UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO
POSGRADO EN ECONOMÍA

SEMINARIO SEMESTRAL
De los Campos de Conocimiento

Teoría y Método & Desarrollo Económico

Comercio y crecimiento en economías de mediano ingreso: China, Corea y México

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Ciudad Universitaria, Cd.Mx., a 25 de enero de 2018

TRADE AND GROWTH IN MIDDLE-INCOME ECONOMIES.

MEXICO, KOREA AND CHINA[1]

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Introduction

In empirical literature on economic growth, the performance of Latin American countries, and particularly the more industrialized nations, has been compared with that of Asian countries, due primarily to the contrasting economic trajectories these countries have experienced.

The most advanced Latin American countries began their manufacturing development during the economic crisis of the 1930s, and even before then, posting a higher level of output than their Asian rivals from the end of the Second World War until the mid-1970s. Furthermore, the former countries grew at a relatively high rate, similar to that of Asian countries. Yet, starting at the end of the 1970s, their growth trajectory fell and their level of per capita output was soon overtaken by that of Korea and Taiwan, i.e., the two economies of northern Asia that jump-started their growth around that same period. China appeared on the scene somewhat later and its level of per-capita output is closing in or in some cases has overtaken that of some of the more industrialized Latin American

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countries. Thus, for example, while in 1990 the relation between Korea and Mexico's per-capita income with respect to China was equal to 8 and 6, respectively, in 2010, the figures had narrowed to 3 and 1.6, and in 2016 to 2.3 and 1.1. In addition, while in 1990 Korea's per capita income was 1.4 times that of Mexico's, in 2010 and 2016 it was twice the figure posted by Mexico. (see Table 1).

Table 1. GNI per capita (international PPP, constant 2011 dollars)[1]

	1990	**2010**	**2016**
China	990	9,290	15,500
Korea	8,260	30,410	35,790
Mexico	5,840	14,910	17,740

[1]**Source**: World Bank

Furthermore, notwithstanding the progress of its industrial sector, until recently Latin America's manufacturing exports were relatively limited and, in any event, they were far below what might be expected given the countries' level of development, especially when we contrast what the Asian countries were achieving or had achieved.

Frequently, this relatively slower pace with respect to the successful performance in Asia has been associated with Latin America's insufficient development of manufacturing exports. Thus, it was argued that while the Asian countries had opted for an export strategy that simulated economic growth, Latin America had chosen a strategy that emphasized import substitution, which in turn discouraged growth.

However, this latter aspect began changing in the mid-1980s. Mexico in particular became a significant exporter of manufactures but without subsequent high rates of economic growth, in contrast to what occurred in Korea and China, which continue posting high rates of development. If we consider that these three countries opted for export-led

growth models, the first two would be examples of the success of the strategy, while Mexico's performance would register as a disappointing outcome.

To explain Mexico's relative economic stagnation, recently observers have ceased pointing to its **insufficient export dynamic,** but rather choose to associate its unsatisfactory results to the **characteristics** of its export sector, just as the success of Korea and China has been attributed to the characteristics of their own export sectors.

The purpose of this paper is to analyze the effects of foreign trade on growth in the three countries chosen for this study. First, we shall try to determine if, in fact, the characteristics of Mexico, Korea, and China's export sectors are different enough to explain such wide discrepancies in their global economic trajectories. We will show that neither the rates of export growth (excluding China), nor the characteristics of the export sectors are so dissimilar. In view of our findings, we next examine the other side of the coin, i.e., imports, arguing that it is here where the countries' foreign-trade patterns diverge. These differences have surely played an important role in the differences in Mexico's growth compared with the other two countries.

We have structured this paper as follows. In section I, we briefly review the theoretical antecedents regarding the relationship between level and growth of economic activity and foreign trade, from which we later develop our empirical analysis. In section II, we describe the performance and basic characteristics of the export sectors of the three aforementioned countries. Based on this section, we can conclude that notable similarities exist in the three countries' export sectors characteristics. Section III examines the countries' imports, and here we find that this seems to be the crucial factor in explaining why, given the three economies' similar export trajectories, growth outcomes have been different. We end our paper by discussing conclusions.

