

# Putting the eggs in multiple baskets: export promotion in Colombia during the 1960s

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## Abstract

In this paper, I assess how the export promotion package of the 1960s in Colombia fostered minor exports. I build on the historical background of the country's external sector to explore the dynamics of these effects throughout different waivers of export promotion, particularly, one in 1960 and another one in 1967. Exploiting a quasi-experimental approach in the context of a gravity model, I find an average effect of the policy intervention of 550%, with larger effects for exports towards Central America, the Caribbean and the United States. Manufactures had their own export promotion boost, the Vallejo Plan, which accounted for an average effect of 1300%. Furthermore, post-intervention estimates grew on time, especially after the 1967's final waiver. The paper contributes to the history of export promotion schemes and the study of minor exports, a branch of literature traditionally aligned towards times series approaches that was rapidly transformed due to the shifts in the dynamics of local development strategies and the international economy.

Keywords: Export promotion, difference in difference, gravity model, balance of payments crises

JEL Classification: B27, C23, F14, N1, N76

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# 1 Introduction

The quest for an export takeoff has been a constant for Colombian policymakers. Even though their strategies have changed throughout the years from a protectionist and state led export promotion to a liberalized and market led one<sup>1</sup> the target remains the same: how to diversify the export basket in a way that reduces the dependency on unstable commodities? During the 1960s, policymakers found a particular answer for this question, in a particular context. State led<sup>2</sup> export promotion was an urgent measure to solve a two side, linked problem: (1) the excessive concentration of the export basket in coffee and oil exports (96% in 1948) and (2) the permanent state of risk upon balance of payments crises. However, efforts to deal with (1) and (2) not always traveled the same paths and were in a constant conflict. Thus, what was good for reducing (1), e.g. a higher exchange rate for other exports, damaged what the alternatives to solve (2) were standing up for, e.g. a simplified exchange rate system.

Indeed, the 1960s was a particular stage of Colombia's economic history. It belongs to the epitome of what was known as the state-led industrialization era, which started with the Great Depression of the 1930s and intensified during the postwar years. Furthermore, the period between 1967 and 1974 was known as the golden age, one in which diversification achieved its major rates in history and external capital flows were stabilized, managing to solve the trade-off between (1) and (2). However, these features can't be interpreted on the sidelines of a much intense process of transformation of both Colombian society and the state. Thus, the course of history during these years is the product of new ways of thinking the economy, the role of the state and its intervention<sup>3</sup>, the appearance of new actors in society<sup>4</sup>, and the new conceptions of what development must be.

Thus, there were some forces that shaped development, either external -the US and multilateral agencies recognized the importance of Latinamerica's development-<sup>5</sup> and internal, the latter as a pragmatic response -which consisted mainly of the

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<sup>1</sup>However, since the market reforms of the 1990s, a national development bank -Bancoldex- has been active in promoting and funding minor exports.

<sup>2</sup>I use the term "state led" instead of "import substitution, which is more accurate, following Bertola and Ocampo (2013).

<sup>3</sup>For instance, Ocampo and Tovar (2000) argue how Colombian reforms of 1936 and 1945 introduced the novel concepts of "intervention" and "planning" in the jargon of policymakers.

<sup>4</sup>This included the appearance of labor unions, entrepreneurial associations, peasant movements, technocrats and the political economy dimension -and restrictions- that it entailed.

<sup>5</sup>However, besides the creation of institutions such as the Interamerican Development Bank (IDB), a consensus surged about the opportunities that the industrialization of developing countries represented for investment and sales of machinery and equipment.

modification of the terms of trade against primary products, the creation of state enterprises and development banks, and the rationing of foreign exchange reserves throughout multiple exchange rates- to a permanent state of balance of payments crises due to the dependence on one unstable commodity, the pressures of new social actors, and what some authors have called externally determined financial austerity<sup>6</sup>.

In this sense, the ideas of state led development were pragmatic in the sense that were intrinsically linked the unstable conditions of the external sector. Moreover, some authors have argued that these ideas were shaped beyond particular ideologies -such as Keynesianism-, which some branches of the literature have used to oversimplify this process<sup>7</sup>. Paradoxically, the countries that exploited Keynesian active policy to manage the aggregate demand were the developed ones. On their behalf, the economic cycles associated to external shocks in developing countries restricted their ability to expand the aggregate demand during crises (Ocampo, 2018).

Hereof, we can't discard the fact that big governments were not a particular creation of developing countries' policymakers but a common practice in the rest of the world, particularly, the developed one. Consequently, an eclectic model surged, in which, beyond the combination of an active intervention in the external sector with conservative fiscal and monetary policies, policymakers were able to recognize the importance of export promotion and outward development when the benefits of import substitution and inward looking development -the ones defended by the ideologues- were exhausted due to the unstable external forces the country had to face (Diaz-Alejandro, 1973). Additionally, some authors have argued that the import substitution model was merely overlapped with a persistent primary-export model (Ocampo, 2018). In this sense, beyond outweighing the costs of the diminishing returns of import substitution, export promotion -the major component of the eclectic model implemented in Colombia- played an important role in three areas: (1) reducing the volatility<sup>8</sup> of external income associated to the high dependence towards one commodity; (2) generating foreign exchange reserves to finance development; and (3) expand markets to foster production branches with major restrictions in local markets. Particularly, export promotion

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<sup>6</sup>This phenomenon recalls the propensity to booms and busts of Latinamerican economies due to the instability of external financing, which contributed both to the end of the export age during the Great Depression and the one of the industrialization age in the 1980s with the Latinamerican crisis.

<sup>7</sup>However, we can't neglect the influence of the ideas of the Economic Commission for Latinamerica (ECLAC) during the time.

<sup>8</sup>This volatility was put forth throughout delays in capital stock creation, the hindering of economic and state activities, compromised fiscal and monetary policy and impeded economical adjustments that didn't sustain in higher levels of inflation (Carrasquilla and Suescun, 1987; Ffrench-Davis and Piera, 1978).

was an instrument to tackle down the costs associated with these issues, which were easily transmitted -as a result of the dependence from coffee and its linkages to domestic markets- to the real economy and restrained long run growth and development (Carrasquilla and Suescun, 1987; French-Davis and Piera, 1978; Ocampo and Tovar, 2000).

In this paper, I try to assess how the export promotion packages set up in Colombia during the 1960s fostered the takeoff of what are known as minor exports<sup>9</sup> in a way that (1) and (2) were both tackled, which led to the major period of export diversification in the country's history. I build on a brief but exhaustive historical background of Colombia's external sector vicissitudes during the 1950s and 1960s, emphasizing in the major characteristics of its balance of payments, the policy challenges that its instability entailed, and the different waivers of export promotion schemes.

Thus, I exploit a quasi-experimental framework in the context of a gravity model in which some sectors minor exports were benefited from the export promotion package and some the traditional ones were not, using a novel dataset digitalized from various issues of Colombia's Foreign Trade Yearbooks (FTY), between 1951 and 1973 and additional country specific data from CEPII's gravity databases. I gather data for export values in dollars at the country and industry level which I deflate with producer prices indices for emerging economies. Using a difference in difference approach I try to assess a causal effect of export promotion on minor exports, using high dimensional fixed effects to account for endogeneity and dealing with excess number of zeroes in the export matrix (41%) with a Poisson pseudo maximum likelihood estimator, following Santos Silva and Tenreyro (2006) and Wooldridge (1999; 2010). This represents an alternative approach to traditional gravity models, which tend to overestimate the effects of regional agreements and particular policies. I present various specifications of the aggregate model to check its robustness. I also exploit regional disparities in the effects of these reforms and present some insights for one of their components, the Vallejo Plan. I also perform some robustness checks of parallel trends and present an alternative specification to account for anticipatory and post-intervention effects. In fact, the latter let us acquire some further intuition about the dynamics of exports promotion and its waivers during the 1960s. I also develop a placebo test which fakes a reform in the mid 50s to further confirm the parallel trends, both at the aggregate and regional level. Furthermore, I compare with my estimates with estimates using

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<sup>9</sup>I define minor exports as exports different from coffee, petroleum and its byproducts and raw hides. I present a discussion about this classification in the following sections.

exports in real pesos, which tend to confirm the results using real exports in dollars..

I find that export promotion schemes increased minor exports, in average, in 550% during the 1960s, with a dynamic behavior throughout the period. In fact, the alternative approach, following Agrist and Pischke (2009) unveils point estimates throughout the years. In this sense, export promotion presented higher effects during its final waiver, after 1967, achieving increases of 2000%. This, accounting for no anticipatory effects during the 1950s, which fulfills the parallel trends assumption. Besides, export promotion had larger effects for minor exports in Central America and the Caribbean and the USA, while there were no significant effects, in contrast to the behavior of traditional exports, in South America and Europe. The same is the case of Africa, Asia and Oceania. Thus export promotion fostered minor exports towards the north, beyond regional integration with Colombian neighbors and Europe, which also became an important partner regarding traditional exports.

On the other hand, I find higher effects for manufactured minor exports, which were associated to the Vallejo Plan, of around 1300%. Regional follow similar patterns to the ones of aggregate minor exports; however, these were much intense for USA and Canada (2550%) than for Central America (901%). On the other hand, Europe presents positive and significant results (395%), in contrast to the previous results. Regional integration in South america wasn't more intense for manufactures than for other traditional exports, which reflects the obstacles that the region had to foster its trade, probably due to the major protection systems that most countries were using at the time. Additionally, dynamic estimates show that Vallejo Plan manufacturing exports had an important boost during the early 1960s, which was later attenuated with high but weaker growth rates. In any case, these were higher than for the aggregate case. in this sense, Plan Vallejo represented an important component of export promotion to boost manufactures. As in the previous exercise, no anticipatory effects were found before the 1960s.

To my knowledge this is the first study that tries to assess export promotion policies in Colombia from an experimental approach. In fact, most of the literature in this realm has accounted for minor exports in a time series framework. Moreover, the closest approach to evaluate the foreign policy packages during the 1960s is Kamas (1995) research about monetary policy and inflation under the crawling peg. Others have proposed descriptive approaches to the effects of export promotion, such as Ffrench-Davis and Piera (1978) and Rodriguez (1985). This paper builds on a little set of literature which combines a difference in difference approach with the estimation

of a gravity model, such as in Fotopoulos and Psallidas (2009), which study the effects of the adoption of the euro on trade in OECD members and Gauto (2012), which searches for Mercosur's effects on Paraguayan imports. Both studies use matching techniques to find nonparametrical estimates according to differences in differences. While traditional studies have tried to explore the dynamics of exports throughout macroeconomic aggregates, I unveil the export promotion episode in relation to its previous state, exploring data since the 1950s, something barely done in the literature. I also intent to quantify this particular effect in a short run window. Additionally, this is the first paper to exploit mid-century trade data in the context of gravity models, which were recently incorporated in the country's literature to explore the effects of regional and bilateral trade agreements, such as in Cardenas and Garcia (2005) and Caro, Garcia and Torres (2015).

In contrast, authors have tried to calculate effective exchange rates and to separate them in their export promotion components. Two seminal documents that assess minor export promotion in Colombia are the ones from Teigeiro and Elson (1973) and Diaz-Alejandro (1976). Both authors give an extensive outlook on export incentives and the stability that exchange reforms brought. On their behalf, the former conclude that minor exports followed a path that overtook in a 50% the one that would prevailed in absence of incentives. Also, they began an important discussion about the specification of export supply models, specifically over the assumptions around external demand. In this sense, authors like Echavarria (1982) extended the discussion asserting that the external demand needed to be modeled and questioning the effectiveness of export incentives. Moreover, Perry (1978) and Echavarria and Perry (1981) proposed modifications to the export promotion schemes to improve their efficiency and reduce their fiscal cost, estimated on Teigeiro and Elson (1973) around 10% of public revenues. More approaches to estimate the effects of effective exchange rates were found in Villar (1984), Botero and Meisel (1988), Alonso (1993), Quintero (1997) and Misas and Ramirez (2004), the last ones accounting for long-run elasticities that novel time series techniques permitted. Authors like Ocampo and Villar (1993), Roberts Tybout (1997) and Mesa, Cock and Jimenez (1999) included microeconomic cross-sectional models to explain the behavior of minor and manufacturing exports.

Some stylized facts about this literature include an average price elasticity of minor exports between 0.62 and 1.5, with higher values for industrial or manufactured products. However, some industries seem to have a small or nonexistent answer towards the exchange rate, such as chemical products, paperwork, food and machinery, mostly

determined by external demand or installed capacity. This supports the literature consensus about the need to discard the small country assumption. Moreover, it is found that technology intensive exports thrived more in regional markets (Greco, 2002).

Throughout the time, the discussion -which hasn't been unaware of the paths of economic ideas and history- about the determinants of minor exports has shifted from the search of the particular contribution of each component of export promotion to a more complex study of the dynamics of minor exports and, particularly, of manufacturing ones. Indeed, the initial enthusiasm about export promotion was eventually replaced, since the mid 1970s, by technical discussions about the econometric specification of export models in the context of changing international demand dynamics -the plummet of international trade after the great inflation of the 70s- and the decline of export incentives which were since then subordinated to macroeconomic stabilization programs (Carrasquilla and Suescun, 1987). This became clearer during the 90s, when nobody talked anymore about export promotion but of how to develop an export sector in the context of a globalizing economy. Today, with an important emphasis on manufacturing exports, authors like Griffin (2015), Carranza et al. (2017) and Carranza et al. (2018) relate the export quest to fundamental issues of firms such as productivity, value chains, taxes and import intensity.

The contribution of this paper is to pick up a question -the effects of export promotion during the 1960s- that was left aside both by the course of the international economy -and the technical demands to study trade that it implied- and the depletion of the policy itself. Furthermore, it turns around the methodological experiments of the first authors, which, indeed, were subject to different critiques about their capacity to elicit causal claims. Particularly, simultaneity biases associated to the mixing of variables in supply and demand equations, the assumption of an effective exchange rate coefficient -and its components- as a supply or demand elasticity, and the unavoidable importance of the external demand and the international market segmentations<sup>10</sup> -either between sectors and regions- to which Colombian exports were exposed to (Carrasquilla and Suescun, 1987; Echavarria, 1982; Villar, 1984). According to the authors, during the 80s there was a consensus<sup>11</sup> about the importance of other elements

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<sup>10</sup>These segmentation implied that in booms Colombian exports could easily penetrate international markets while on busts these were immediately replaced by more competitive and efficient ones (Carrasquilla and Suescun, 1987).

