the fall in output of the sector producing P could be less or more than offset by an increase in the domestic production of previously imported raw materials. Further situations would be presented changing the nature of the restrictions imposed against imports in *Figure 2*, as well as the assumptions regarding internal competition, but with little gain in insight into the problem.

Several semi-industrialized countries in Latin America seem to be passing through conditions similar to those described in *Figure 2*. A devaluation will then be painful to the existing manufacturing sector, as it will not be able to reduce imports without reducing also the output of existing firms. It can be seen that under these circumstances existing firms will tend to oppose further import substitution,

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unless they can be assured that it will not increase the prices of their inputs. Clearly the best of all possible worlds for firms producing good *P* in *Figure 2* is one with prohibitive duties or restrictions against imports of good *P*, coupled with an overvalued exchange rate, or other types of subsidies, for the importation of raw materials. This snag in 'backward linkage' could become fairly important in slowing down the growth of the more sophisticated branches of manufacturing in semi-industrialized countries.

The case described in *Figure 2* suggests why for many countries changes in relative prices are likely to have a relatively small effect on the demand for imports, especially in the short run. Such inelasticity will be greater, the more valid are the following assumptions:

- (1) A high proportion of the imports is made up of raw materials, which in turn represent small percentages of the gross value of their respective products.
- (2) Imported raw materials are of such a nature that they may not be easily substituted for other inputs available domestically.
- (3) Domestic manufacture of imported raw materials is difficult, and possible only after substantial investments with long gestation periods have been carried out.

Furthermore, for the new sectors of import competing industry, changes in relative prices which make imported capital goods more expensive, also tend to increase the profitability of investment. Thus, with a weak domestic capital goods industry, the change in relative prices could result in a greater demand for imported capital goods, unless there is a compensating fall in investment in other sectors of the economy.

If relative prices cannot be expected to provide a speedy mechanism of adjustment for the transition period, and if the structure of imports becomes more unfavorable to price elasticity as time goes by (at least until a well diversified industrial structure is established), a situation develops in which even a small and falling average propensity to import does not assure us that very serious difficulties will not arise in the economy as a result of external factors. To maintain a given rate of growth of income in the face of a decrease in export earnings would require an increase in the growth of the import

competing sector which is likely to increase the level of imports in the transition period. The only solution may be to decrease the rate of growth of the economy unless new policies again increase the level of exports, and/or the domestic propensity to save.

The case with which marginal domestic savings can be turned into additional foreign exchange will depend on the nature of the goods released from domestic consumption by the higher level of savings. The most favorable situation will be one where the goods freed from domestic consumption are exportables facing a perfectly elastic world demand or are importables for which the world offers a perfectly inelastic supply. In this fortunate situation, neglecting internal transport and merchandising costs, the increase in savings will be fully converted into foreign exchange while the real income of the country will increase due to the improvement in the terms of trade. At the other extreme, if the marginal savings are realized at the expense of consumption of home goods with very low indirect import component, the efficiency with which savings can be translated into foreign exchange will be considerably reduced. At existing relative prices, in the second situation the gain in foreign exchange arising from the marginal savings will not only be smaller than in the first case, but it will also be accompanied with a higher drop in the level of domestic output.

If it becomes necessary to reduce the growth of the economy for the sake of reducing imports, the policy maker will be faced with a tempting but shortsighted way out. A reduction in the rate of growth of the import competing sector will reduce the growth of imports during the transition period, although it will tend to increase it in the long run. Looked at from another point of view, a reduction of investment seems the most 'efficient' way to reduce the growth of imports, as a reduction of investment by one unit (in value terms) will result in a greater fall of imports than a similar cut in consumption expenditures. If to this is added that a possible cut in consumption would affect the existing plants and their workers, while a cut on investment would only affect *potential* plants and workers yet to be employed, the temptations to the policymaker become irresistible.

Finally, it may be noticed that the model of *Part I* would yield income elasticities in the demand for imports which are much higher for transition periods than for the long run. If 'gestation periods'

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were taken into account this difference would even be stronger. Associating transition periods with cyclical movements and the long run with the trend, this result, which summarizes the difficulties of foreign trade bottlenecks, could be tested empirically. For the range of growth in which a country has developed consumer and intermediate goods industries but has not yet developed significantly its capital goods industry, the greater the per capita income the more likely it will be that its short run marginal propensity to import will be proportionally greater than its average propensity to import, due to its dependence on imported capital goods and the cyclical nature of the demand for these items⁵.

