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# EXTERNAL VULNERABILITY IN MEXICO (2009–2024): A PERSPECTIVE THROUGH THE LENS OF THE INTERNATIONAL INVESTMENT POSITION AND INCOME FLOWS

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**ABSTRACT:** This paper's goal is to investigate the interplay between external stocks and flows of the Mexican economy from 2009 to 2024, and how this interaction affected the country's external vulnerability. In order to do that, the analysis centers on the International Investment Position (IIP) and the income flows it generates, as well as the characteristics of the peripheral economies' external financial integration within the context of financial globalization in the current century. Mexico has a structural deficit in its income and current account balance, a negative IIP with external liabilities yielding higher returns than assets, a leading role of valuation effects as drivers of the evolution of the IIP and its IIP is marked by an increase in external assets and liabilities over the period, while their compositional structure remained broadly unchanged. Finally, with regard to Mexico's specificities, it is noteworthy that, first, the deficit in trade balance due to the export platforms, and second, and more intriguingly, the key role of secondary income in boosting the current account balance, mainly associated with remittances sent by Mexican workers located in the US to their families.
**KEY-WORDS:** External vulnerability; International Investment Position; Income flows; Mexican economy.

## INTRODUCTION

Latin America's economic history is permeated by external vulnerability, since its beginnings with colonization to the contemporary challenges of overcoming underdevelopment. At CEPAL's pioneering formulation, under the center-periphery configuration of capitalism, Prebisch (2011[1949]) attributed the productive dependency relations to the unequal distribution of technical progress. More recent structuralist authors pushed this debate further since the final of the last century (Carneiro, 1999, 2008; De Conti *et al.*, 2014; Ocampo, 2001, Prates, 2005) incorporating the financial dimension, as well as the hierarchies and asymmetries of the International Monetary and Financial System (IMFS).

Regarding external vulnerability, beyond the amplification of exposition and risks to peripheral economies in the 21th century, it is important initially to define the idea precisely. Conceptually, Ribeiro (2016, p. 19-21) organizes the views of external vulnerability in two fronts.

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On one side, it is linked to the risks of the economic system feels major disturbances provoked by external shocks, while on the other hand, non-antagonically, but complementary, the focus is at the conditions of external liquidity and solvency, that is, the capacity to honor the external commitments with creditors in the short and the long run.

From the analytical perspective adopted here, external vulnerability has two interdependent dimensions, which are, the stock of external liabilities and the income inflow it generates. Noije (2014a) argues, for the Brazilian economy, that the pressure for foreign exchange generation due to net income remitted abroad constitutes a structural feature of the external integration, marked by the circularity between stocks and flows, i.e, the inflows of foreign capital serves to honor external commitments generated by these same external stocks (Noije and De Conti, 2016).

Thus, it is clear the division, as well as the interplay, between stocks and flows in determining the external vulnerability. The stock-vulnerability derives from the composition and magnitude of external assets and liabilities stocks, which can be seen through the lens of the International Investment Position (IIP), while the flow-vulnerability is related to foreign exchange generation to meet the Balance of Payments' income commitments and the circularity effect described above (Noije and De Conti, 2016).

In this sense, this interplay gives rise to a dichotomy in the generation and mobilization of hard currency. On the one hand, there is a continuous need to generate hard currency to service external liabilities; on the other hand, although exports and remittances constitute non-debt-creating flows, reliance on external finance ultimately increases the stock of external liabilities, thereby perpetuating dependency[3]. In both respects, external vulnerability constrains the prospects for economic growth and development, given the reduced capacity to allocate hard currency toward the import of capital goods as well as the reliance on foreign investment to meet the external commitments; thus, beyond the traditional foreign exchange constraint, another key manifestation of external vulnerability is the continuous subordinated relationship with foreign investors in order to keep receiving cash flows to meet up the external accounts.