I. Theoretical background

Numerous authors have studied the relationship between foreign trade and growth, focusing either on demand, or supply, or both. With an approach centered on demand, R. F. Harrod was a pioneering author, insofar as he first proposed the concept of the foreign-trade multiplier (Harrod, 1933). Further, Hicks (1950) is credited with the concept of the foreign-trade super-multiplier, which, in addition to the immediate effect that exports have on demand through the foreign-trade multiplier, adds the lagged effect on investment that occurs in response to the stimulus created by the increase of income. Thirlwall (1979) and Kaldor (1981) later reformulated the findings of both authors in dynamic terms.

In addition, we should account for the role of exports by referencing their effects exclusively on supply. In this context, we draw attention to Raúl Prebisch's contributions.

Before joining the United Nations, during the 1930s and early 1940s, when he occupied an important post among the highest echelons of economic authorities in his native Argentina, Prebisch developed groundbreaking ideas on foreign trade and growth. Based on studies of Argentina, he argued that a fundamental characteristic of backward economies is that, in these countries, sectors that produce both basic inputs for general use and capital goods are insufficiently developed. This means that significant amounts of these goods must be imported. In turn, this indicates that the country's level of output is strongly tied to the level of imports obtained. Given that imports are normally financed by foreign currency obtained through exports, Prebisch concluded that the latter pay a key role in

economic growth[5]. Later, while at ECLAC, he advanced the idea that the rate of output growth cannot be higher than a rate compatible with the external balance.

For a better understanding of this latter idea of Prebisch's, we should introduce the concept of "output at external equilibrium," which is the level of output generated by a demand for imports that can be financed by current exports. In this regard, Prebisch (1954: 410) wrote, "The rate of income growth will coincide with the rate of export growth divided by import elasticity." Setting the rate of growth compatible with the external equilibrium as y^X, Prebisch's formulation is expressed as:

$$y^x = x/p \qquad (1)$$

As the reader will have noted, equation (1) is identical to what current Keynesian literature calls "Thirlwall's Law," given that Thirlwall reintroduced (without previous knowledge) Prebisch's old notion (Thirlwall, 1979). Like Prebisch, but based on Keynesian fundamentals, Thirlwall held that, even in advanced economies, the rate of real output growth could not drift substantially away, or for very much time, from the rate of output at external equilibrium. Were it to do so, this would create external fragility that could become a foreign-trade crisis. Yet in his groundbreaking article, Thirlwall (1979) went even further and demonstrated that, in effect, both growth rates behaved similarly, judging from numerous series from advanced economies.

[5] Prebisch was aware of the effect of exports on aggregate demand. In fact, in his articles on the dynamic economy, the cyclical movement of the economy is determined by the cycle of exports, not by the investment cycle, as most theories of the economic cycle argue. Yet in his applied studies, the main role of exports is that of a foreign-currency supplier. See Pérez and Vernengo (2016).

Now, for the discussion that follows, we should recast slightly the concept of output at external equilibrium. Let μ be the import coefficient of exports (i.e., the imports needed to produce a unit of exports.) Then the output at external equilibrium Y^X can be expressed as:

$$Y^x = \frac{X(1-m)}{m} \qquad (2)$$

such that the numerator of the equation (X[1-μ]) indicates the net supply of foreign currency provided by exports. The equation shows that the output at external equilibrium will be such that imports (set by output and the import coefficient *m*), are equal to exports (net of imports). As stated in (2), the magnitude of the supply effect of exports depends on domestic value contained in them[6]. To the extent that domestic value added in a country's exports is higher, the supply effect of exports will be higher.

If Ψ is the coefficient (1-μ), then the rate of growth of the output at external equilibrium will be equal to:

$$y^{x}' = x' + \Psi' - m' \qquad (3)$$

Regarding equations (1)-(3), we should elaborate on two points. The first is that here exports are relevant not just and not so much because they create demand, but also because they also provide the foreign currency needed to make output possible. Second, the level and the changes in μ, the import coefficient of exports also exerts influence in determining the level and the rate of growth of output at external equilibrium.

These three, fairly simple equations allow us to contrast Prebisch's view from a different opinion that highlights the effect of exports on growth by stimulating demand.

[6] Of course, the demand effect of exports depends on the domestic value added that they incorporate.

Prebisch's view, which can be understood as an initial definition of what today we know as "balance of payments constrained growth," states that the main role of exports has to do with the supply of foreign currency and, thus, with the level of output compatible with the external balance. Naturally, Prebisch's formulations recognize that exports directly or indirectly contribute to demand, while also recognizing, implicitly at least, that governments have the ability to manage aggregate demand by means of economic policies. So, when exports grow, such that it is possible to grow more swiftly without an external disequilibrium, the government can implement monetary and fiscal policies that can take the level of real output to a level compatible with the output at external equilibrium; the opposite occurs when foreign demand for exports declines. In other words, the economy's actual growth rate will tend to approximate the growth rate at external equilibrium.