<sup>11</sup>Nonetheless, one the most optimistic authors about export promotion during the 1970s, Diaz-Alejandro (1976), asked for a careful interpretation of the results: "But it is not possible, given the available information, to link the different policy variables to a particular involvement in the increase of these exports".

beyond the incentives to explain the vicissitudes of Colombian exports. Hence, this left the question for the effects of export promotion open. In this sense, this study combines the proper issues of the gravity models' literature in this case, without bilateral trade, such as the presence of excessive zeroes, with experimental approaches found in other areas of economics to assess causality; in this case, I present a historical policy perspective.

The rest of the paper is structured as follows: section 2 discusses the historical background of export promotion. Section 3 presents the data construction and descriptive statistics. Section 4 presents our empirical strategy. Section 5 presents the results. Section 6 presents some conclusions.

## **2 Historical Background**

### **2.1 Colombia's external sector and its policy dilemmas**

During the 1950s and 1960s, Colombia's external stability supposed a major challenge for policy makers. Indeed, this stability was frequently threatened by a complex combination of factors that set up several policy dilemmas. For instance, factors that influenced most of the balance of payments crises during this period involved instability and scarcity of foreign exchange mostly fostered by fluctuations in the demand for imports, plummets of coffee prices, credit expansion and public deficits with their inflationary aftermaths, credit payment delays and international pressures, speculative movements in capital flows, and devaluation expectations.

During these crises, government authorities pursued a set of policy objectives, in spite of their irreconcilable nature, following Diaz-Alejandro (1976). These included the import liberalization of non-competing nor sumptuary intermediate or capital goods which accounted for almost 95% of imports, stable exchange rates, inflows of long-term capital and short-term international credit, a low coffee exchange rate compatible with public revenues and the lessening the credit demands from the Coffee Grower's Federation, exchange controls over capital outflows and foreign direct investment, and a higher participation of minor exports in the total export basket.

In fact, an economy in which, by 1950, coffee and petroleum accounted for, respectively, 75% and 16% of total exports, a boost in minor exports was a reasonable policy target. Even more since fluctuations in coffee and petroleum exports were almost ex-



ogenous to domestic policy. Although Colombian authorities could regulate petroleum production and, somewhat, influence the foreign coffee market, this was at a little extent. Not for nothing, the fate of these products could be explained more by luck than anything (Diaz-Alejandro, 1976; Teigeiro and Elson 1973). This behavior not only generated instability in exchange markets but also within other exports through rough movements of exchange rates. In this sense, a diversified and booming export device, as a strong source of foreign exchange, could counteract adverse price movements of commodities and the combination of threatening factors that these could activate. Moreover, this could free up space for the set of elusive policy objectives mentioned.

On the other hand, the new source of foreign exchange was necessary in a world in which the compression of imports -roughly 95% of which were machinery equipment and intermediate goods- wasn't an alternative to withstand balance of payments crises (Espinosa, 1970). Not for nothing, reductions in fixed capital formation and GDP were common in the external setbacks perceived by the Colombian economy during the 1950s and 1960s. In the same way, reliance upon capital inflows which policymakers frequently took for granted, needed to be lessened. In this context, the case for a minor export promotion system was set up in Colombia during this period. Nevertheless, it had to find its place in the set of objectives policy makers used to deal with balance of payments crises. In this sense, I will explain the development of the export promotion system along with the vicissitudes of the external sector. Its macroeconomic trends can be followed in Table 1.

## **2.2 External vulnerability and minor exports during the 1950s**

During the 1950s, export incentives were thought to be channeled through a system of multiple exchange rates. However, there was little harmony between these and external policy objectives. In fact, the latter, which were aimed at easing exchange crises caused by drops in coffee prices, were often carried on at the expense of the former. In this sense, more than an exchange rate system designed to incentivize minor exports, it ended as a biased system against them due to the dominance of coffee prices.

The first attempt to benefit minor exports came in June of 1948 with a fluctuating certificate rate applicable for exports different from coffee, petroleum and raw hides. This was reversed with the 1951 devaluation, which was accompanied by the first reduction in exchange and import controls since the Great Depression. This episode fixed and overvalued the rate for minor exports around 50 pesos below its previous

level. However, this was compensated in August 1952 with a free rate which promoted exports with negotiable vouchers to import prohibited items. Nonetheless, this system, which worked until 1955, didn't seem to boost minor exports.

TABLE 1: PRINCIPAL EXTERNAL MACROECONOMIC INDICATORS

|      | Real GDP<br>Growth <sup>1</sup> | Inflation <sup>2</sup> | Gross Foreign<br>Reserves <sup>3</sup> | Net Foreign<br>Reserves <sup>4</sup> | Imports <sup>5</sup> | Nominal<br>Exchange<br>Rate <sup>6</sup> | PPP-EER<br>for Minor<br>Exports <sup>7</sup> | External<br>Coffee Price <sup>8</sup> |
|------|---------------------------------|------------------------|--|--------------------------------------|----------------------|--|--|---------------------------------------|
|      | %                               |                        | Million USD                            |                                      |                      | Pesos/Dollar                             |  | Cents/Dollar                          |
| 1951 | 2.8%                            | 9.3%                   | 138                                    |                                      | 419                  | 2.39                                     | 6.89   | 58.74                                 |
| 1952 | 6.3%                            | -2.4%                  | 167                                    |                                      | 415                  | 2.51                                     | 7.86   | 57.01                                 |
| 1953 | 5.1%                            | 7.4%                   | 203                                    |                                      | 547                  | 2.51                                     | 8.66   | 59.82                                 |
| 1954 | 7.2%                            | 8.7%                   | 270                                    |                                      | 672                  | 2.51                                     | 8.18   | 80.02                                 |
| 1955 | 4.0%                            | 2.2%                   | 153                                    |                                      | 669                  | 2.51                                     | 8.91   | 64.57                                 |
| 1956 | 4.8%                            | 7.8%                   | 144                                    |                                      | 657                  | 2.51                                     | 10.64  | 73.97                                 |
| 1957 | 3.4%                            | 20.2%                  | 157                                    |                                      | 483                  | 3.84                                     | 10.13  | 63.94                                 |
| 1958 | 1.9%                            | 8.1%                   | 173                                    |                                      | 400                  | 6.41                                     | 9.39   | 52.34                                 |
| 1959 | 7.2%                            | 7.9%                   | 230                                    |                                      | 416                  | 6.40                                     | 10.66  | 45.22                                 |
| 1960 | 4.0%                            | 7.2%                   | 178                                    | 75                                   | 519                  | 6.65                                     | 9.41   | 44.89                                 |
| 1961 | 5.1%                            | 5.9%                   | 171                                    | 14                                   | 557                  | 6.70                                     | 11.49  | 43.62                                 |
| 1962 | 5.2%                            | 6.4%                   | 116                                    | -76                                  | 540                  | 6.78                                     | 13.18  | 40.77                                 |
| 1963 | 3.2%                            | 32.6%                  | 125                                    | -118                                 | 506                  | 9.00                                     | 11.44  | 39.55                                 |
| 1964 | 6.0%                            | 8.9%                   | 147                                    | -94                                  | 586                  | 9.00                                     | 10.13  | 48.80                                 |
| 1965 | 4.0%                            | 14.6%                  | 145                                    | -97                                  | 454                  | 10.50                                    | 13.13  | 47.44                                 |
| 1966 | 5.6%                            | 13.0%                  | 144                                    | -101                                 | 674                  | 13.50                                    | 10.87  | 44.12                                 |
| 1967 | 3.7%                            | 7.3%                   | 149                                    | -74                                  | 497                  | 14.54                                    | 11.24  | 41.14                                 |
| 1968 | 6.3%                            | 6.5%                   | 218                                    | -9                                   | 643                  | 16.29                                    | 12.3   | 41.33                                 |
| 1969 | 6.3%                            | 8.6%                   | 257                                    | 62                                   | 685                  | 17.32                                    | 12.74  | 41.78                                 |
| 1970 | 6.7%                            | 6.8%                   | 258                                    | 168                                  | 843                  | 18.44                                    | 13.1   | 54.01                                 |
| 1971 | 6.0%                            | 13.6%                  | 265                                    | 142                                  | 929                  | 19.93                                    | 13.4   | 46.99                                 |
| 1972 | 7.7%                            | 14.0%                  | 393                                    | 227                                  | 859                  | 21.87                                    | 13.76  | 52.33                                 |
| 1973 | 6.7%                            | 23.5%                  | 524                                    | 443                                  | 1062                 | 23.64                                    |  | 64.30                                 |

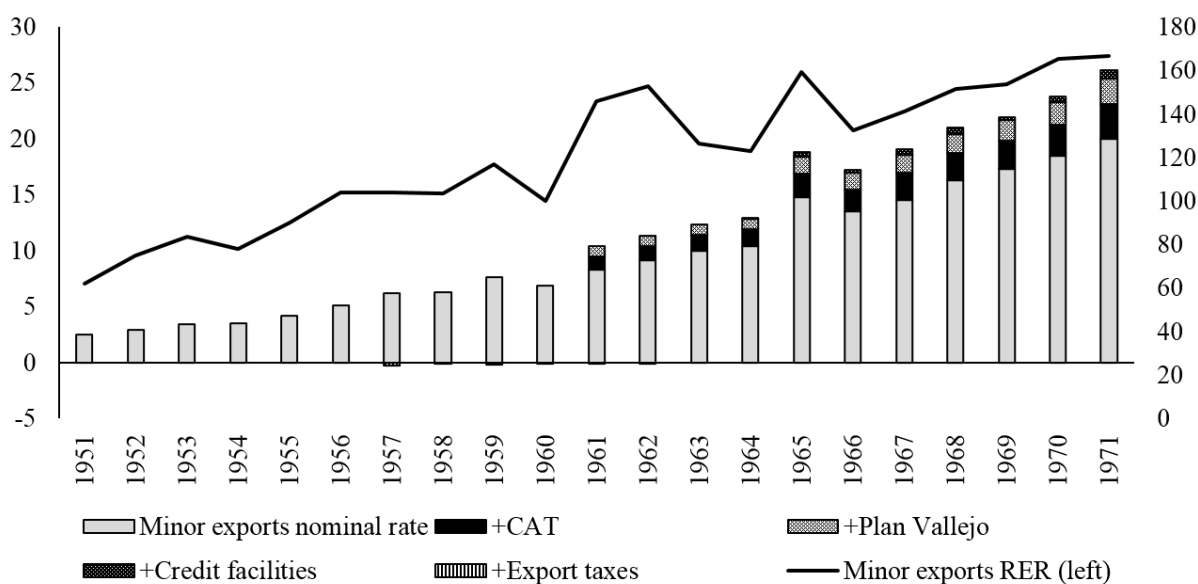
Notes: 1,2,5 and 6 are taken from Greco. 3 (which is in 1963 prices) , 4 and 8 were obtained from Banco de la Republica. 7 was recovered up to 1972 from Diaz-Alejandro (1976).

1951 was the seed of an import boom that increased in 1954 due to the inflationary pressures of higher levels of foreign reserves. However, coffee prices, which topped in 1954 due to the Brazilian cold, suddenly plummeted, and delayed payments to external businesses were piled. There was also an increasing public deficit financed by domestic debt bonds bought by the central bank. In response to these events, in 1955, import liberalization was reduced and stamp taxes were applied to five groups of imports (according to their importance) and a prohibited list was implemented. In terms of exchange, a free market rate was introduced for “non-important” imports and minor exports that was changed in 1956 to a certificate rate for all exports. Nevertheless,

the official rate, that remained in 2.5 pesos since 1951, hampered the knowledge of the exact value of the exchange rate. Thus, devaluation expectations increased and speculative movements disrupted the market.

Still, the real overvaluation of the exchange rate kept flooding the country with imports. Thus, GDP shrunk, import payments were delayed, credit and inflation were expanded, and, if it were not enough, coffee prices dropped. In this sense, a stabilization program with an inevitable devaluation was carried on June 1957 with help of the IMF. This was a condition from international banks after suspending loans to the country (Gomez, 2017). Its first target was to renegotiate debts with import providers. The 60/40 scheme in which the central bank would pay immediately 60% of the loans and the rest in promissory notes with a 4% interest rate didn't work because of the piling up of commitments. Finally, a complete disbursement of the debt, 20% in dollars and 80% in pesos at a lower exchange rate was accepted. Moreover, external loans were acquired and emergency export taxes of 15% which were reduced to 2% in 1961 and eliminated in 1962 were implemented to face commercial debts. In words of Lopez-Mejia (1990), it was a transfer from private to external savings. The behavior of the nominal and its components and the real exchange rate for minor exports can be observed in Figure 1.

FIGURE 1: NOMINAL (pesos/dollar) AND REAL EFFECTIVE EXCHANGE RATES (1960=100) FOR MINOR EXPORTS



Source: Teigeiro and Elson (1973) in Greco (2001).

Another dimension of the stabilization program was the establishment of import con-

trols and a devaluation of the exchange rate. The former slashed real imports in 30% and the latter simplified the system into a certificate rate and a free rate, which most contributed to the adjustment of the external sector, according to Gomez (2016). Indeed, the author establishes that this contribution was higher than that of the monetary and fiscal tightening during the time. However, again, stability was found at the expense of minor exports, which were moved from the free market rate to the 2 pesos lower certificate one. Moreover, the export taxes mentioned before were also biased against minor exports.

As it was told, the fate of minor exports incentives during the 1950s was governed and, thus, affected, by the preference that coffee growers and their power groups had on the government and the central bank (Diaz-Alejandro, 1976). Not for nothing the author notes that the PPP exchange rate for coffee increased 18% during the stabilization program. On the other hand, the export taxes established in 1957 made that the effective return of minor exports was the actual exchange rate (Teigeiro and Elson, 1973).