A central feature of external stocks regards their drivers of evolution. Fluctuations in value are mostly dependent on changes in the value of the stocks themselves, due to asset prices and exchange rate movements, revealing a certain degree of autonomy in relation to the current account balance (Noije and De Conti, 2016).

[3] When discussing the potential benefits of American foreign investment to assist European countries in the post-war, Domar (1950, p. 805) stated the "basic defect" of it, which is, these inflows create stock liabilities, thereby demanding future income outflows: So envisaged, a continuous policy of this kind might be agreeable to all concerned if it did not appear to suffer from one basic defect: since loans and investments are usually subject to the payment of amortization and interest (or dividends), the inflow of funds so produced is expected after a relatively short interval to exceed the outflow- a phenomenon which seems to be embarrassing to both the borrower and the lender".

This paper's goal, situated within a broader research agenda on external vulnerability in contemporary Latin America, is to investigate the Mexican external sector through the lens of its IIP and the income flow. The guiding hypothesis is a similar behavior to the Brazilian[4] economy, at different levels, characterized by: (i) a structural deficit in the income balance; (ii) a negative IIP, i.e, larger external liabilities than assets; (iii) a differential return on external assets and liabilities, with the latter yielding higher returns than the former; (iv) a leading role of valuation effects as the driver of the IIP, while the current account plays a secondary part.

The chosen time period is the first quarter of 2009 to the fourth quarter of 2024, due to data availability for the IIP at the Mexican Central Bank (Banxico) and the International Monetary Fund (IMF)[5]. On the international stage, this context was marked by the responses to the 2008 Global Financial Crisis (GFC), the moment of *search-for-yield* typical of the post-crisis, and the outbreak of the Covid-19 pandemic in 2020, when massive capital flights occurred in the beginning of that year. Furthermore, it is noteworthy that the availability of information for periods before 2009 is a relevant empirical gap, which is mapped and will be addressed in our research agenda.

The paper is structured as follows. The first section outlines the global and domestic conjuncture during the period under analysis (2009-2024), taking as its core argument the changes in the periphery's pattern of financial integration in the 21st century, as well as Mexico's external sector specificities. Next, the theoretical and conceptual elements of the literature on external vulnerability are presented, tracing its multiple definitions, distinguishing between its dimensions, and synthesizing its negative consequence to peripheral economies. In the third section, Mexico's external vulnerability is investigated through the lens of its International Investment Position (IIP) and the income flows. The analysis highlights the compositional structure of external assets and liabilities, their estimated returns, and the drivers of the IIP's evolution over the years. Final remarks conclude the discussion.

## 1. GLOBAL ECONOMIC CONDITIONS AND MEXICO'S EXTERNAL SECTOR

In this section, we discuss the IMFS' current conformation, the deepening of the processes of financial liberalization and globalization, and the changes in the external integration pattern of peripheral economies, through the lens of their stocks of external assets and liabilities. Moreover, the second subtopic addresses Mexico's external sector productive and financial features, which are

[4] This dialogue between Brazil and Mexico in the paper is due to their similarity as the biggest Latin America economies with the deepest financial integration, as well as to the theoretical underpinning of the framework proposed in light of the Brazilian economy.

[5]The most recent available data span from the first quarter of 2009 to the third quarter of 2025. However, for methodological reasons, we opted not to include 2025, since the absence of fourth-quarter data makes a yearly analysis unfeasible.

mainly: the regressive industrial specialization based on export platforms operated by transnational corporations, a trade balance chronically in deficit and concentrated in terms of products and countries, the "de-petrollization" of exports, and the key role of secondary income sent by Mexican workers located mostly at the US to generate foreign exchange currency. Thus, item 1.1 deals with the international conditions, while item 1.2 presents the domestic ones.

## 1.1 GLOBAL ECONOMIC CONDITIONS

The last decades of the 20th century were stage of a paradigm shift in the capitalism system, transitioning it from the *managerial welfare state* - robust and articulated financial system, linked to social care - to the *money-manager capitalism* - leading role of the "money managers", such as pensions funds, a continuous process of financial innovation, and the financialization and the shareholder value maximization as the *rationale* (Minsky, 1996; Wray, 2016).