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SUMMARY

This paper deals with several issues related to the impact of import substitution on a country's demand for imports. With the help of a simple model, it points out that once a given rate of growth has been reached and is maintained through time, the fact that investment expenditures have a high import component will not give rise to balance of payments difficulties, as the direct impact of this year's investment on the demand for imports should be more than offset by last year's investment in the import substituting industry now coming to fruition. The pressures on the balance of payments will arise during the transition period when a country is attempting to step up capital formation in the import substituting sector. The paper also emphasizes the need to take into account all direct and indirect repercussions of an increase in investment on the demand for imports when estimating the foreign exchange savings to be realized from a given investment project.

The second part of the paper considers the likely effects of a change in the relative prices of imports on the manufacturing sector producing goods previously imported, but which still relies on imported raw materials and intermediate products, and on the demand for imports. Several reasons are given for a presumption against a high price elasticity in the demand for imports, based on the derived nature of a large component of such demand. Given these structural conditions the alternatives open to a policy maker in a semi-industrialized country facing the need to cut back imports are likely to be quite grim.

5. This should not be confused with a difference between short run and long run income elasticities in the demand for imports which arises because the first assumes a given productive capacity in the country, while the latter allows changes in both domestic demand and supply conditions.

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ZUSAMMENFASSUNG

Der vorliegende Artikel behandelt die Auswirkungen der Importsubstitution auf die Nachfrage nach Importen. Mit Hilfe eines einfachen Modells wird gezeigt, dass – sobald einmal eine bestimmte Wachstumsrate erreicht und über die Zeit konstant gehalten wird – keine Zahlungsbilanzschwierigkeiten entstehen, auch wenn Investitionen eine hohe Importkomponente haben. Der Einfluss der Investitionen eines bestimmten Jahres auf die Nachfrage nach Importen sollte nämlich durch die in diesem Jahr wirksamen letztjährigen Investitionen in die Importsubstituierenden Industrien mehr als ausgeglichen werden. Zahlungsbilanzschwierigkeiten entstehen nur während der Übergangsperiode, das heisst solange bis die Kapitalbildung im Importsubstituierenden Sektor einmal in Gang gebracht worden ist. Der Autor betont die Notwendigkeit, bei der Berechnung der zukünftigen Einsparungen an Währungsreserven durch ein bestimmtes Investitionsprojekt alle direkten und indirekten Auswirkungen zusätzlicher Investitionen auf die Nachfrage nach Importgütern zu berücksichtigen.

Im zweiten Teil des Artikels wird untersucht, welche Auswirkungen eine Änderung der relativen Preise auf die Importnachfrage sowie auf die Produktion von Gütern, die früher importiert wurden, und deren Herstellung jetzt noch von ausländischen Rohmaterialien und Zwischenprodukten abhängig ist, haben kann. Da es sich bei einem grossen Teil dieser Nachfrage um eine abgeleitete Nachfrage handelt, kann ferner gezeigt werden, dass die Annahme einer hohen Preiselastizität der Importnachfrage nicht zutreffen dürfte. Berücksichtigt man diese strukturellen Besonderheiten, so kommt man zum Schluss, dass die einem halbindustrialisierten Land offenstehenden alternativen Möglichkeiten zur Einschränkung der Importe kaum sehr vielversprechend sind.

RÉSUMÉ

Cet exposé traite les répercussions de la substitution d'importation à la demande d'importations d'un pays. A l'aide d'un simple modèle, l'auteur montre, que – dès qu'un taux de croissance déterminé est atteint et maintenu constant durant la période – il n'y aura pas de difficultés avec la balance des paiements, même si les investissements ont une composante d'importation élevée. La répercussion directe des investissements de cette année à la demande d'importations devrait être largement égalisée par les investissements dans les industries à substitution d'importation de l'année dernière. Des difficultés dans la balance des paiements s'installent durant des périodes de transition c'est-à-dire jusqu'à ce que le pays ait formé du capital dans le secteur de la substitution de l'importation. Il faut tenir compte de toutes les répercussions directes et indirectes d'investissements supplémentaires à la demande d'importations, lors de l'estimation des épargnes futures des réserves monétaires par un projet d'investissement donné.

ON THE IMPORT INTENSITY OF IMPORT SUBSTITUTION

La deuxième partie considère les répercussions d'un changement des prix relatifs des importations sur le secteur industriel produisant des marchandises autrefois importées, mais dont la fabrication dépend encore maintenant de matières brutes et produits intermédiaires importés, et sur la demande d'importations. Vu que la plupart de cette demande consiste en demande dérivée, on peut en déduire qu'une acceptation d'une grande élasticité des prix de la demande d'importation n'est pas adéquate. Si l'on considère ces conditions structurelles données, on se rend compte, que les alternatives possibles pour un pays semi-industrialisé de restreindre ses importations sont peu prometteuses.