Between 1959 and 1961, the effects of the stabilization program irrigated the external sector. With a stable balance of payments, Colombia was acclaimed by foreign creditors as an example for the Alianza Para el Progreso program and long-term capitals arrived (Lopez-Mejia, 1990). In this sense, space was set up for policy targets that were not available during external crises. Thus, a liberalization period started in which the exchange rate for imports fell and the one for minors stood up since it was assigned to the free market in January 1959. Moreover, policymakers understood from past experiences that exchange rates alone weren't sufficient to boost minor exports, setting up the platform for the take-off of export promotion in the country.

## **2.3 Export promotion in the context of policy dilemmas during the 1960s**

### **2.3.1 The first waiver and the policy failures of the early 1960s**

Paradoxically, the first attempts to promote exports in Colombia were unintended consequences of two excess capacity incentive programs: Plan Vallejo and the income tax exemption. The former, presented in 1956 but established with Law 81 of 1959, consisted in a contract between a manufacturing firm and the government's INCOMEX to import, exempt of previous deposits and custom's fees, raw materials, capital equip-

ment and supplies used in the production of goods. It was first conceived to promote excess capacity and was rapidly addressed to minor export oriented manufactures. The contract required the exporter to register all transactions according to regulation and to submit a guarantee covering twice the customs fees that would be paid outside the program. Time and money was bought by exporters, which had a 10%-12% subsidy effect -in terms of the exchange rate- that helped these account for a boost in around 30% of minor exports. However, the complexity of the contract left medium and small enterprises out of the Plan and there were small chances to export to new markets (Teigeiro and Elson, 1973; Diaz-Alejandro, 1976).

On the other hand, Law 81 of 1960, assuming export profits accounted for 40% of the gross value of exports, made them not taxable anymore for exports different to coffee, bananas, petroleum, precious metals and raw hides. Again, first thought as an excess capacity incentive program, this law translated in a 14.4% subsidy in exports. Nevertheless, it was far from perfect, since the subsidy increased with the size of the company and the marginal tax rate, leaving out firms with no profits (Diaz-Alejandro, 1976). Also, it must be noted that companies not related to the export business, such as banks, became engaged in it (Teigeiro and Elson, 1973). The incidence of both programs can be observed in Figure 2.

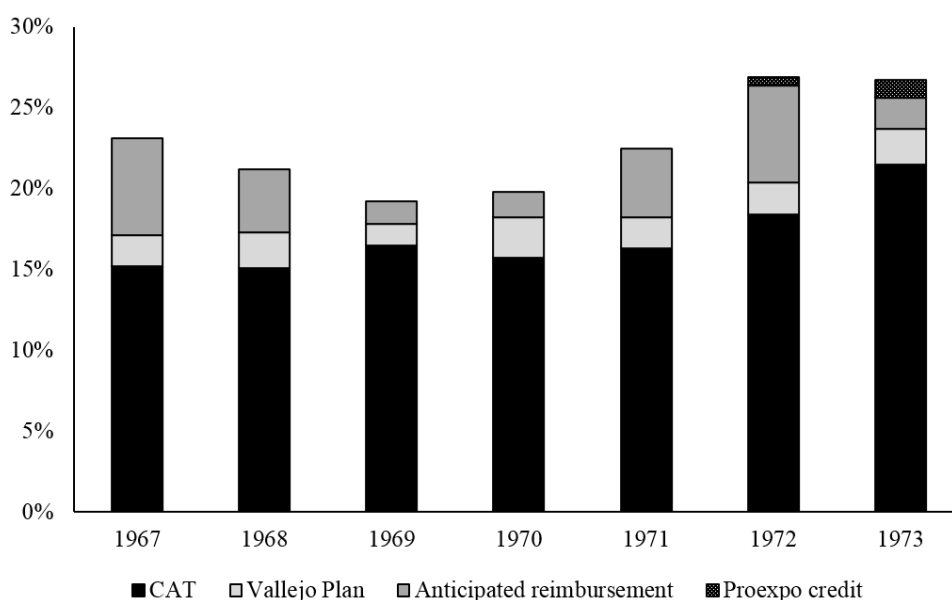
In contrast to the 1950s, these first cases for export promotion survived while still not being able to compensate subsequent thoroughly balance of payment crises in the 1960s. Indeed, a combination of lower coffee prices, public deficit, overvaluation, reduced import controls and scarcity of exchange induced a new crisis in 1962 in which the free market exchange rate distanced substantially from the certificate one. By the time, there were no more export taxes available and liberalization efforts were reversed with the inclusion of all exports in the prohibited list and a sharp devaluation for the import's rate. For a third time during the period, the external adjustment harmed minor exports since it pegged its exchange rate to 10 pesos per dollar, reducing its effective levels 13% below 1962 ones. However, this frequent bias against minor exports was counteracted by the export promotion figures that persisted (Diaz-Alejandro, 1976).

Different to previous balance of payments crises, government authorities weren't initially engaged with a real stabilization program as in 1951 and 1957 because they relied on aid and capital inflows from the "Alianza para el Progreso" program, which, at the end, didn't arrive. Moreover, the 1962 devaluation and import controls weren't enough to stabilize exchange markets. This was so because the boost in inflation rates influenced by salary concessions to workers in several strikes devoured the devaluation

objectives. Not even the central bank could stabilize the market, losing a big share of foreign reserves. In the fiscal side, the government couldn't approve a reform in Congress. On its behalf, monetary policy limited to import deposits and symbolic movements of reserves requirements. Thus, the stabilization program between 1962 and 1963 failed to achieve its external relief goals (Gomez, 2017).

During this period, Colombia's showcase image acquired in the late 1950s with the stabilization program flew away and aid inflows were reduced. With low foreign reserves levels, the central bank ceased the peg of the free rate which, by the end of 1954, reached 19 pesos per dollar. In June 1965 this rate was suspended for buying exchange from minor exports and was pegged at 13.5 pesos; the space for a reform was set up. Indeed, the government opposed a new devaluation arguing that its short term benefits didn't outweigh its costs and that tightening import restrictions were helping. Instead, an exchange reform was established in September 1965, replacing the certificate rate for two fixed rates: an intermediate of 13.5 pesos in which minor exports remained and a preferential one at 9 pesos for coffee exports and a group of imports (Gomez, 1983).

FIGURE 2: EXPORT SUBSIDY COMPOSITION SINCE THE 1967 STATUTE



Source: Ocampo and Villar (1993).

It could be argued that the removal of the minor exports from the free rate was being compensated since 1964 by the figure of export refinancing without exchange rate uncertainty, in which, using anticipated refunds, exporters borrowed in foreign currency before the export and paid when it was fulfilled, winning the devaluation

period (Teigeiro and Elson, 1973). Its behavior, since 1967, can be observed in Figures 1 and 2.

### **2.3.2 The final attempt: the external tumble and the 1967 statute**

In 1966, the reform was accompanied with the dismantling of import controls and tariffs, and their inclusion in the intermediate exchange rate list. This was a condition agreed with international organisms in exchange for financial assistance. Thus, liberalization created an import boom which was inherited to the new government and constituted a new external collapse linked to the drain of net foreign reserves by October 1966 and the consequent non-approval of the last stretch of the IMF contingency loan (Diaz-Alejandro, 1976; Ocampo et. al, 1997; Espinosa, 1970).

The crisis came along with pressures from IMF to devalue the exchanges rates warning an external credit blockade if the government didn't accept. In the last quarter of 1966, the circumstances were darker due to the drop in coffee prices and the halt in the growth of minor exports. The authorities were conscious of how unfeasible import liberalization was and were determined not to surrender to external pressures (Espinosa, 1970). Thus, in November 1965, liberalization and the exchange rate free market were stopped. Only the central bank could buy and sell gold and exchange and its monetary board was entrusted to establish the priority of external payments. In addition, all imports were moved to the previous license regime (Gomez, 1983).

This was the beginning of a turning point in the history of Colombian external sector. The government recognized that the restricting factor of the economy was the scarcity of foreign exchange resources and undertook an ambitious strategy to correct this imbalance which resulted in the exchange statute decree 444 of 1967. This legislation proposed a tumble in the external management which targeted promotion and diversification of exports, efficient use of foreign exchange, controls to foreign exchange demand particularly to prevent capital flights and speculative moves, fostering of foreign capital inflows, repatriation of capital and the recovery and stability of foreign exchange reserve levels (Gomez, 1983).

In the import and exchange control field, the statute gathered up and refined past experiences, not only the ones from 1959 and 1965, but also the lessons from exchange controls during the Great Depression (Espinosa, 1970). Rather than an attempt to sustain an exchange rate sufficient to promote minor exports and control import demand, the statute combined an active exchange rate policy with fiscal

subsidies and quantitative restrictions and controls to, according to Teigeiro and Elson (1973), “reconcile the demand for imports with the availability of foreign exchange”. Moreover, the government authorities targeted integration between fiscal, monetary and wage policy (Diaz-Alejandro, 1976).

In this sense, exchange rate policy consisted in the establishment of mini-devaluations what was known as the crawling peg of the certificate rate against the dollar to keep the pace of external inflation. As a result, this rate eventually by June 1968 converged to the pegged capital rate that substituted the former free one. Thus, when both rates arrived the same level, the capital market was abolished. In the case of coffee, which until 1967 perceived a special exchange rate, it was incorporated in the same rate for minor exports and imports but being held accountable for a 23% ad valorem tax that was further reduced to 20%. This regulation made the interest of the coffee exporters more devaluation compatible with the one of minor exporters (Diaz-Alejandro, 1976). In fact, this was one of the statute’s major achievements, along with the recovery of the negative net foreign exchange reserves and the inflow of aid and contingency credits.

Not for nothing, in previous years, minor exports were subject to fluctuations and speculation in foreign exchange markets, contributing to the instability of their firms’ profits from external sales (Ocampo et. al, 1997). In this sense, the stability component of the exchange statute eased this situation and, furthermore, harmonized the traditionally opposed exchange rate policy for minor and coffee exports. Thus, unlike previous programs that stood up to simplify the exchange rate system in accordance with the Bretton Woods narrative, it was the first time in which exchange rate regulation didn’t hurt minor exports. However, the stability dimension wasn’t the only way minor exports were benefited. In fact, minor exports were part of the primary lines of the statute, making the case for a shift in export promotion in Colombia which made the boost and diversification of minor exports another important achievement of the statute.

In words of Colombia’s finance minister during the late 1960s: “we stimulate exports to correct, throughout the years, the [external] structural imbalance, but not in a way that translates into indefinite competitive devaluations, neither fosters a bitter inflationary spiral nor an inefficient production” (Espinosa, 1970). Indeed, this was the setting for what was done in the following years, leaving the country better armored to resist external shifts.

The first and most important export promotion instrument in the 1967 statute was the tax credit certificate (CAT), which can be observed in Figure 2. This was



supposed to replace and improve the profit tax exemption instrument developed by Law 81 of 1960, whose transition is presented in Figure 1. The CAT was a general and simple tax-free certificate of 15% of the export value to be used in tax payments one year after being acquired. Nevertheless, between 1970 and 1971 this period was substantially reduced. It applied, as in the past, to exports different from coffee, petroleum and raw hides (Diaz-Alejandro, 1976). An advantage of this system was that, as it didn't depend on profits, small and medium business could indeed access its cash benefits. However, since exporters could negotiate CATs in local stock exchanges even before fulfilling the year of issue, its effective value ranged from 13.7% to 18.3% (Teigeiro and Elson, 1973).

On its behalf, Plan Vallejo was extended to two alternative import export schemes: Plan Vallejo Jr., which maintained past benefits but after the completion of an export, not before, and what Teigeiro and Elson (1973) call, the drawback, a refunding of custom duties based on the value-added component of the export. Some shortcomings of these alternatives were that they were biased towards import intensive manufactures and that past strict requirements remained.

Another instrument was the export promotion fund handled by Proexpo which was annexed to the central bank and supported by a 1.5% tax on imports. The fund channeled credit in a country with imperfect capital markets and funded studies, documents, freights, risk insurances, customs rights and storage costs. On the other hand, the fund advertised Colombian exports, promoted access to new markets, celebrated trade agreements, gave information to exporters and even bought and export merchandise itself<sup>12</sup>. Parallel to the fund, exporters benefited from free zones with export facilities and imports free of restrictions in Barranquilla, Palma Seca, and Buenaventura (Diaz-Alejandro, 1976).

Now, along with export promotion instruments, and once external stability was accomplished, government authorities began a process of gradual import liberalization that survived throughout the rest of the period. In 1968 import deposit rates fell and in 1970 the list of free imports was expanded while the prohibited import list was shrunk. In this sense, by 1973, 43% of reimbursable imports were in the free list, previous deposit rates didn't surpass 10% and all items in the prohibited import list were moved to the prior one (Diaz-Alejandro, 1976). Nevertheless, the levels of protection remained high, at least for the ones needed to accomplish regional integration, even though the

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<sup>12</sup>This fund would eventually transform in the national development bank mentioned in Section 1, Bancoldex.

Andean Pact was signed in 1969. According to Ocampo et. al (1997), the extended market strategy agree between regional countries was never carried on due to the exceptions to trade that remained. In spite of this, Colombia used other mechanisms to export to regional markets, increasing the participation of minor exports in these in 10% between 1969 and 1970.

At the end, the export promotion package consolidated itself throughout four components summarized in Table 2: fiscal incentives and import-export schemes, structured in 1960 and redesigned in 1967, credit and funding, which started in 1964 with the use of anticipated reimbursements -credit facilities- and complemented in 1967 with an export promotion fund (Proexpo), and a specific policy to guarantee the stability of the exchange rate: the crawling peg since 1967.