From this perspective, there was in course the constitution of a new economic international order (Carneiro, 1999). From the debunking of Bretton Woods, according to which the IMFS was characterized by capital controls and fixed exchange rates (Eichengreen, 2008), the result was an order described by three main features, namely: the free capital mobility, the fluctuant exchange rates, and the dollar hegemony, under the so-called flexible, financial, and fiduciary dollar pattern, in addition to the emergence of financialization[6] as the systemic pattern of wealth management (Prates, 2002).

This new order, known as financial globalization, was shaped by the interplay between the progressive financial liberalization, in the domestic sphere, and the crescent capital flows mobility, in the international level. It means, therefore, the interpenetration of capitals between countries, the formation of transnational oligopolies, and the internationalization of key sectors of financial markets (Chesnais, 1995; Carneiro, 1999).

In the 21st century, under this scenario, the financial integration of peripheral economies deepened. This resulted from both structural elements and favorable global conditions, particularly foreign investors' appetite for riskier positions in financial markets located below the Equator line. In this way, the external financial integration developed on two fronts, namely: a greater presence of foreign investors in these markets, and these countries' access to international markets (Burger *et al.*, 2012; Akyuz, 2017, 2021).

According to Akyuz (2021), the distinctive traits of this new external integration pattern are the changes in terms of capital composition (increase of portfolio investment), sector (corporative indebtedness as the hard-core of external debt), and currency (significant de-dollarization of external

[6] Polysemic concept. See Braga *et al.* (2017) and Kaltenbrunner and Painceira (2017).

liabilities). Furthermore, in the wake of the commodity boom, external assets were boosted with the international reserves accumulation, and the *search-for-yield* moment post-2008 crisis attracted massive capital inflows to the periphery, especially in the form of portfolio investment.

Kaltenbrunner and Painceira (2015) synthesize the external integration pattern in four pillars: (i) an increase without precedence in short-run foreign capital flows; (ii) a higher exposition of foreign investors to assets denominated in peripheral currencies, such as Brazilian Reais and Mexican Pesos; (iii) a shorter maturity of these assets in these currencies; (iv) the complexification of financial assets in order to generate profits through trading rather than long-run investment, making the system more nebulous to the regulators.

Indeed, the changes in the magnitude and composition of external assets and liabilities in the current century have modified the interactions between the national and the international sphere (Akyuz, 2017). According to Kaltenbrunner & Painceira (2015), the new forms of external vulnerability (NFEVs) are associated with the linking of exchange rate movements to global financial markets, as well as the exchange rate's key role in allocating foreign investors' portfolios around the world.

Consequently, exchange rates become one of the risk and return components of these portfolios, as they carry a currency mismatch (assets are denominated in multiple currencies, while liabilities are denominated in foreign center currency). The result is volatile movements of capital flows and exchange rates, delinked from macroeconomic fundamentals and directly related to the behavior of these investors as they seek to fulfil their desired returns and liquidity.

It is noteworthy that, on the one hand, external liabilities increased and their maturity shortened; on the other hand, there have been changes in their currency denomination, expressed by the growth of the local currency share (Biancarelli, 2012, 2019; Noije and De Conti, 2016, Marçal, 2026). In this context, the economic literature started to question the persistence of the original sin in its traditional version, i.e., the historical incapacity of peripheral countries to borrow money abroad in their own currency (Eichengreen and Hausmann, 1999; Eichengreen *et al*., 2005a, 2005b), and/or its evolution to a new form, known as the original sin redux (Eichengreen *et al.*, 2023; Carstens and Shin, 2019).