As previously mentioned, the growth rate at external equilibrium depends on both the supply of foreign currency, and thus export growth, and on the import elasticity with respect to output. In what follows, based on our conceptual framework, we shall examine the effects of supply and demand of foreign currency and of induced demand caused by exports, as well as the dynamics and characteristics of the three countries' imports.

II. Characteristics and performance of exports

1. Export growth

Table 2 depicts some of the basic background regarding China, Korea, and Mexico's export dynamism and performance. We can see that the three countries have posted good manufacturing export rates, thus significantly raising their shares of world exports. China stands out particularly: in 1990, it contributed 2.7% of world exports, which grew to 13.8% in 2011. In 2010, Mexico's exports were 1.7% of world exports, while those of Korea and China were 2.9 and 8.5%, respectively, of the world total (World Bank, *World Development Indicators*).

Table 2. Manufactured exports

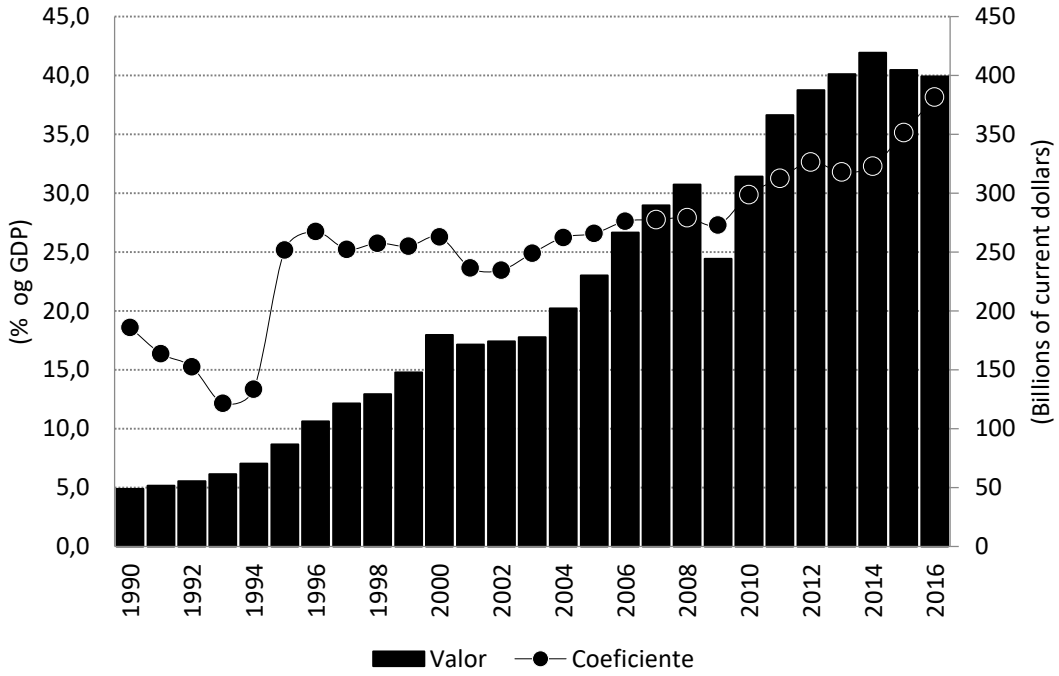
	Manufacturing exports (millions of current dollars)1				Percentage in terms of world manufacturing exports[1]			
	1995	**2000**	**2005**	**2011**	**1995**	**2000**	**2005**	**2011**
China	93,733	189,264	590,148	1,495,440	2.7	4.4	8.9	13.8
Korea	106,867	149,938	255,050	495,395	3.1	3.5	3.9	4.6
Mexico	57,935	128,663	157,971	239,375	1.7	3	2.4	2.2

[1] **Source**: OECD. Stat – TiVA.