TABLE 2: MID-CENTURY EXPORT PROMOTION COMPONENTS

|                                | 1960           | 1964                       | 1967  |
|--------------------------------|----------------|----------------------------|---|
| <i>Fiscal Incentives</i>       | Tax deductions |                            | Tax credit certificate                      |
| <i>Import-Export Scheme</i>    | Plan Vallejo   |                            | Plan Vallejo Jr.<br>Plan Vallejo "drawback" |
| <i>Credit and funding</i>      |                | Anticipated reimbursements | Proexpo                                     |
| <i>Exchange rate stability</i> |                |                            | Crawling peg                                |

However, by the end of 1973 and 1974, the export promotion system was partially dismantled. During this period, concerns about fiscal costs of the plan were elevated. For instance, Teigeiro and Elson (1973) estimated its cost as 10% of central government revenues and almost 30% of the current account surplus. In this sense, Plan Vallejo was limited to the drawback, value-added, version, which had little use. This regulation was extended to the issuing of CATs, whose reductions were started to be announced and, by October 1974, when an emergency reform was carried on, the fiscal incentives were virtually eliminated. Also, due to its irregular management and the debts that it fostered abroad, anticipated refunds of foreign exchange were eliminated but were compensated with a 300 million pesos Proexpo quota for discount credit. Alongside, foreign crises and the Great Inflation of the 70s increased world protectionism, which eventually halted minor exports boost and diversification globally (Echavarria, 1982). Furthermore, regional markets, which became important recipients of minor exports, became quite unstable by the time. In this sense, export promotion and other industrialization strategies were subordinated to internal and external macroeconomic stabilization policies (carrasquilla and Suescun, 1987). On its

behalf, the crawling peg strategy started to face problems in a context of high external inflation. Particularly, authors like Ocampo (1983) criticized the fact that, even though the peg was thought to close the gap between internal and external inflation, Colombian authorities responded to a high inflation increasing the rate of devaluation, which didn't account for the gradual adjustment of domestic prices to higher import and export prices.

In sum, external stability combined with major availability of foreign exchange maintained acceptable growth rates and counteracted the worrisome levels of unemployment the economy had during crises (Ocampo et. al, 1997). In this sense, a healthy external sector helped to redefine the priorities of policymakers, which had, in words of Diaz-Alejandro (1976), the option of turning their attention to the really serious problems in the Colombian economy poverty, underemployment and income distribution, areas in which the impact of trade and payments policies was indirect, weak, and uncertain.

## 3 Data

### 3.1 Sources and export gravity matrix construction

I exploit a novel dataset from Colombia's Foreign Trade Yearbooks (FTY) between 1951 and 1973. In this sense, I digitalized data for annual exports in pesos and dollars at the industry section and destination country level. Between 1951 and 1964, there were 87 industry sections for each FTY, however, since 1965, these were expanded to 99. Thus, I had to merge post 1965 industry sections to their equivalent in previous FTYs. Moreover, industry sections could be gathered in between 17 and 21 industry chapters. On the other hand, for each industry section, data was recovered for each destination country. Nevertheless, country names and territories changed throughout the years and their equivalences were also needed to resolve. As a result, around 167 unique country destinations were collected throughout the whole sample.

Data was structured in an annual export matrix to portray a gravity trade matrix, in this case, with only one exporter: Colombia. However, I needed to deal with the excessive number of zeroes -which accounted for 95% of the matrix-, by gathering industry section data in its respective industry chapter (traditional exports were given their own industry chapter to be used in the estimation). Also, I reduced the number of country destinations with a rule of thumb: every country that, after the intervention,

imported less than 0.05% of Colombia's total exports was included in a group of other countries of Europe, Central America and the Caribbean, South America, and a group of Asia, Africa and Oceania. This operation left us with 17 industry chapter sections and 34 countries or group of countries destinations for 23 years. In consequence, this add up 578 country-industry observations per year, a total of 13,294 observations. Of these, 41% are zeroes.

As the digitalized export values were in nominal terms, I brought them to real ones using a manufactures unit value index (MUV), which is a "trade-weighted average of export prices of manufactured goods for 15 major developed and emerging countries" (World Bank, 2018). I indexed them to 1967. Also, I brought export peso values to dollars, using the nominal exchange rate proposed by Greco (2002).

On the other hand, I constructed a set of controls suitable to the country and country groups classification that I settled. Thus, I used gravity data available at CEPII to incorporate distance, per-capita GDP, population and a set of dummies for same language and contiguous countries.

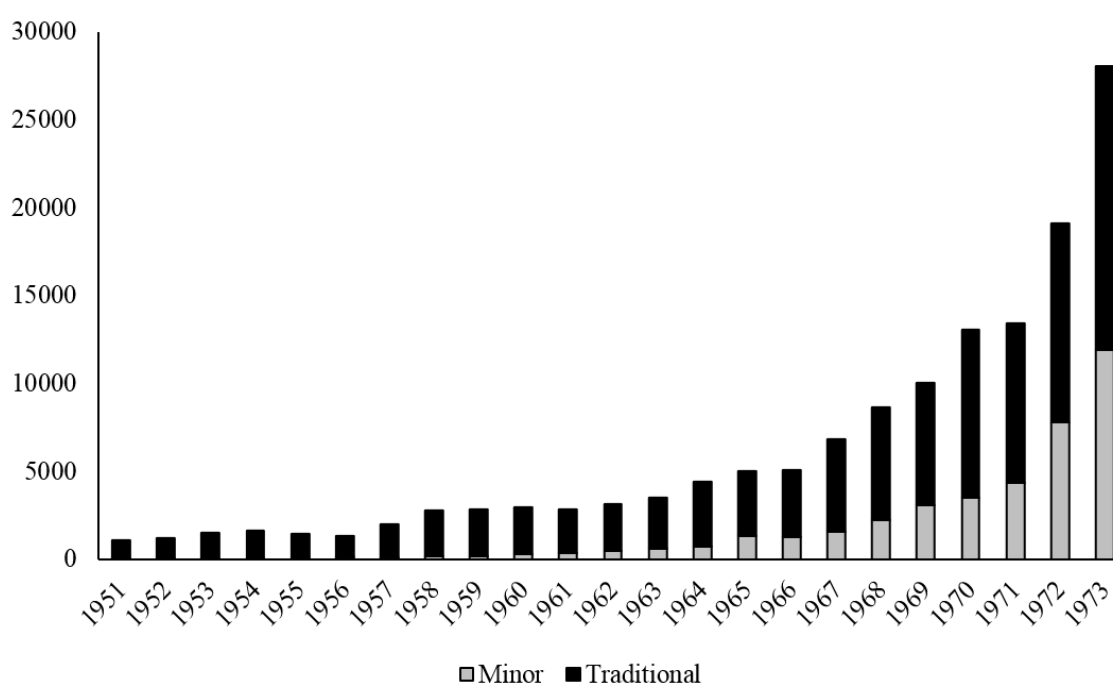
Finally, I classified real exports as minor or traditional. Throughout the years, export literature in Colombia has changed its minor exports classification. However, I use the definition of the time, which was the one that the legislation used to determine which exports were promoted or not. In the case of article 120 of Law 81 of 1960, it asserts: "non-transformed coffee, petroleum and its byproducts, bananas, raw hides and precious metals, can't access this exemption" (Juriscol, 2018). On the other hand, article 166 of decree 444 of 1967 reads "at the moment of foreign exchange refunding from exports different to petroleum and its byproducts, raw hides and coffee, the Bank of the Republic will hand over a tax credit certificate" in an equivalent quantity, in Colombian currency, of 15% of the total refund value (Mincit, 2018). In this sense, I use the traditional exports classification that persisted throughout the period: coffee, raw hides and petroleum and its byproducts.

## **3.2 Descriptive statistics**

A key element while studying exports in Colombia between the 1950s and 1970s is that they start from a small base. Thus, inference from growth rates could be misleading because a doubling of exports from one low base year to another could seem more spectacular than an export increase in a higher base period. These issues are discussed further in Echavarria (1982). In spite of this fact, the literature acknowledges that

export growth was greater in export promotion periods. This can be observed in Figure 3, which plots the evolution of minor and traditional exports in Colombia between 1951 and 1973. Thus, the minor exports' takeoff can be observed between 1959 and 1960, when export promotion fiscal and Vallejo Plan incentives were established, in the mid 1960s, when anticipated reimbursements were applied, and, with much more intensity, after 1967, when minor exports promotion policies were no more opposed to stabilization strategies.

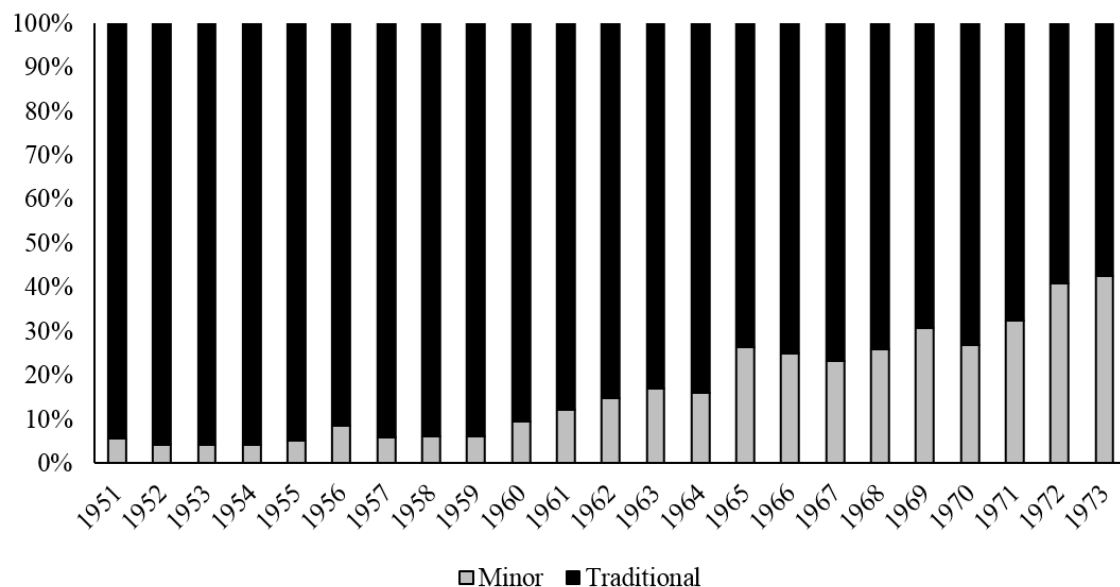
FIGURE 3: COLOMBIAN EXPORTS AND THEIR EVOLUTION (million nominal dollars)



Source: FTY, several issues.

More important, during the export promotion period minor exports won a considerable part of the export basket, a fundamental condition for external balance since they were a source of foreign exchange to resist shocks. During the 1950s, traditional exports accounted for, more or less, 95% of the export basket. In this sense, the volatility of external prices, mostly of coffee ones, determined the fate of Colombia's balance of payments. On the other hand, it was until the export promotion period that minor exports gained relevance and passed from 6% of the export basket to 25% up to 1966 (the firsts waivers of export promotion) and then rose up to 42% in 1973 after the 1967 statute. This can be observed in Figure 4.

FIGURE 4: COMPOSITION OF THE EXPORT BASKET



Source: FTY, several issues.

Beyond the evolution and composition of the export basket, we can exploit more the data and dig inside its sectoral and destiny composition. For instance, Table 3 presents the sectoral composition of minor exports between three periods: 1951-1959 (no export promotion scheme), 1960-1966 (first waivers of export promotion) and 1967-1973 (final waiver of export promotion). I present how the minor export basket changed in time, showing the participation in minor exports of 18 industries groups. It is noted that industries like animals and byproducts and textiles acquired a major participation throughout the time, however, the former did it during the final waiver and the latter during the first ones, in which it was consolidated. Others like food, beverages, alcohol and tobacco (FBAT), chemistry products and joint industries, paper and machines had a bigger share. Nevertheless, it is worth noting that FBAT grew its participation up to 19% in the first waivers but it was decreased to 15% during the final. Also, industries like vegetal products and art, antiquities and others lost their share, especially the former, whose share dropped from 57% to 13%. On the other hand, the fine pearls, rocks, metals and jewelry industry lost its participation during the first waivers but recovered it during the final one. This could be linked to, as I mentioned, its exclusion from export promotion fiscal incentives during the first waivers. In this sense, minor exports shifted towards diversified and manufacture oriented production.

TABLE 3: MINOR EXPORTS' SECTORIAL COMPOSITION

|  | 1951-1959 | 1960-1966 | 1967-1973 |
|--|-----------|-----------|-----------|
| Live animals and animal products                   | 2.4%      | 5.1%      | 10.8%     |
| Vegetal products                                   | 56.8%     | 24.7%     | 13.1%     |
| Food, beverages, alcohol, tobacco                  | 13.1%     | 18.6%     | 15.4%     |
| Mineral products                                   | 3.6%      | 3.5%      | 2.1%      |
| Chemistry products and joint industries            | 1.8%      | 4.0%      | 4.9%      |
| Fur and leather manufactures                       | 1.2%      | 0.8%      | 0.4%      |
| Artificial plastic, ether, rubber*                 | 0.1%      | 1.5%      | 1.7%      |
| Wood, vegetal carbon, cork*                        | 3.4%      | 4.9%      | 3.0%      |
| Paper and its byproducts                           | 0.1%      | 1.7%      | 4.3%      |
| Textiles*  | 3.2%      | 24.4%     | 25.4%     |
| Shoes, hats, umbrellas and artificial flowers      | 0.2%      | 0.0%      | 0.7%      |
| Rock, cast, cement, ceramics, glass*               | 0.3%      | 0.9%      | 2.5%      |
| Fine pearls, rocks, metals, jewelry *              | 6.0%      | 1.6%      | 8.6%      |
| Common metals*                                     | 1.2%      | 1.4%      | 2.9%      |
| Machines, electric and transport material          | 1.8%      | 2.7%      | 3.1%      |
| Optical, cinematographic, precision, music devices | 0.1%      | 0.2%      | 0.4%      |
| Arms, carving material, diverse manufactures       | 0.1%      | 0.2%      | 0.1%      |
| Art objects, antiquities, other objects            | 4.5%      | 3.8%      | 0.6%      |

Note: \* means that manufactures of these products are included

In terms of destination diversification, minor and traditional exports behaved differently. The country almost doubled the number of destinations from 61 during the half of the 1950s to 115 in 1973, averaging 90 and 100 during the first and second waivers, respectively. However, destiny diversification has to be accounted carefully; for example, Colombia exported a lot of oil to Trinity and Tobago or tons of coffee to the UK but with little product diversification. Indeed, these countries were some of the biggest trade partners. Nevertheless, nearby countries like Venezuela, Panama or Peru were important allies in terms of product diversification but not much on value, due to the weight of traditional exports, which tended to be higher.