Whether through original sin in a less perverse form or from the redux perspective, contrary to the dramatic 1980’s, external indebtedness in local currency seems positive to peripheral economies, due to positive valuation effects on stock positions during periods of exchange rate

depreciation (Mishkin, 1996; Cysne, 2008). Thus, it is possible to note how during a crisis, an exchange rate depreciation is correlated with a decrease in the external liabilities[7].

In sum, the current century is marked by the consolidation of a new external integration pattern of peripheral economies, distinct yet subordinated, which does not overcome the hierarchical and asymmetric features of the IMFS. The qualitative changes of external stocks point to the emergence of new forms and dynamics of external vulnerabilities, where the behavior of foreign investors and their impacts over the exchange rate fluctuations determine the mood of external accounts. With regard to the composition, the most significant modifications were the increasing participation of portfolio investment and local currency-denominated financial commitments.

## 1.2 MEXICO'S EXTERNAL SECTOR

Historically, Mexico achieved notoriety in international financial circles due to the 1982 debt crisis, the peak of which was the default, and the 1994 crisis (known as the Tequila Crisis). In both these moments, a *sudden stop*[8] of capital flows occurred, resulting in liquidity and solvency problems. Overcoming these difficulties, like its Latin American peers, Mexico adopted the neoliberal macroeconomic paradigm, grounded in financial liberalization and an inflation-targeting regime, in order to improve its image in international financial markets.

However, according to Nadal *et al.* (2020), the structural reforms, the stabilization programs with the IMF, and the adjustment efforts with the World Bank were not capable of fostering sustainable growth for the Mexican economy. On the contrary, the authors point critically that neoliberalism's legacy in Mexico has been low growth, low productivity, high inequality, and chronic macroeconomic unbalances.

Under the financialization era, as discussed in the previous section, Mexico has modernized its financial sector, driven by public bonds (*Tesobonos*, before the 1994 crisis, and the Treasury Bonds - *Certificados de Tesorarία* -, since then), at the expense of destructuring its productive sector that comes along with the activation of the export sector. The result was an increased dependence on external demand and more importantly, on foreign capital flows to cover its current account deficits (Levy-Orlik, 2014).

Currently, the Mexican external sector is marked by high financial liquidity and integration, features that are reinforced by the geographical proximity with the US and the country's oil reserves (Batini *et al.*, 2020). In the productive dimension, Nadal *et al.* (2020) highlight the relocation of the

[7] The controversies surrounding the redemption of original sin, or its evolution to original sin redux, center on the presumed positive effects of indebtedness denominated in a country's own currency, a feature observed in some peripheral economies, such as Brazil, in the 21st century. See Marçal (2026) for a concise synthesis of this debate.