Graphs 1 to 3 display the performance of export value in Mexico (beginning in 1990, when its economy had already begun an outward-looking strategy), in China (beginning in 2002, the year it joined the WTO), and Korea (also beginning in 1990.) We see that between 1990 and 2016, Mexico's exports increased by a factor of 9.7, rising from 40.7 to 399.1 billion dollars. During the same period, Korea's exports increased from 73.7 to 596.1 billion, increasing by a factor of 8. China's exports, which in 2002 amounted to 325.6 billion dollars, grew to 2.2 trillion in 2016 (increasing by a factor of 6.8 in 12 years, shorter than the period studied for the other two countries.) In Mexico, the coefficient of

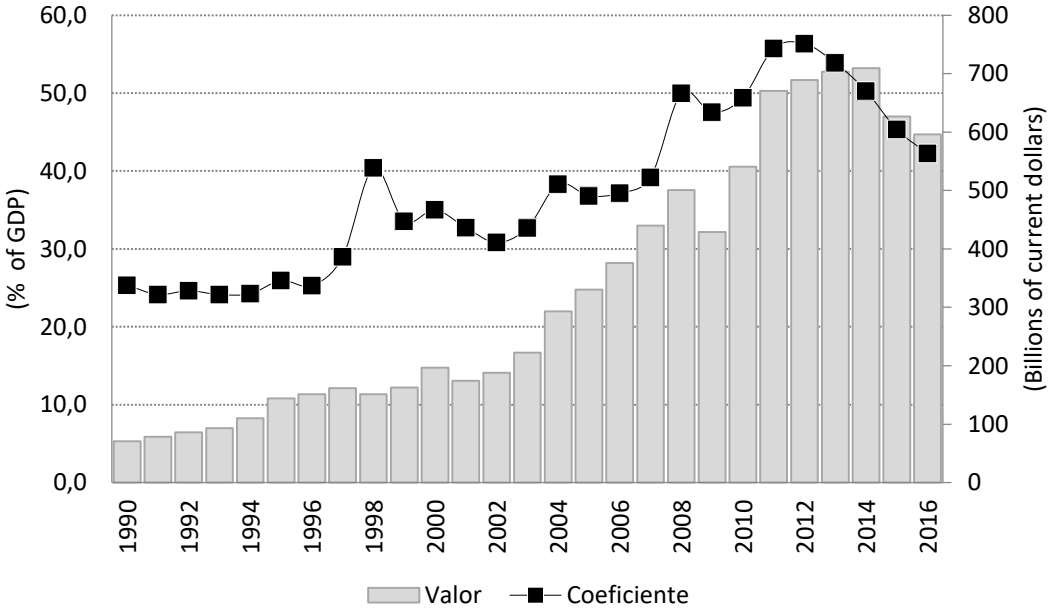
exports as a share of the GDP grew from 19 to 38%; in Korea the same figures were 25 and 42%, and in China, from 22 to 36% in 2006, which later fell to 19% in 2016.

Graph 1. Mexico. Value and coefficient of exports



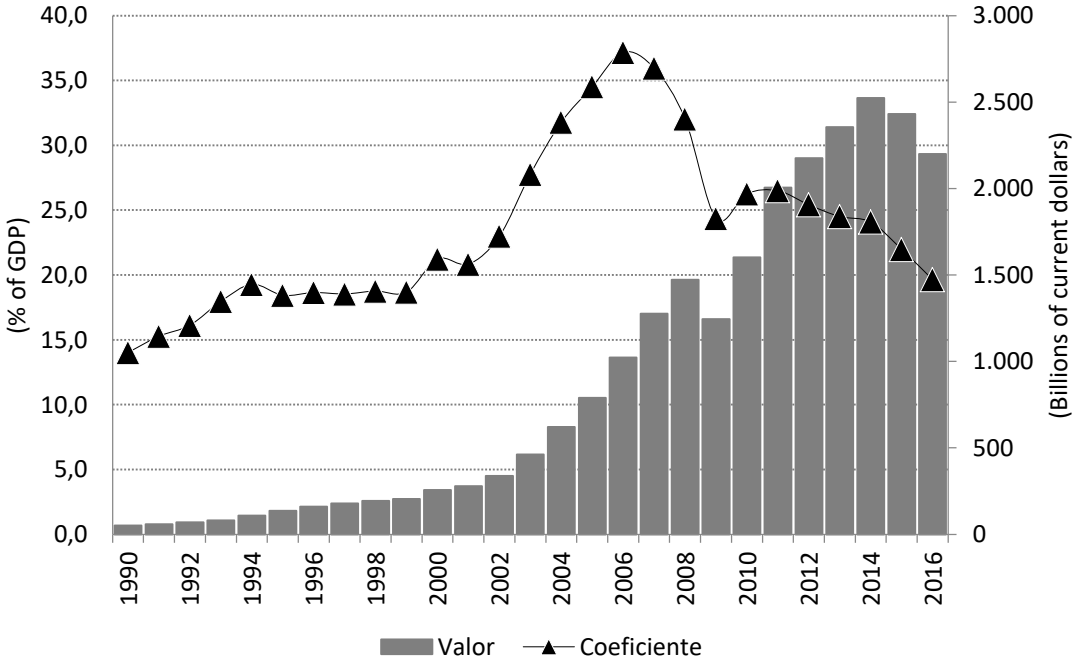
Source: World Bank, *World Development Indicators*.