In this sense, we can analyze these patterns during the three periods in Table 4, which presents minor and traditional exports' share in their respective totals for 34 destinations, which are ordered in terms of their weight in total exports during the final export promotion waiver. It could be seen that concentration on traditional exports was mostly given by our traditional trade partners in Europe, except for the UK. Thus, the minor exports' share in some of these countries fell dramatically in West Germany but in others like the UK, Italy, Spain and other small countries it increased. A generalized fact (both in minor and traditional exports) is the participation drop of

the United States in our export basket throughout the whole period.

TABLE 4: MINOR AND TRADITIONAL EXPORTS DESTINY COMPOSITION

|                         | Minor     |           |           | Traditional |           |           |
|-------------------------|-----------|-----------|-----------|-------------|-----------|-----------|
|                         | 1951-1959 | 1960-1966 | 1967-1973 | 1951-1959   | 1960-1966 | 1967-1973 |
| United States           | 30.2%     | 26.2%     | 22.1%     | 77.9%       | 57.1%     | 44.6%     |
| West Germany            | 31.4%     | 20.5%     | 7.5%      | 5.3%        | 11.1%     | 17.4%     |
| Dutch Antilles          | 2.4%      | 0.5%      | 1.4%      | 5.0%        | 0.1%      | 0.2%      |
| Sweden                  | 2.3%      | 1.4%      | 1.0%      | 1.9%        | 3.1%      | 4.2%      |
| Canada                  | 0.3%      | 3.1%      | 2.6%      | 2.0%        | 1.5%      | 1.1%      |
| Neetherlands            | 8.4%      | 9.6%      | 8.3%      | 1.4%        | 4.8%      | 5.1%      |
| United Kingdom          | 1.8%      | 6.1%      | 5.8%      | 1.2%        | 3.2%      | 1.0%      |
| Trinity and Tobago      | 0.1%      | 0.1%      | 0.3%      | 1.0%        | 5.3%      | 0.6%      |
| Belgium and Luxemburg   | 2.0%      | 1.2%      | 0.5%      | 0.7%        | 1.2%      | 1.8%      |
| Others in Europe        | 1.0%      | 1.4%      | 4.4%      | 0.8%        | 4.5%      | 9.1%      |
| France                  | 1.4%      | 2.7%      | 1.3%      | 0.5%        | 0.4%      | 1.3%      |
| Italy                   | 0.2%      | 1.9%      | 1.4%      | 0.5%        | 0.8%      | 0.9%      |
| Spain                   | 0.0%      | 1.1%      | 4.2%      | 0.5%        | 3.1%      | 4.9%      |
| Venezuela               | 5.7%      | 2.4%      | 3.7%      | 0.0%        | 0.0%      | 0.1%      |
| Switzerland             | 1.6%      | 0.9%      | 1.4%      | 0.2%        | 0.6%      | 0.4%      |
| Others in AAO           | 2.9%      | 2.0%      | 2.3%      | 0.1%        | 0.2%      | 1.4%      |
| Others in Latin America | 0.8%      | 1.0%      | 1.8%      | 0.2%        | 0.1%      | 0.4%      |
| Argentina               | 0.0%      | 1.7%      | 1.4%      | 0.2%        | 0.4%      | 1.4%      |
| Japan                   | 0.7%      | 1.1%      | 4.8%      | 0.1%        | 0.8%      | 1.5%      |
| Peru                    | 0.5%      | 2.4%      | 6.4%      | 0.1%        | 0.7%      | 1.1%      |
| Chile                   | 0.1%      | 0.6%      | 2.4%      | 0.1%        | 0.1%      | 0.4%      |
| Panama                  | 1.0%      | 1.8%      | 2.5%      | 0.0%        | 0.3%      | 0.1%      |
| Ecuador                 | 1.6%      | 3.6%      | 4.8%      | 0.0%        | 0.0%      | 0.5%      |
| Costa Rica              | 1.0%      | 1.6%      | 1.0%      | 0.0%        | 0.0%      | 0.0%      |
| Panama Channel Zone     | 0.1%      | 0.0%      | 0.3%      | 0.1%        | 0.0%      | 0.0%      |
| El Salvador             | 0.1%      | 0.3%      | 0.4%      | 0.1%        | 0.0%      | 0.0%      |
| Puerto Rico             | 0.8%      | 2.5%      | 1.9%      | 0.0%        | 0.1%      | 0.2%      |
| Honduras                | 0.3%      | 0.3%      | 0.4%      | 0.0%        | 0.1%      | 0.0%      |
| Nicaragua               | 0.1%      | 0.6%      | 0.6%      | 0.0%        | 0.0%      | 0.0%      |
| Mexico                  | 0.4%      | 0.3%      | 0.5%      | 0.0%        | 0.0%      | 0.0%      |
| Bolivia                 | 0.3%      | 0.1%      | 0.4%      | 0.0%        | 0.0%      | 0.0%      |
| Brasil                  | 0.1%      | 0.2%      | 1.2%      | 0.0%        | 0.0%      | 0.0%      |
| Guatemala               | 0.2%      | 0.7%      | 0.4%      | 0.0%        | 0.0%      | 0.0%      |
| Dominican Republic      | 0.0%      | 0.1%      | 0.6%      | 0.0%        | 0.1%      | 0.0%      |

Note: AAO stands for Asia, Africa and Oceania

For Africa, Asia (without Japan) and Oceania, the minor export share remained the same and the traditional one rose. For Japan, the minor exports' share increased substantially and a bit for traditional ones. Nearby countries like Peru, Chile, Panama, Brazil and Ecuador tended to buy more minor exports. Some Caribbean islands rose up too: Dominican Republic and Puerto Rico. Another example is Canada, which be-



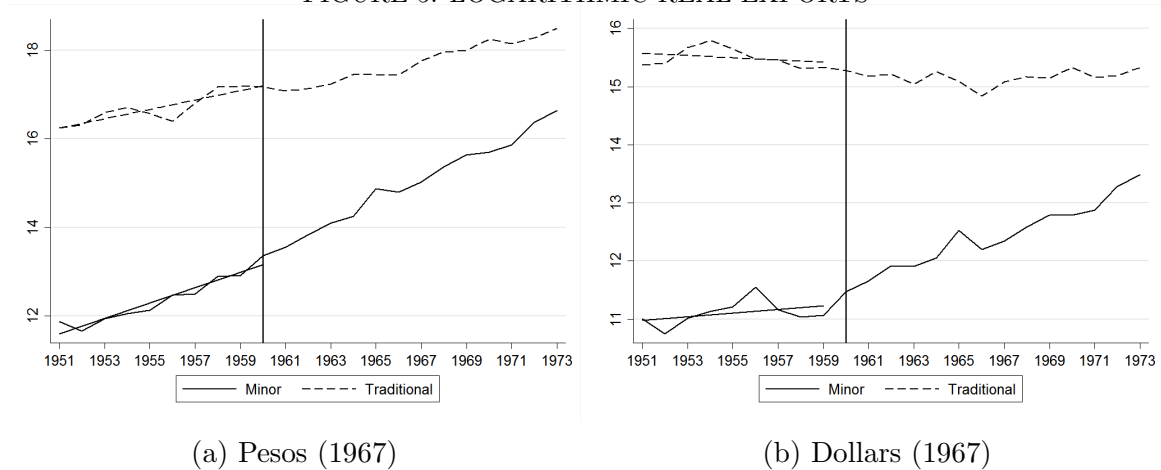
came a bigger partner in minor exports and reduced its traditional share. It seems that the final waiver, following what the literature mentioned, was more about strengthening the links of the past waivers than that of widening integration.

## 4 Empirical strategy

Our purpose is to unveil the effects of the export promotion scheme implemented in Colombia during the 1960s. However, we can't just compare the before the policy period with the after one because of the events that may happened alongside. Besides, we can't also just compare the treated and the non-treated industries because of the differences they present. Thus, we want to account for the causal effect of this policy throughout a quasi-experimental framework, which considers both types of variation, particularly a difference in difference approach. Difference in differences can overcome the disadvantages that traditional gravity models have in searching for causality, for example, assuming that trade increases between countries are due to trade agreements, which are modeled with dummy variables but don't offer a counterfactual, which can lead to endogeneity issues.

To achieve this, I identify a policy shock the export promotion strategy which affected a specific group of exporters minors, as I discussed previously. We also need a control group that wasn't affected by the policy traditional exports which remains as a benchmark, as well as the period before the policy, for the comparison. On the other hand, we need to demonstrate that, in absence of the policy shock, both groups would behave similarly. In this sense, traditional exports make a good control group because they were mainly considered as exogenous by policymakers. There wasn't much the government authorities could do and they didn't to boost these exports since coffee prices governed its supply before and after export promotion and petroleum exports were subject to what domestic regulation and, as with coffee, luck could do (Teigeiro and Elson, 1973).

FIGURE 5: LOGARITHMIC REAL EXPORTS



Moreover, graphical evidence can strengthen the fact that in absence of export promotion, both groups minor and traditional exports would have taken similar paths. For instance, Figure 5 presents the logarithm of real exports for minor and traditional ones between 1951 and 1973 for pesos and dollar values. We can observe that, previous to the policy shock in 1960 (when fiscal incentives were announced for minor exports), both groups of exports followed similar paths. However, posterior to the 1960 non-traditional -minor- exports tend to divert towards traditional ones. This is a fundamental issue to recover a causal effect through a difference in difference approach. Nevertheless, a more formal way to test parallel trends will be presented later.

To estimate the model, we need to incorporate the nature of our data, particularly of our dependent variable, which is the real export value in dollars from industry  $i$ , to country destination  $j$ , in year  $t$ . In this sense, 41% of these observations are zeroes, so we have to use a model that accounts for this information. A linear regression would simply drop 5,472 observations and the information behind them because of the logarithmic transformation. To fix this, some authors have used auxiliary methods to deal with zeroes, such as simply dropping the data, adding a unit to it so the logarithm takes it in account or using sample selection models, such as in Helpman, Melitz and Rubinstein (2008). However, authors like Santos Silva and Tenreyro (2006) demonstrated that a Poisson Pseudo Maximum Likelihood (PPML) estimation can deal with problems that arise when there are zeroes, such as heteroscedasticity. Authors like Burger, Oort, and Linders (2009) questioned the possible bias that the Poisson model can have for not facing overdispersion in the data. However, overdispersion tends to be a larger problem when estimating probabilities. Santos Silva and Tenreyro (2009) and Santos Silva and Tenreyro (2011) demonstrate that the Poisson estimator is well behaved, even in presence of lots of zeroes, and although other estimators may some-

times behave better, like the Negative Binomial, this estimator, in contrast doesn't make strong distributional assumptions. In addition, the authors argue that fixed effects and robust standard errors can account for zero trade data. For instance, Wooldridge (1999; 2010) presents a similar framework to defend the use of the Poisson model, as it is fully robust, in contrast to the Negative Binomial. Moreover, Arvis and Sheperd (2011) demonstrate that the Poisson estimator is the only pseudo maximum likelihood one that preserves total trade flows in gravity models, which are similar to the ones we are trying to estimate.

In this sense, we can fit the following PPML model to our data

$$Y_{ijt} = \exp\{\alpha_i + \delta_j + \gamma_t + \beta_1 Post \times Minor_{ijt} + \beta_2 Pop_{jt} + \beta_3 GDPC_{jt}\} \times \varepsilon_{it}$$

in which

$$Post_{ijt} = \begin{cases} 1, & \text{if } t > 1959, \\ 0, & \text{otherwise} \end{cases}$$

and  $Minor_{ijt}$  is a dummy variable that takes the value of one according to the definition given in the data section being different from coffee, petroleum and its byproducts and raw hides.  $\alpha_i, \delta_j$  and  $\gamma_t$  represent fixed effects for industry and importer country and a set of dummies for year, respectively.  $\varepsilon_{ijt}$  is a disturbance term. Finally,  $Y_{ijt}$  is the real value of an export from industry  $i$ , to country destination  $j$ , in year  $t$ .  $Pop$  and  $GDPC$  stand for the log of population and GDP per capita, respectively, of the importer country in the year  $t$ . Thus, we have a difference in difference with fixed effects model, in which the traditional single dummies, which in our case are  $Post$  and  $Minor$  are redundant since they would cause perfect collinearity. I use clustered Country robust standard errors. I present a Poisson Pseudo Maximum Likelihood Country-Industry and Year fixed effects, another one with Importer, Industry and Year fixed effects and a last one with Country-Year and Industry fixed effects. To contrast the literature's position upon these model, I present a Negative Binomial and a linear model to compare estimates.

In this sense,  $\beta_1$  is our parameter of interest, which will give us the change in minor exports after the export promotion schemes were established. I also present regressions among different continents to dig inside the destination extent of the policy.

Furthermore, I exploit one of the components of the export promotion package, the Vallejo Plan, which only affected exports of manufactures. Thus, we can explore some differential effects among Plan Vallejo exports, using just manufacturing related industry groups<sup>13</sup> for total and regional groups.

On the other hand, we present another difference in difference approach, following Angrist and Pischke (2009), that let us check anticipatory effects of the intervention and, thus, check the parallel trends assumption and post-intervention effects, which will give us an insight of the dynamics of export promotion waivers since it sheds light on the increasing or decreasing effects of the intervention throughout time. The equation estimated was

$$Y_{ijt} = \exp\left\{\sum_{\tau=1}^8 \beta_{-\tau} \text{Minor}_{ij,t-\tau} + \sum_{\tau=0}^{13} \beta_{\tau} \text{Minor}_{ij,t+\tau} + \beta_2 \text{Pop}_{jt} + \beta_3 \text{GDPC}_{jt} + \alpha_i + \delta_j + \gamma_t\right\} \times \varepsilon_{it}$$

in which the  $\beta_{-\tau}$  estimates represent anticipatory effects (previous to 1960) of minor exports and  $\beta_{\tau}$  represent the post-intervention effects of export promotion.  $\tau = 0$  represents the estimate for 1960.