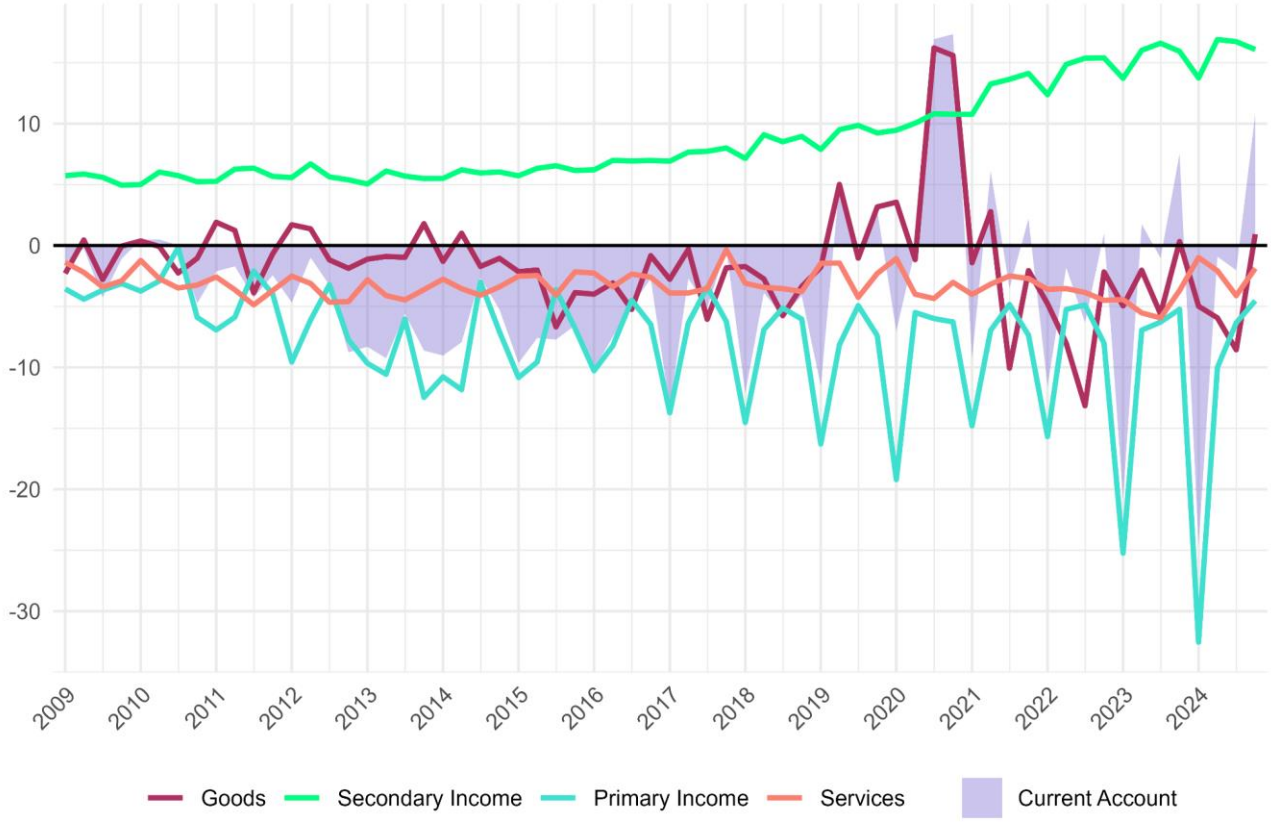
[8] This concept was introduced by Calvo (1998). For a critical evaluation of financial liberalization in the periphery and the theoretical developments within mainstream economics, see Biancarelli (2010).

domestic market toward the external market and call into question the success of the trade balance restructuring, as well as the exports' "de-petrolization" in favor of manufacturing.

These authors argue that the growth of exports, from 19% to 36% of the GDP between 1982 and 2018, was more than outweighed by the even greater growth in imports, which rose from 19% to 40% of the GDP in the same period. The result is "vicious circle of increasing imports to raise exports" (Levy-Orlik, 2014, p.118) and thereby a trade balance systematically in deficit and dependent on external financing to fulfill its income commitments.

Consequently, and due to the historical and structural deficit in the income balance, typical of peripheral economies and understood as a crucial expression of external vulnerability, as will be discussed in the next topic, the current account also is chronically in deficit. What draws attention, however, is the role of secondary income (remittances) in the composition of the current account, acting as a buffer against external shocks. These refer to remittances sent by Mexican workers, mostly located in the US, to their families. As Figure 1 evidences, the secondary income balance jumped from nearly US$5 billion in the first quarter of 2009 to around US$16 billion, in the last quarter of 2024.

**Figure 1 -** Mexico - Balances of Current Account Components, 2009–2024




**Source:** The authors. Data from the Sistema de Información Económica (SIE) - Banco Central de México (Banxico).
**Notes:** Quarterly data in US$ billions.