Graph 2. Korea. Value and coefficient of exports



Source: World Bank, *World Development Indicators*.

Graph 3. China. Export value and coefficient



Source: World Bank, *World Development Indicators*.

To sum up and finish this point, the three countries have attained very important export performance. China is a truly exceptional case, given that between 2002 and 2016 its exports grew around 15% per year. The rate of export growth of Mexico and Korea was also notable, with an annual rate of 9.1% for the former and 8.3% for the latter during 1990-2016. In spite of the fact that Mexico's exports grew faster than Korea's, its output grew at a significantly lower pace. This is a precedent to keep in mind during the following discussion, since it suggests that the differences in the countries' export dynamics are insufficient to explain their differences in global economic growth.

2. Composition of exports

Table 3 shows the composition of exports for the three countries considered here. We can see that in all three the largest share of exports comes from the manufacturing sector: in Mexico, manufactured exports are around 70% of the total, with Korea and China surpassing this percentage.

Table 3. Composition of exports (percentage of total exports; data from agriculture, forestry, hunting and fishing, and services are excluded. Averages for 1995, 2000, 2005, 2009, and 2011)

	Mexico	**Korea**	**China**
Mining	10	0.0	1.1
Manufacturing	69.3	75.7	72
Natural-resource intensive manufactured goods	16.1	27.1	28.7
Technology-intensive manufactured goods	47.6	45.8	34.7
Machinery and equipment	5.8	5.4	5.8
Electronic, electrical, optical equipment	25.3	25.5	25.3
Transportation equipment	16.6	14.9	3.6

Source: OECD-TiVA.

The most relevant differences in the export structure of these countries are:

1. In Mexico, primary exports, basically from the mining sector, are significantly more important than in the other two countries.

2. After classifying natural-resource intensive manufacturing exports (food products, beverages and tobacco; textiles, wearing apparel, leather and related products; wood and paper products, and printing; chemical, rubber, plastics, fuel products, and other non-metallic mineral products; and basic metals and fabricated metal products, except machinery and equipment), and technology-intensive exports (machinery and equipment –includes electrical, electronic and optical equipment; and transport equipment), we can see that in all three countries the latter exports have the greatest weight. Of China's exports, 35% belong to this category; the corresponding figure for Mexico and Korea is above 45%.
3. It is noteworthy that the share of natural-resource intensive manufacturing exports is significantly more important in Korea and China (around 28%) than in Mexico (16%). Mexico's low percentage in this regard is somewhat surprising, because the country has abundant natural resources, possibly to a greater degree than the other two countries[7]. It would seem that the Mexican government has not prioritized these types of manufactures, nor have the multinational corporations with investments in the country.
4. Generally, it is recognized that, *ceteris paribus*, exports of advanced technology manufactured goods exert greater multiplier and accelerator effects on demand than exports with less technological content. If this were the case, it would seem that Mexico is in a privileged position vis-à-vis the other two countries, precisely

[7] We have not located data that cover countries' natural resources in order to have a statistical basis for comparing the three countries referred to herein. We would point out, however, that according to the FAO, while China and Korea had 0.08 and 0.03 hectares of arable land per person, Mexico had 0.19 hectares.

because the relative weight of its exports of technology-intensive goods is the highest of the three.

The technological nature of exports, however, is not the only factor that has an impact on a country's export dynamics. Nor can it totally explain export-induced demand for the others sectors of an economy. The demand for domestic inputs in the export sector is also very important, as is the other side of the coin, i.e., its demand for imported inputs. If the import coefficient of exports is high, there will be diminished effect both on internal demand (and thus its "multiplier-accelerator" effect), as well as on the net supply of foreign currency to which exports contribute (see equations 1-3). We now further discuss this point.