To further check for parallel trends, I present some robustness checks of the effects of a fake reform in 1956 and perform a placebo test during the 1950s, expecting no statistically significant  $\beta_1$  estimates. The appendix presents some robustness exercises with exports in pesos.

$$\text{Post}_{ijt} = \begin{cases} 1, & \text{if } t \geq 1957, \\ 0, & \text{otherwise} \end{cases} \quad \forall t = 1951, \dots, 1959$$

## 5 Results

### 5.1 Difference in difference estimates

Table 5 presents the results for the difference in difference estimation. I perform it for two PPML models with clustered standard errors at the importer level -one with Industry-Importer and year fixed effects, the other with Industry, Importer, and Year

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<sup>13</sup>I dropped the following industry groups: Live animals and animal products, Vegetal products, Mineral products, v Rock, cast, cement, ceramics, glass, Fine pearls, rocks, metals, jewelry and Common metals.

fixed effects ad a third one with Importer-Year and Industry fixed effects-, a Negative Binomial with Industry-Importer fixed effects and robust standard errors and a linear one with Industry, Importer, and Year fixed effects and clustered standard errors at the importer level. In each model I drop the 1951 Year dummy to omit multicollinearity. Note that the linear regression uses the logarithm of real exports rather the variable in levels, which is proper of the count models. In this sense, it drops 5,242 observations from the estimation. All estimates are statistically significant at the 1% level. The PPML estimation let us interpret results from continuous variables as elasticities. Coefficients from mummy variables and their interactions -which are our variables of interest- need to be transformed with the formula  $100(e^{\beta_1} - 1)$  to be interpreted as elasticities. Box 1 presents a helpful guide to approximate the results. The fully robust estimations of  $\beta_1$ , which account for the difference in difference coefficient for the interaction between *Minor* and *Post* show that export promotion incentives increased minor exports, in average, between 505% and 553%, depending on the set of fixed effects. From now on, I will present results of estimations with Importer, Industry and Year fixed effects. On the other hand, NB and OLS tend to underestimate the effect, specially in the NB regression, which is very sensible to distributional assumptions and the presence of overdispersion. In the most regressions, importer GDP percent capital has a positive and significant effect on Colombian exports, while the effects of a higher importer population are ambiguous.

TABLE 5: DIFFERENCE IN DIFFERENCE ESTIMATES

|              | Real exports in dollars |                     |                     |                      |                     |
|--------------|-------------------------|---------------------|---------------------|----------------------|---------------------|
|              |                         | PPML                |                     | NB                   | OLS*                |
|              | (1)                     | (2)                 | (3)                 | (3)                  | (4)                 |
| Minor X Post | 1.800***<br>(0.343)     | 1.876***<br>(0.360) | 1.876***<br>(0.360) | 0.541***<br>(0.041)  | 1.703***<br>(0.350) |
| M Population | -2.721<br>(2.551)       | 1.158<br>(2.737)    |                     | -0.074***<br>(0.009) | 1.788*<br>(1.045)   |
| M GDPC       | 1.655***<br>(0.410)     | 1.927***<br>(0.461) |                     | 0.172***<br>(0.015)  | 0.243<br>(0.276)    |
| FE           | M-I + T                 | M + I + T           | M-T + I             | M-I + T              | M + I + T           |
| Observations | 12877                   | 13107               | 13056               | 12877                | 7679                |

Notes: clustered standard errors in parenthesis. \*OLS takes the log of exports.

M (importer), T (time), I (industry)

TABLE 6: DIFFERENCE IN DIFFERENCE ESTIMATES

| Real exports in dollars |                     |                      |                   |                     |                    |
|-------------------------|---------------------|----------------------|-------------------|---------------------|--------------------|
|                         | USA-CAN             | CAC                  | South america     | Europe              | AAO                |
|                         | (2)                 | (3)                  | (4)               | (5)                 | (6)                |
| Minor X Post            | 2.112***<br>(0.580) | 2.248***<br>(0.664)  | 0.833<br>(0.659)  | 0.383<br>(0.410)    | 0.580<br>(0.695)   |
| M Population            | 5.520<br>(6.495)    | 10.517***<br>(3.095) | -0.282<br>(3.676) | -2.865**<br>(1.312) | -9.040<br>(17.032) |
| M GDPC                  | -0.470<br>(1.017)   | 3.285***<br>(0.743)  | 0.743<br>(0.631)  | 0.168<br>(0.721)    | -1.097<br>(2.287)  |
| FE                      | M + I + T           | M + I + T            | M + I + T         | M + I + T           | M + I + T          |
| Observations            | 782                 | 4981                 | 2737              | 3842                | 765                |

Notes: clustered standard errors in parenthesis. CAC stands for Central America and the Caribbean, AAO stands for Africa, Asia and Oceania. M (importer), T (time), I (industry)

Table 6 presents disaggregated results by continents. To do this I gather our 34 country destinations in their respective continent. I clustered at the Importer level for continents with sufficient importers or importer groups: In this sense, Estimates for USA-CAN and AAO present robust standard errors.. As Table 4 shows, more Central American and Caribbean countries remained as important trade partners, the same as South American and European countries. This is reflected in the number of observations used in the estimations. Thus, the results show that the largest effects of export promotion are found in Central America and the Caribbean (CAC), with minor exports average increases of 847%, followed by the USA and Canada with an effect of 726%. On their behalf, South America and Africa, Asia and Oceania present insignificant effects of export promotion of minor exports in contrast to traditional ones. This supports the hypothesis of Ocampo et al. (1997) about the failed efforts for Andean integration after Cartagena's Pact in 1969. Finally, minor exports to Europe didn't present a significant estimate, which can be driven by the increase in traditional exports that happened at the time.

TABLE 7: PLAN VALLEJO ESTIMATES

|              | Real exports in dollars |                     |                      |                   |                      |                    |
|--------------|-------------------------|---------------------|----------------------|-------------------|----------------------|--------------------|
|              | Total                   | USA-CAN             | CAC                  | South america     | Europe               | AAO                |
|              | (1)                     | (2)                 | (3)                  | (4)               | (5)                  | (6)                |
| Minor X Post | 2.632***<br>(0.416)     | 3.277***<br>(0.683) | 2.304***<br>(0.624)  | 0.614<br>(0.678)  | 1.599***<br>(0.502)  | 0.237<br>(0.714)   |
| M Population | -0.070<br>(2.616)       | 5.167<br>(6.683)    | 11.716***<br>(3.063) | -1.213<br>(3.823) | -3.561***<br>(1.180) | -0.842<br>(11.059) |
| M GDPC       | 2.034***<br>(0.400)     | 0.229<br>(0.709)    | 3.969***<br>(1.067)  | 0.470<br>(0.540)  | 0.458<br>(0.724)     | -0.141<br>(1.536)  |
| FE           | M + I + T               | M + I + T           | M + I + T            | M + I + T         | M + I + T            | M + I + T          |
| Observations | 10023                   | 598                 | 3809                 | 2093              | 2938                 | 585                |

Note: clustered standard errors in parenthesis. CAC stands for Central America and the Caribbean, AAO stands for Africa, Asia and Oceania. M (importer), T (time), I (industry)

Plan Vallejo estimates, shown in Table 7, are larger than those reported for minor exports as a whole. In this sense, while the latter move around a 500% increase in minor exports, the former moves up to 1290%. This means that manufactured exports were particularly benefited by the export promotion package, especially from the Vallejo Plan import-export scheme. Regional estimations show statistically and economically significant effects for CAC and USA and Canada, with manufactured exports increases of 901% and 2550%, respectively. In contrast to the aggregate minor exports case, the Vallejo Plan boosted manufactured exports to Europe in 395% while it didn't affect exports to South America and AAO.

BOX 1: COEFFICIENT INTERPRETATION

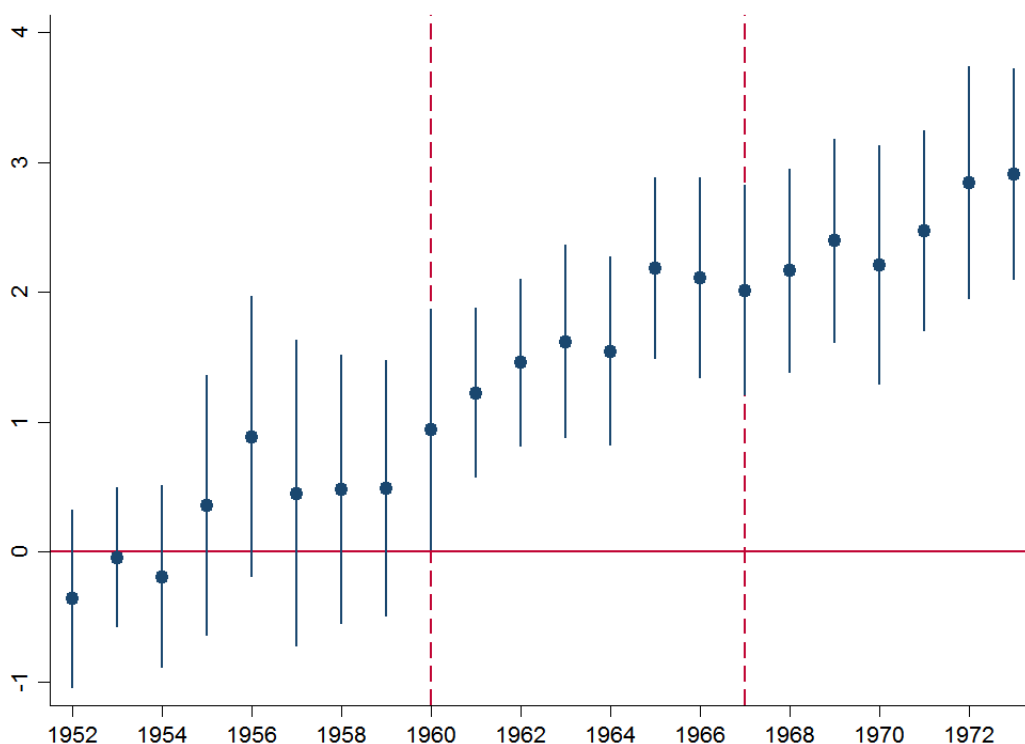
| $\beta$    | 1   | 1.2 | 1.4 | 1.6 | 1.8 | 2   | 2.2 | 2.4  | 2.6  | 2.8  | 3    | 3.2  | 3.4  | 3.6  |
|------------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| Effect (%) | 172 | 232 | 306 | 395 | 505 | 639 | 803 | 1002 | 1246 | 1544 | 1909 | 2353 | 2896 | 3560 |

## 5.2 Difference in difference dynamic estimates

I also present results for the second equation, following Angrist and Pischke (2009), which gives us a different insights about the effects we are finding. As in the static framework, I drop the dummy for 1951. Estimates are plotted in Figure 6, which show the anticipatory effects before 1960 and post-intervention effects after 1960. Table 2

can be useful to relate these point estimates to the export promotion package during the 1960s. Note that the parallel trend assumption is obeyed since no estimate is significant before 1960. The 1960 estimate is barely significant, probably because the fiscal incentives were effective at the moment of paying taxes, which is done once a year. However, all post-intervention effects are positive and significant. Moreover, they tend to increase over time: after 1964's anticipated reimbursements policy and after 1967 president Lleras' package to stabilize the balance of payments and its export promotion components. During the first half of the 1960s they move around 1.15 (or 215%) and they suddenly jump to 2 (638%) , and then they keep increasing after 1967 except for 1970-, moving closer to 2.8 (1544%).

FIGURE 6: DIFFERENCE IN DIFFERENCE DYNAMIC ESTIMATES

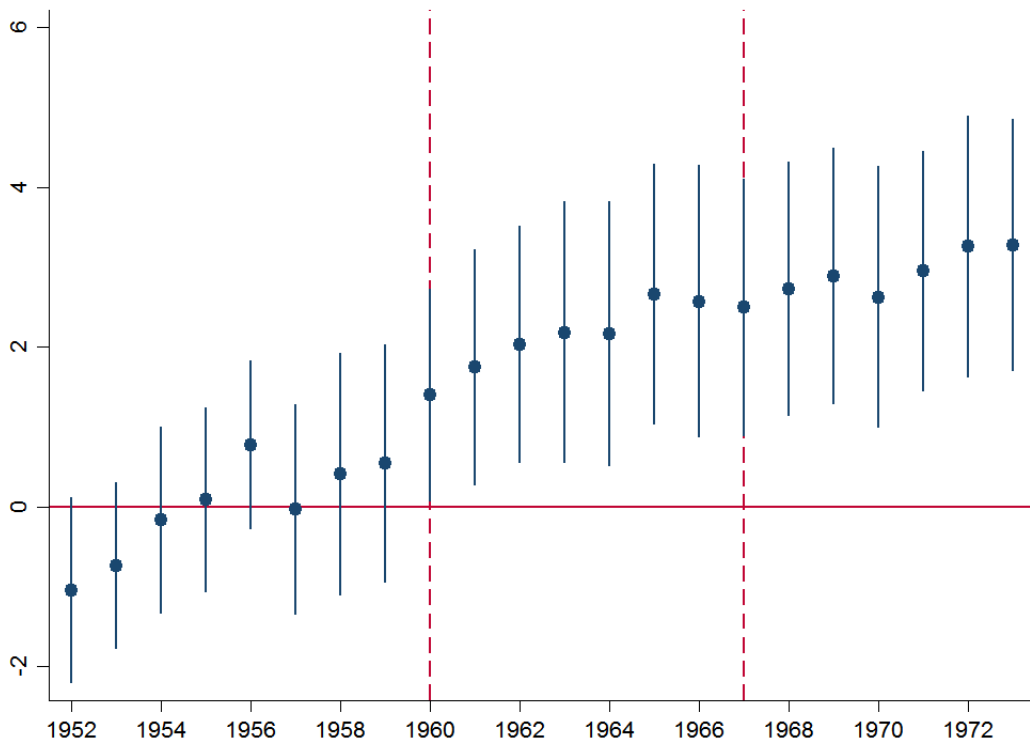


On the other hand, Figure 7 presents a plot for estimates in the Vallejo Plan approach, which shows the dynamic behavior of minor manufactured exports. There is a difference upon the previous aggregate estimates: the effects of Vallejo plan exports are larger, moving around 2.2 (or 803%) and 2.6 (1246%) in the early 60s and closely to 2.8 (1544%) and 3 (or 1908%) in the final export promotion waiver. Thus, its effects had an important initial boost that kept increasing after 1967 but not at its initial



high rates. This could be showing that the reforms to the Vallejo Plan following the 1967 statute, as told in Teigeiro and Elson (1973), didn't boost manufactures much further. This could also explain why, in 1974, a similar reform was done to the plan to weaken the program. Nevertheless, the estimates fulfill the parallel trends assumption throughout the 1950s, just as the previous ones.