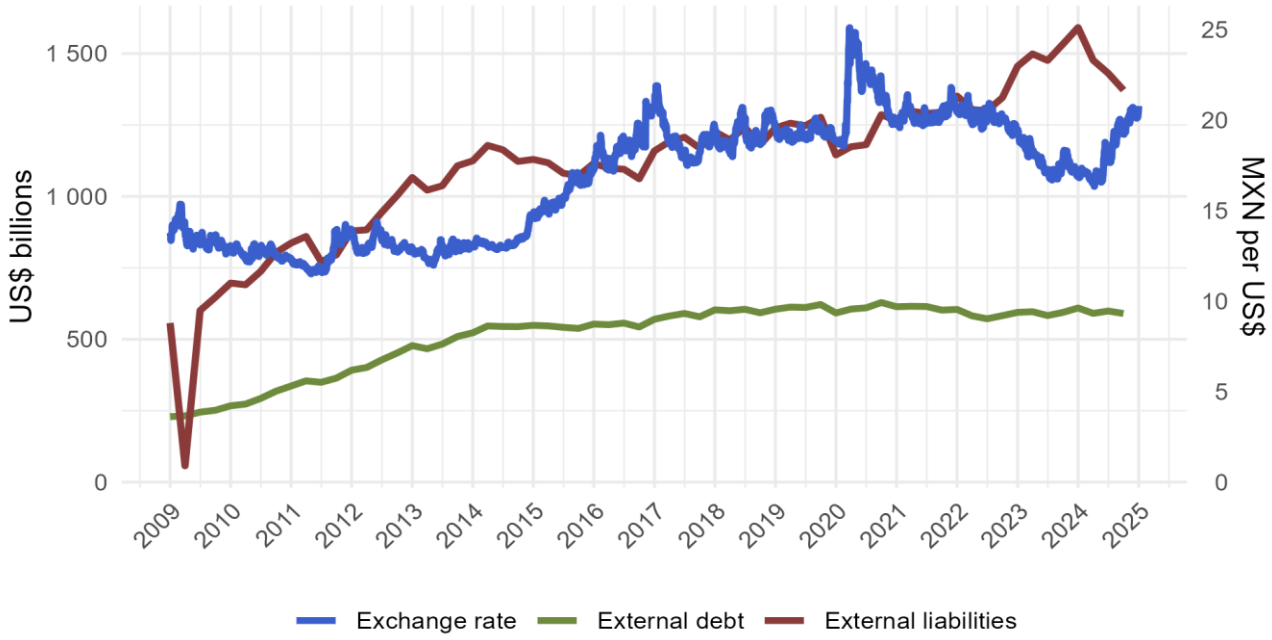
The presence of export platforms operated by transnational corporations can be seen in the seasonal movement of the primary income balance, mostly related to profit remittances sent abroad in the last quarter of the year. Furthermore, according to Nadal *et al.* (2020), these export platforms, rather than pointing to an evolution of Mexico within the International Division of Labor, reveal the continuity of dependence and regressive specialization.

Known as the *Maquilas*, Mexico's pattern of external productive integration consists in exports of medium and high tech products by using high levels of imports and scarce links with local suppliers. Therefore, the production is concentrated in low productivity segments, without connections with the domestic economy, and low investment in R&D (Levy-Orlik, 2014). Furthermore, Nadal *et al.* (2020) point to the dependency of the North American market, which absorbs around 80% of the country's exports, and the limited productive diversification, with only the automobile sector generating surpluses.

This high dependency on the US due to the configuration of Mexico's trade balance, as well as to its needs of external financing, should light an alert on Mexican policy makers on these days of Trump's administration. The hegemonic and imperialist attitude of the US' president towards the Global South economies is well stated in international circles, even more for Latin American countries such as Mexico during a progressive administration of Claudia Sheinbaum.