3. Import intensity of exports and net supply of foreign currency

A somewhat disseminated interpretation holds that the factor limiting the multiplier-accelerator effect of Mexico's exports is its excessively high import coefficient of exports. Thus, for example, one author writes, "This expansion of exports has had a much weaker impact than forecast for the entire Mexican economy, especially regarding growth, investment, productivity, and wages. This has been particularly associated with the collapse of the 'export multiplier' or the 'delinking' of the export sector from the rest of the economy" (Palma, 2005: 943). He adds further on, "There were hopes that the Mexican model would lead to relatively balanced growth between exports and the manufacturing sector's GDP. The perennial low amount of value added in manufacturing exports, the persistently high spill-over effect on imports (that minimized the 'export multiplier'), the persistent lack of 'direct' and 'indirect' linkages among these exports and the rest of the economy…" were effects that were not considered by the architects of the reforms (Palma, 2005: 957). Palma also maintains (2005: 961) that in 2000 the manufacturing exports of

Mexico and Korea were similar in value, but that the manufacturing value added in Korea was double that of Mexico's, while requiring half as many imports to be generated.

It is possible that Palma based his conclusions on statistics that were inappropriate. Recently, due to studies undertaken by the OECD, we have access to more precise statistics. The latter are depicted in Table 4 below. From the figures therein, we can see that the external component (i.e., the imported component) in Mexico's exports is **not higher** than that of the other two countries. We also see that in the case of Korea, foreign value added in exports has tended to increase quickly, its growth rate and level easily surpassing those of Mexico and China.

Table 4. Net supply of foreign currency per unit of exports

	1995	**2000**	**2005**	**2009**	**2011**
Mexico	0.73	0.66	0.67	0.67	0.68
Korea	0.78	0.70	0.67	0.63	0.58
China	0.67	0.63	0.63	0.69	0.68

Source: OECD-TiVA.

Therefore, according to our results, the Mexican export sector does not seem to have more disadvantageous characteristics in terms of its demand for imported inputs than the other two economies. First, in practically every year the imported component of exports has been lower in Mexico among the three countries. Second, Mexico's import elasticity for exports is in an intermediate position, higher than China's but much lower than Korea's.

To express this in terms of our previous equations: If we compare Mexico with Korea, while the net supply of foreign currency per unit of exports (i.e., the (1-μ) numerator in equation (2)), was 0.58 for Korea (1.00-0.416, see Table 4), it was 0.68 for Mexico (2011 data). This means that, for example in 2011, while Korean manufacturing exports of

more than 495 billion dollars supplied the country with 289 billion dollars, Mexico's manufacturing exports, on the order of 239 billion, i.e., less than half of Korea's, supplied the country with 163 billion. Furthermore, while in Korea the import coefficient of exports grew between 2005 and 2011, in Mexico it shrank (see Table 4). This also means that while the rate of output growth compatible with external equilibrium tended to decrease in Korea, in Mexico it tended to increase slightly.

We can conclude, then, that beyond what these problems might mean for the Mexican export sector, apparently it did not fail in its principal role: providing foreign currency for the rest of the domestic economy. Nor does it seem correct to say that it provided less demand stimulus to the rest of the economy than what occurred in the other two countries.

III. Evolution and characteristics of imports

We begin with the data for the three countries in Table 5 that depict three coefficients of import elasticity with respect to output, export, and domestic demand. We can see that the first indicator is notably higher in Mexico than in the other two countries during both 1996-2011 overall and for each phase in which this period is divided, except during 2006-2011, in which the elasticity in Korea was slightly higher than Mexico's. Between 1996 and 2011, the import elasticity with respect to output in Korea was 1.9 and in Mexico, 2.9. We note here that, by contrast, the import elasticity with respect to exports in Mexico was 1.2 between 1996 and 2011, while in Korea was 1.5. Therefore, it is difficult to attribute to the export sector the enormous increase in the coefficient of imports in Mexico's economy. We see that in general the coefficient of import elasticity with respect to exports in Mexico is slightly lower than in Korea and China. Data for import elasticity with respect to exports back up the conclusion in section 2 that the difference between the countries is not because

Mexico has a higher import demand for exports than the other two countries. From this, we can conclude that the differences in the three countries' import intensity stem from the import component used to satisfy domestic demand. We can see that this coefficient is higher in Mexico for all of the periods considered here than in the other two countries, especially with respect to China.