FIGURE 7: VALLEJO PLAN DIFFERENCE IN DIFFERENCE DYNAMIC ESTIMATES



### 5.3 Further robustness checks

Tables 8 and 9 present placebo estimates for the difference in difference specification of the aggregate and Vallejo Plan, respectively. They also present regional estimates. A fake reform is simulated in 1956 to check for parallel trends between minor and traditional exports during the 1950s. Thus, a fake *Post* dummy is interacted with the treatment one to recover the  $\beta_1$  coefficient. Table 8 shows that there were no significant differences in the increase of exports between minor and traditional groups before the export promotion package, nor accounting for all importers, nor accounting

by continents, with the exception of Africa, Asia and Oceania, where the difference is negative and significant but, at least, doesn't break the model's assumptions.

TABLE 8: DIFFERENCE IN DIFFERENCE PLACEBO ESTIMATES

| Real exports in dollars |                     |                     |                   |                      |                    |                      |
|-------------------------|---------------------|---------------------|-------------------|----------------------|--------------------|----------------------|
|                         | Total               | USA-CAN             | CAC               | South america        | Europe             | AAO                  |
|                         | (1)                 | (2)                 | (3)               | (4)                  | (5)                | (6)                  |
| Minor X Post            | 0.277<br>(0.187)    | 0.125<br>(0.222)    | -1.317<br>(0.899) | -1.124<br>(0.756)    | -0.040<br>(0.222)  | -2.485***<br>(0.555) |
| M Population            | -4.579<br>(2.793)   | -9.863**<br>(3.913) | 2.047<br>(10.564) | 6.732<br>(7.548)     | -3.266<br>(11.831) | -16.827<br>(20.152)  |
| M GDPC                  | 2.873***<br>(0.543) | 4.765**<br>(1.983)  | -0.771<br>(1.354) | -6.017***<br>(2.249) | 1.054<br>(1.488)   | -2.050<br>(3.763)    |
| FE                      | M + I + T           | M + I + T           | M + I + T         | M + I + T            | M + I + T          | M + I + T            |
| Observations            | 5015                | 306                 | 1887              | 1071                 | 1462               | 238                  |

Note: clustered standard errors in parenthesis. CAC stands for Central America and the Caribbean, AAO stands for Africa, Asia and Oceania. M (importer), T (time), I (industry)

TABLE 9: PLAN VALLEJO PLACEBO ESTIMATES

| Real exports in dollars |                     |                     |                    |                      |                    |                      |
|-------------------------|---------------------|---------------------|--------------------|----------------------|--------------------|----------------------|
|                         | Total               | USA-CAN             | CAC                | South america        | Europe             | AAO                  |
|                         | (1)                 | (2)                 | (3)                | (4)                  | (5)                | (6)                  |
| Minor X Post            | 0.252<br>(0.571)    | 1.507***<br>(0.213) | -1.370<br>(0.846)  | -1.134<br>(0.762)    | -0.619*<br>(0.302) | -2.305***<br>(0.715) |
| M Population            | -4.769<br>(3.306)   | -9.883*<br>(3.860)  | 10.542<br>(12.507) | 9.961<br>(7.829)     | -5.132<br>(10.936) | -16.068<br>(26.259)  |
| M GDPC                  | 2.795***<br>(0.563) | 4.746*<br>(1.921)   | -1.931<br>(1.632)  | -7.628***<br>(2.133) | 1.154<br>(1.521)   | -3.337<br>(4.911)    |
| FE                      | M + I + T           | M + I + T           | M + I + T          | M + I + T            | M + I + T          | M + I + T            |
| Observations            | 3835                | 234                 | 1443               | 819                  | 1118               | 170                  |

Note: clustered standard errors in parenthesis. CAC stands for Central America and the Caribbean, AAO stands for Africa, Asia and Oceania. M (importer), T (time), I (industry)

On the other hand, estimates for the Vallejo Plan on Table 9 have higher variation. In this sense, parallel trends are achieved in most groups. The ones for Europe

and AAO present a negative and significant differences for minor and traditional exports which don't break our assumptions. Finally, estimates for USA and Canada show a positive and significant effect of 348%, which clearly breaks the parallel trends assumption for this case.

## 6 Conclusions

In this paper, I assess how the export promotion package of the 1960s in Colombia fostered minor exports. Moreover, I explore the dynamics of these effects throughout the different waivers of export promotion. I build on the historical background of the country's external sector to explore the dynamics of these effects throughout different waivers of export promotion, particularly, one in 1960 and another in 1967. Exploiting a quasi-experimental approach in the context of a gravity model, I find an average effect of the policy intervention of 550%, which varied across different importer continents. Particularly, major effects were found in Central America and the Caribbean and the groups formed by the USA and Canada. There were no significant effects, in contrast to the behavior of traditional exports, in South America, Europe and Africa, Asia and Oceania. I also exploit one component of the export promotion package, the Vallejo Plan, to search for effects regarding manufactures, which tend to be larger than the ones for aggregate exports, but with significant increases in exports to Europe. Moreover, the dynamic difference in difference approach shows that post-intervention estimates grew on time, especially after the 1967's second waiver. However, this was not necessarily the case for Vallejo Plan exports, which received a large boost in the early 1960s, which accounted for the majority of the total effect. The paper contributes, throughout an experimental framework, to the history of export promotion schemes, a branch of literature traditionally aligned towards times series approaches that was rapidly abandoned due to its issues in terms of causality and the shifts in the dynamics of the international economy.

Discussing the desirability of export promotion covers a realm that goes beyond the scope of the paper. However, against popular beliefs, it has survived -with different incentives- to the market reforms of the 1990s and it is nowadays sustained by national development banks and government agencies. In any case, these findings are linked to the export quest that policy makers have insisted in throughout the years, independently of the strategy. My intention is to characterize and quantify the extent of a decision that was taken in a specific context, which was full of complexities and

policy dilemmas. At the end, promoting exports throughout fiscal and financial incentives was a bold stance when the only alternative to accumulate foreign exchange and safeguard the economy from external shocks was, not waiting for advantageous coffee prices and the luck component associated to them in a conjunction of falling coffee prices since the 1950s but giving a push to a more stable a sustainable source of foreign income. Even more in a country with a lagged capital market and financial inclusion in which exporters struggled to lever themselves and clear their path in international markets; likewise, it was an alternative strategy to the common one of cutting imports in spite of the supplies and know-how components held back in them, beyond traditional import substitution strategies. Furthermore, we can think that developing countries didn't had other alternatives rather than using state-led industrialization strategies, especially when it was a common practice at the time, even in developed ones.

A further discussion that is usually left aside in this topic is the one about what it meant, in terms of welfare costs, being exposed to a few unstable commodities and a fragile external sector at the time. The bulk of the objections towards export promotion during the 70s and the 80s centered around its fiscal costs. However, less is talked about the linkages between the permanent state of balance of payments crises and the social dynamics of mid-century. In this sense, strategies to improve the health of the external sector were useful to remove this burden in a context of rising violence and inequality, the last one increasing from 0.45 in 1938 to 0.53 in 1971, following Ocampo and Tover (2000). Therefore, it can be argued, as in Diaz-Alejandro (1976), that the stronger external sector that minor exports diversification fostered gave policymakers the opportunity to redefine their priorities towards the most urgent ones of the time such as poverty, underemployment and the unequal income distribution, in which the direct contribution of the external sector is vague (i.e. more foreign exchange reserves to buy machinery and equipment could displace low skilled workers in the countryside or could be disproportionately distributed towards the owners of firms). In words of the author, "it's important, even *funny*, manipulating the exchange rate, but that itself won't have a significant impact upon the poorest stratum of Colombian society during much time".

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# Appendix

## A. Robustness checks with exports in real pesos

TABLE A1: DIFFERENCE IN DIFFERENCE ESTIMATES BY REGION

| Real exports in pesos |                     |                     |                      |                   |                   |                     |
|-----------------------|---------------------|---------------------|----------------------|-------------------|-------------------|---------------------|
|                       | Total               | USA-CAN             | CAC                  | South america     | Europe            | AAO                 |
|                       | (1)                 | (2)                 | (3)                  | (4)               | (5)               | (6)                 |
| Minor X Post          | 2.013***<br>(0.419) | 2.308***<br>(0.508) | 2.842***<br>(0.543)  | 1.043*<br>(0.592) | 0.486<br>(0.479)  | 1.271<br>(0.779)    |
| M Population          | 1.847<br>(2.104)    | 6.948<br>(7.053)    | 12.717***<br>(4.739) | 1.545<br>(2.892)  | -2.309<br>(1.657) | -15.955<br>(21.185) |
| M GDPC                | 1.254***<br>(0.385) | -0.134<br>(1.240)   | 2.731***<br>(0.999)  | 0.355<br>(0.549)  | 0.154<br>(0.642)  | -2.622<br>(2.932)   |
| FE                    | M + I + T           | M + I + T           | M + I + T            | M + I + T         | M + I + T         | M + I + T           |
| Observations          | 13107               | 782                 | 4981                 | 2737              | 3842              | 765                 |

Note: clustered standard errors in parenthesis. CAC stands for Central America and the Caribbean, AAO stands for Africa, Asia and Oceania. M (importer), T (time), I (industry)

TABLE A2: DIFFERENCE IN DIFFERENCE PLAN VALLEJO ESTIMATES

| Real exports in pesos |                     |                     |                      |                  |                     |                    |
|-----------------------|---------------------|---------------------|----------------------|------------------|---------------------|--------------------|
|                       | Total               | USA-CAN             | CAC                  | South america    | Europe              | AAO                |
|                       | (1)                 | (2)                 | (3)                  | (4)              | (5)                 | (6)                |
| Minor X Post          | 2.73***<br>(0.356)  | 3.140***<br>(0.722) | 2.919***<br>(0.511)  | 0.800<br>(0.598) | 1.799***<br>(0.529) | 0.837<br>(0.845)   |
| M Population          | 0.860<br>(2.071)    | 7.368<br>(7.751)    | 13.117***<br>(4.261) | 0.962<br>(2.969) | -3.201**<br>(1.493) | -7.108<br>(16.566) |
| M GDPC                | 1.368***<br>(0.315) | 0.196<br>(0.871)    | 3.700***<br>(1.018)  | 0.255<br>(0.503) | 0.523<br>(0.649)    | -1.566<br>(2.446)  |
| FE                    | M + I + T           | M + I + T           | M + I + T            | M + I + T        | M + I + T           | M + I + T          |
| Observations          | 10023               | 598                 | 3809                 | 2093             | 2938                | 585                |

Note: clustered standard errors in parenthesis. CAC stands for Central America and the Caribbean, AAO stands for Africa, Asia and Oceania. M (importer), T (time), I (industry)



FIGURE A1: DIFFERENCE IN DIFFERENCE DYNAMIC ESTIMATES (Pesos)

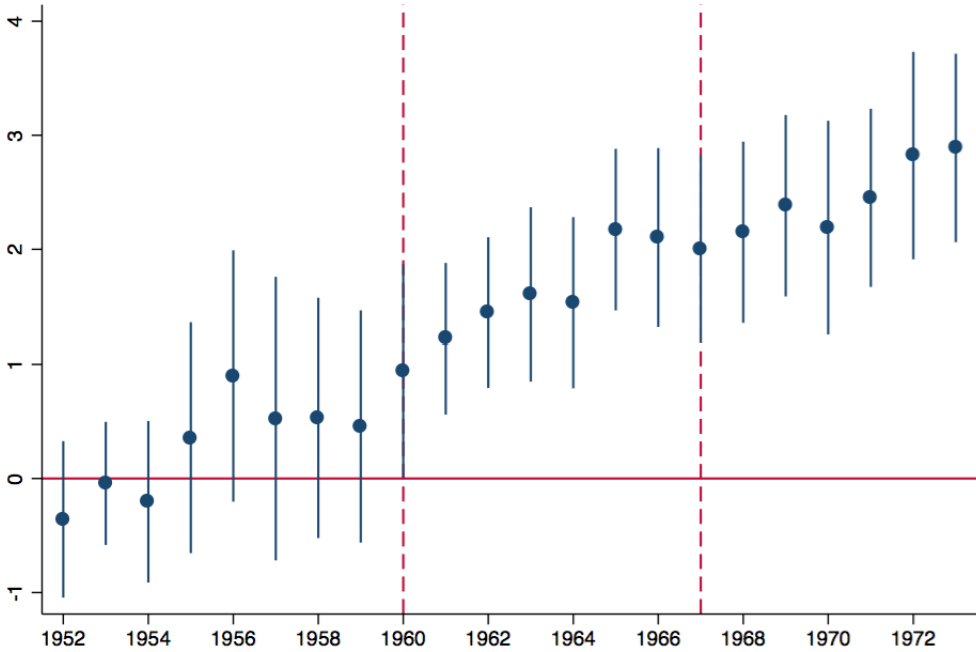


FIGURE A2: VALLEJO PLAN DIFFERENCE IN DIFFERENCE DYNAMIC ESTIMATES (Pesos)