Regarding this point, an author (López, 2017) indicated, "the fundamental difference in the evolution of Mexico's foreign trade compared with Chinese or Korean has to do not only with export dynamics… equally or more important than that, is that …the elasticity of Mexican imports…while in Mexico about 30 percent of the growth in domestic demand leaked abroad because this demand was satisfied with imports, in China and Korea that part leaking abroad was just 18 percent. Or, to better illustrate the idea: if the elasticity of imports in Mexico in the period 1992-2011 would have been the same as in China or Korea, the country could have grown at an annual rate of 5% (almost twice the one actually achieved) maintaining balanced foreign trade."

Table 5. Import elasticities

	Korea				**Mexico**				**China**			
With respect to…	1996-2000	2001-2005	2006-2011	1996-2011	1996-2000	2001-2005	2006-2011	1996-2011	1996-2000	2001-2005	2006-2011	1996-2011
output	1.4	1.8	2.5	1.9	3.6	2.1	2.3	2.9	1.4	2	0.8	1.3
exports	1.5	1.3	1.7	1.5	1.4	0.8	0.9	1.2	1.3	1.1	0.7	1
domestic demand	1.6	1.7	2.2	1.8	2.9	1.8	2.4	2.6	1.2	2	1	1.3

1 Data for 2009 are excluded in calculating the import elasticity with respect to output and with respect to exports. Data for 2008 are excluded in calculating the import elasticity with respect to domestic demand, since the Asian economic crisis distorts the data.
2 Data for 2001 are excluded in calculating the import elasticity with respect to output since the decrease in output during that year distorts the data.

Below we will discuss further the characteristics of imports in the three countries in an effort to explain where difference lie that explain the import dynamic in satisfying domestic demand in the three economies. To this end, we break down imports into two categories according to their use: imports for producing exports (M-X), and imports for other uses (M-DI), which might entail consumer goods, capital goods, or inputs for domestic production of goods for the domestic market (Table 6). Imports for producing exports are equivalent to the imported component in exports or foreign vale added included in exports.

Tabñe 6. Use of imports: to produce exports (M-X) and to satisfy internal demand (M-DI). (average % of exports for the following years: 1995, 2000, 2005, 2009 y 2011

	Mexico		**Korea**		**China**	
	M-X	M-DI	M-X	M-DI	M-X	M-DI
Total imports	31.1	68.9	34.6	65.4	39.6	60.4
Agriculture, forestry, hunting and fishing	7.4	92.6	1.7	98.3	4.3	95.7
Mining and extraction	40.9	59.1	0	100	9.7	90.3
Manufactures	37.7	62.3	58.1	41.9	60.8	39.2
Natural-resource intensive manufactured goods	13.6	86.4	55	45	53	47
Technology-intensive manufactured goods	61.9	38.1	72	28	65.7	34.3
Services	5.2	94.8	14	86	5.8	94.2

Source: OECD-WTO, TiVA

We can see that in almost all cases the proportion of imports used in Mexico to generate exports is below that of Korea and China. In total imports, the proportions are 31, 35, and 40%, respectively; in manufactured imports, the respective percentages are 38, 58, and 61%; in natural-resource intensive manufactures, the figures are 14, 55, and 53%; and in technology-intensive manufactured imports they are 62, 72, and 66%. Therefore, in all cases, the proportion of imports used to satisfy the domestic market is higher in Mexico

than in the other two countries. The greatest differences occur in natural-resource intensive manufactures. An overwhelming amount of Mexico's are used to satisfy the domestic market, while in Korea and China somewhat more than half of these imports are transformed to manufacture goods for export. We note in particular the fact that between 70 and 95% of Mexican imports of textiles, chemical products, and metallic products go to satisfying the internal market (OCDE, TiVA).

The large proportion of natural-resource intensive manufactured goods that are imported to satisfy domestic demand in Mexico largely explains the high import elasticity of the economy as a whole and internal demand in light of their weight in total imports. In Table 7, we see that they make up 31% of the country's total imports, a significantly higher proportion than in Korea or China (23%).

Table 7. Break down of total imports (average % of imports in 1995, 2000, 2005, 2009, and 2011; excludes agricultural and service imports)

	Mexico	**Korea**	**China**
Mining and extraction	1.3	16.3	8.8
Manufactures	78.4	53.6	61.6
Natural-resource intensive manufactured goods	30.7	23	23
Technology-intensive manufactured goods	38.8	25	33.4
Machinery and equipment	8.4	6.7	8.2
Electronic, electrical, and optical equipment	19.8	15.4	21.7
Transportation equipment	10.6	2.9	3.5

Source: OECD-WTO, TiVA.

To conclude our analysis, Table 8 shows the balance of trade in goods and services in Mexico and Korea by sector of activity. In terms of Mexico, we highlight the following facts. First, trade in manufactures runs a deficit. Second, the largest deficit is found in trade in natural-recourse intensive manufactures, which reached during the years studied herein

an annual average of 26 billion dollars, quickly growing to 51.4 billion dollars in 2011. This may be due to the increase in the price of raw materials that occurred in the mid-2000s. Most of this deficit is explained by the trade in chemical products and non-metallic minerals, in the sectors of fuels, chemicals, plastics (to a lesser degree), and basic metals. The trade deficit in these areas is financed with the surplus posted in the trade of mining, transportation equipment, and optical and electrical equipment.

In contrast to Mexico, Korea has an enormous surplus in the trade in manufactures, both in the total as well as in resource-intensive and technology-intensive manufactures. Given that Korea is a net importer of primary goods and has a surplus in the trade in natural-resource intensive manufactures, we conclude that the raw materials that it imports are processed in the country, some of which are exported with the value added by the processing of primary goods. This clearly contrasts with Mexico: foreign trade in primary goods enjoys a surplus, while trade in manufactures that transform primary goods runs a deficit. As mentioned previously, Mexico would seem to be better endowed with natural resources than either Korea or China. If this were the case, the data discussed here suggest that one of the problems faced by Mexican industry comes from the weakness of the industry that processes the natural resources with which the country is richly endowed, which means that the country is forced to import large amount of natural-resource intensive manufactures in order to meet domestic demand. The other two countries are importers of primary products and semi-processed manufactured products that are transformed domestically and are largely exported, incorporating domestic value added. This undoubtedly acts as a hindrance that weakens the growth effect of Mexico's export performance.

Table 8. Goods and services trade balance[1] (billions of dollars, averages for 1995, 2000, 2005, 2009, and 2011).

	Mexico	**Korea**	**China**
Total	-9,108.30	17,276.00	117,541.1
Agriculture, hunting, forestry, and fishing	-1,430.40	-5,730.00	12,400.56
Mining and extraction	19,659.00	-58,825.10	-88,482.7
Manufacturing	-25,984.80	94,369.00	205,485.6
Natural-resource intensive manufactured goods	-34,677.10	18,126.00	64,291.70
Technology-intensive manufactured goods	16,640.00	85,519.80	169,180.80
Other manufactures	-7,947.70	-9,276.80	32,986.0
Services	-862.2	-9,972.70	12,009.3

[1] Balances obtained by taking the difference between exports of industry *i* and imports from industry *i* from the rest of the world**.**
Source: OECD-WTO, TiVA.

IV. Conclusions

1. The purpose of this paper was to contribute to a greater understanding of the relation between foreign trade and economic growth. To this end, we analyzed the situation of three countries, China, Korea, and Mexico, that in recent decades have demonstrated very similar traits regarding their export dynamics and composition, but with appreciably different growth trajectories.
2. We have shown a somewhat widely held explanation regarding the weak effect of exports on growth in Mexico, i.e., the large import component of its exports, does not seem to be right. In all three countries, there is substantial foreign value added incorporated in exports, and, furthermore, in Korea this factor is clearly the highest.
3. This led us to search for an explanation of the phenomenon that accounted for imports. We showed that the differential trait among the three economies lies in the

large import elasticity with respect to output in the Mexican economy, explained for the most part by the large elasticity of imports used to satisfy domestic demand.

4. In particular, the mayor difference among the three economies lies in the substantial weight that natural-resource intensive manufactured imports have in Mexico, mostly used in the domestic market. This situation gives rise to the deficit that Mexico has in natural-resource intensive manufactured trade, which is practically the only type of trade where the country runs a deficit. This contrasts with Korea and China's trade surplus in these products, together with a trade deficit in agricultural products and mineral raw materials.
5. The inequalities that we have discussed do not totally explain why the development trajectories of these three countries diverge, and particularly why the Mexican economy has posted much slower economic growth. However, these inequalities are an important factor that helps us understand these divergences, as well as the relative lag in Mexico's economic performance.
6. Therefore, in terms of export policies, an error that Mexico seems to have committed is its neglect of the natural-resource intensive manufacturing sector. Given their wide distribution in the country, the production of these manufactures involves very few imported inputs. Growth in this area would not only make it feasible to substitute imports, it would also increase exports with a large domestic value added component.

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