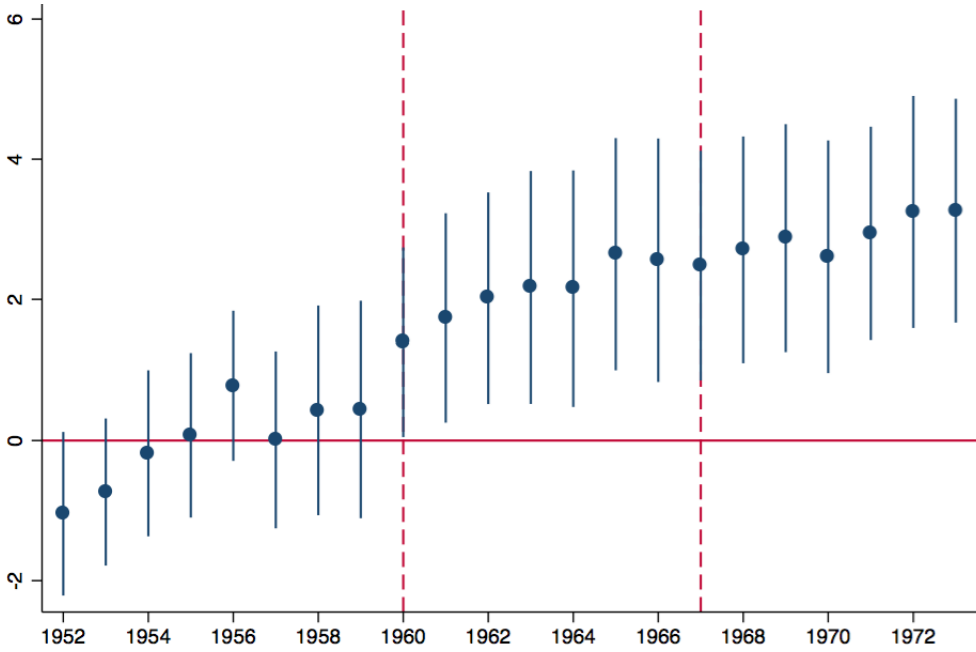


TABLE A3: DIFFERENCE IN DIFFERENCE PLACEBO ESTIMATES

| Real exports in pesos |                     |                      |                     |                      |                    |                      |
|-----------------------|---------------------|----------------------|---------------------|----------------------|--------------------|----------------------|
|                       | Total               | USA-CAN              | CAC                 | South america        | Europe             | AAO                  |
|                       | (1)                 | (2)                  | (3)                 | (4)                  | (5)                | (6)                  |
| Minor X Post          | 0.280<br>(0.219)    | 0.172<br>(0.49)      | -1.205**<br>(0.471) | -1.075<br>(0.721)    | -0.104<br>(0.186)  | -2.588***<br>(0.590) |
| M Population          | -5.196*<br>(3.042)  | -8.901***<br>(0.948) | 4.775<br>(10.410)   | 8.918<br>(9.906)     | -4.294<br>(12.216) | -17.571<br>(19.463)  |
| M GDPC                | 2.770***<br>(0.669) | 3.947***<br>(0.472)  | -1.163<br>(1.670)   | -6.639***<br>(2.454) | 0.865<br>(1.305)   | -1.679<br>(3.872)    |
| FE                    | M + I + T           | M + I + T            | M + I + T           | M + I + T            | M + I + T          | M + I + T            |
| Observations          | 5015                | 306                  | 1887                | 1071                 | 1462               | 238                  |

Note: clustered standard errors in parenthesis. CAC stands for Central America and the Caribbean, AAO stands for Africa, Asia and Oceania. M (importer), T (time), I (industry)

TABLE A4: PLAN VALLEJO PLACEBO ESTIMATES BY REGION

| Real exports in pesos |                     |                      |                      |                      |                      |                      |
|-----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                       | Total               | USA-CAN              | CAC                  | South america        | Europe               | AAO                  |
|                       | (1)                 | (2)                  | (3)                  | (4)                  | (5)                  | (6)                  |
| Minor X Post          | 0.296<br>(0.454)    | 1.571***<br>(0.287)  | -1.292***<br>(0.421) | -1.067<br>(0.731)    | -0.605***<br>(0.201) | -2.400***<br>(0.542) |
| M Population          | -5.575<br>(3.562)   | -8.907***<br>(0.914) | 17.912<br>(14.003)   | 12.155<br>(11.039)   | -5.514<br>(12.998)   | -17.609<br>(20.152)  |
| M GDPC                | 2.748***<br>(0.728) | 3.917***<br>(0.470)  | -2.663<br>(1.908)    | -8.051***<br>(2.583) | 0.977<br>(1.407)     | -2.833<br>(3.796)    |
| FE                    | M + I + T           | M + I + T            | M + I + T            | M + I + T            | M + I + T            | M + I + T            |
| Observations          | 3835                | 234                  | 1443                 | 819                  | 1118                 | 170                  |

Note: clustered standard errors in parenthesis. CAC stands for Central America and the Caribbean, AAO stands for Africa, Asia and Oceania. M (importer), T (time), I (industry)

## B. Original foreign trade yearbooks

### FIGURE B1: FOREIGN TRADE YEARBOOKS

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COMERCIO EXTERIOR - PRIMERA PARTE

Exportación por secciones y capítulos - Países de venta - 1951-1952 - (Continuación)

| Número del Capítulo   | SECCIONES Y CAPITULOS   | PAISES DE VENTA      |                      |                   |                      |                      |                   |
|---|---|----------------------|----------------------|-------------------|----------------------|----------------------|-------------------|
|   |   | 1951                 |                      |                   | 1952                 |                      |                   |
|   |   | Kilogramos brutos    | Kilogramos netos     | Valor Pesos       | Kilogramos brutos    | Kilogramos netos     | Valor Pesos       |
| Estados Unidos (continuación)   |   |                      |                      |                   |                      |                      |                   |
| 17  | SECCION IV - PRODUCTOS DE LAS INDUSTRIAS ALIMENTICIAS; BEBIDAS, LIQUIDOS ALCOHOLICOS Y VINAGRES; TABACO | 9.835                | 9.740                | 3.128             | —                    | —                    | —                 |
| 23  | Residuos y desechos de las industrias alimenticias  | 78.283               | 73.002               | 99.370            | 3.577.749            | 3.595.401            | 430.980           |
| 24  | Tabaco  | —                    | —                    | —                 | 3.639                | 3.596                | 6.433             |
|   | <b>Total de la Sección</b>  | <b>88.140</b>        | <b>84.742</b>        | <b>102.468</b>    | <b>3.581.408</b>     | <b>3.529.087</b>     | <b>437.402</b>    |
| SECCION V - PRODUCTOS MINERALES   |   |                      |                      |                   |                      |                      |                   |
| 25  | Sal, azufres; tierras y piedras; cales y cementos   | 3.750.902            | 3.726.127            | 272.610           | 100.751              | 100.120              | 14.320            |
| 26  | Minerales, escorias, cenizas  | 297.031              | 293.039              | 75.523            | 517.318              | 605.182              | 104.252           |
| 27  | Combustibles minerales; aceites minerales y betúmenes bituminosos; productos de su destilación          | 2.353.229.010        | 2.353.229.010        | 95.185.542        | 2.152.558.798        | 2.152.548.977        | 91.788.773        |
|   | <b>Total de la Sección</b>  | <b>2.357.276.943</b> | <b>2.357.248.776</b> | <b>95.533.675</b> | <b>2.153.176.867</b> | <b>2,153.154.279</b> | <b>91.905.345</b> |
| SECCION VI - PRODUCTOS QUIMICOS Y FARMACEUTICOS; COLORES Y BARNICES; PERFUMERIA; JABONES; BUJIAS Y SIMILARES; COLAS Y GELATINAS; EXPLOSIVOS; ABONOS |   |                      |                      |                   |                      |                      |                   |
| 28  | Productos químicos y farmacéuticos  | 415                  | 305                  | 4.253             | 138                  | 127                  | 13.984            |
| 29  | Productos químicos y preparados y demás productos para cinematografía y fotografía                      | 567                  | 535                  | 10.613            | 682                  | 600                  | 18.336            |
| 30  | Extractos curtientes y tintórcos; colores; secantes; barnices, mastics y tintas; lápices y minas        | 43.470               | 38.948               | 36.646            | —                    | —                    | —                 |
|   | <b>Total de la Sección</b>  | <b>44.452</b>        | <b>39.878</b>        | <b>51.542</b>     | <b>821</b>           | <b>730</b>           | <b>30.520</b>     |
| SECCION VII - PIELS, CUEROS, PELETERIA Y OBRAS DE ESTAS MATERIAS  |   |                      |                      |                   |                      |                      |                   |

(a) 1952

Exportación por Capítulos y Países de Venta en Orden Alfabético 1972

| No. CAPÍTULO | CONTENIDO DEL CAPÍTULO  | VALOR F.O.B. |                   | No. CAPÍTULO | CONTENIDO DEL CAPÍTULO | VALOR F.O.B.  |                   |            |           |
|--------------|---|--------------|-------------------|--------------|------------------------|---|-------------------|------------|-----------|
|              |   | KILOS BRUTOS | PESOS COL. U.S.S. |              |                        | KILOS BRUTOS  | PESOS COL. U.S.S. |            |           |
| 59           | GUATAS Y FIELTROS, CORDAJES CUERDAS Y ARTICULOS DE CORDELONIA; TEJIDOS ESPECIALES TEJIDOS IMPREGNADOS O REQUIBIERTOS; ARTICULOS DE MATERIAS TEXTILES PARA USOS TECNICOS   | 38,948       | 373,800           | 16,467       | TOTAL PAIS             | 48,771  | 2,059,910         | 93,815     |           |
| 62           | OTROS ARTICULOS DE TEJIDOS CONFECCIONADOS   | 13,494       | 130,413           | 5,822        | 27                     | BAHAMAS, ISLAS, ACEITES MINERALES Y PRODUCTOS DE SU DESTILACION; MATERIAS BITUMINOSAS; CERAS MINERALES                            | 89,173,590        | 35,901,858 | 1,467,580 |
| 71           | PERLAS FINAS, PIEDRAS PRECIOSAS, SEMIPRECIOSAS Y SIMILARES; METALES PRECIOSOS; CAMPANOS DE METALES PRECIOSOS Y MANUFACTURAS DE ESTAS MATERIAS; BISUTERIA DE FANTASIA  | 2,223,000    | 100,000           |              | 42                     | MANUFACTURAS DE CUERO, ARTICULOS DE QUARNICIONERIA, DE TALABARTERIA Y DE VIAJE, MARROQUINERIA Y ESTICHERIA, TRIPAS MANUFACTURADAS | 176,480           | 16,968     | 799       |
| 82           | herramientas, articulos de cuchilleria y cubiertos de mesa, de metales comunes  | 8,082        | 379,177           | 16,962       | 60                     | GENEROS DE PUNTO  | 3                 | 61,841,176 | 285,179   |
| 84           | Calderas, maquinas, aparatos y artefactos mecánicos   | 90           | 4,300             | 200          | 61                     | PRENDAS DE VESTIR Y SUS ACCESORIOS DE TEJIDOS   | 422               | 125,418    | 5,599     |
| 85           | Maquinas y aparatos electricos y aparatos destinados a usos electrotecnicos   | 9,430        | 282,263           | 13,062       | 64                     | Calzados, botines, polainas y articulos análogos, partes componentes de los mismos  | 880               | 127,698    | 5,762     |
| 87           | vehiculos automoviles, tractores, velosivos y otros vehiculos terrestres  | 1,060        | 22,428            | 988          | TOTAL PAIS             | 89,253,545  | 42,447,257        | 1,904,901  |           |
| 92           | Instrumentos de musica, aparatos para el registro y la reproduccion del sonido o para el registro y la reproduccion en television, por procedimiento magnetico de imagenes y sonido, partes y accesorios de estos instrumentos y aparatos | 57,112       | 429,647           | 19,284       | 21                     | Preparados almenticios diversos   | 1,550             | 12,189     | 541       |
| 97           | joyas, joyeros, articulos para regalo y para regalo   | 5,920        | 571,513           | 25,478       | 23                     | Residuos y desperdicios de las industrias alimenticias  | 1,486,619         | 5,429,216  | 248,788   |
|              | TOTAL PAIS  | 27,347,509   | 321,782,066       | 14,678,865   | 25                     | SAL, AZUFRE, TIERRAS Y PIEDRAS, YESOS, CALES Y CEMENTOS   | 1,056,431         | 65,508     | 28,023    |
| 09           | CAFE, TE, MATE Y ESPECIAS   | 86,275       | 1,970,358         | 90,009       | 27                     | COMBUSTIBLES MINERALES, ACEITES MINERALES Y PRODUCTOS DE SU DESTILACION; MATERIAS BITUMINOSAS; CERAS MINERALES                    | 400               | 10,541     | 480       |
| 14           | MATERIAS PARA TERNERAS Y TALLAN Y OTROS PRODUCTOS DE ORIGEN VEGETAL NO EXPRESADOS NI COMPRENDIDOS EN OTRA PARTE DE LA NOMENCLATURA  | 22           | 4,420             | 197          | 38                     | PRODUCTOS DIVERSOS DE LAS INDUSTRIAS QUIMICAS   | 5,000             | 80,698     | 3,600     |
| 42           | MANUFACTURAS DE CUERO, ARTICULOS DE QUARNICIONERIA, DE TALABARTERIA Y DE VIAJE, MARROQUINERIA Y ESTICHERIA  |              |                   |              | 39                     | MATERIAS PLASTICAS ARTIFICIALES, ETERNOS Y ESTEROS DE LA CELULOSA; RESINAS ARTIFICIALES Y MANUFACTURAS DE ESTAS MATERIAS          | 3,229             | 41,548     | 1,918     |
|              |   |              |                   |              | 40                     | CAUCHO NATURAL O SINTETICO, CAUCHO FACTICIO Y MANUFACTURAS DE CAUCHOS   | 325               | 8,657      | 386       |

(b) 1972