Regarding the exchange rate, the trend over the period was of depreciation, with two critical moments, which were the 2008 crisis and the Covid-19 pandemic, in the beginning of 2020. It's noteworthy that, through Figure 2 below, episodes of exchange rate depreciation, such as 2009, 2014-2015, 2019-2020 and 2024, coincide with decreases in external liabilities, implying that there is a non-negligible share of financial commitments denominated in local currency - this matter will be discussed more emphatically in the next section:

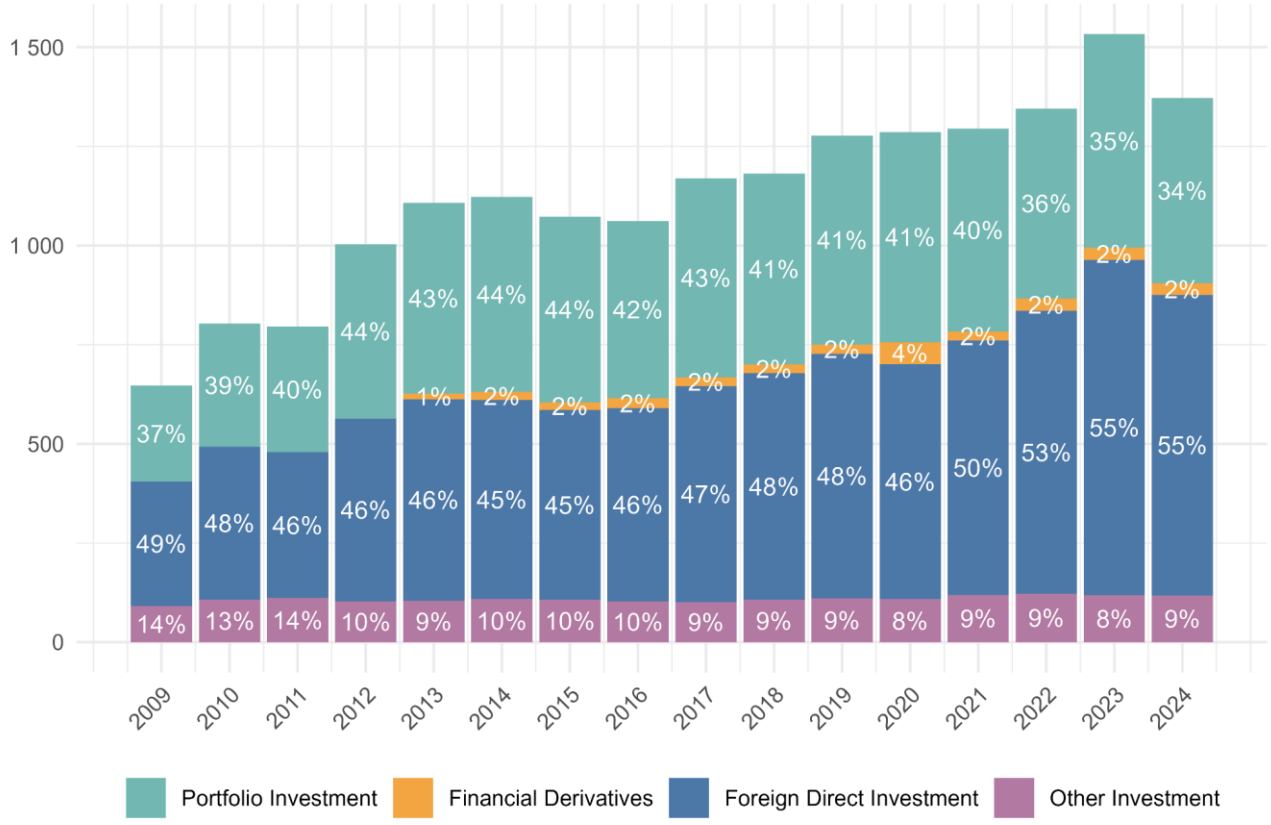
**Figure 2 -** Mexico - Nominal exchange rate MXN/US$, external debt and liabilities, 2009-2024



**Source:** The authors. Data from the Mexican Central Bank (Banxico).
**Notes:** (1) Exchange rate: "*Daily U.S. dollar-MXN exchange rate historical series - (CF373)*"; (2) Quarterly data of debt and liabilities, in US$ billions.

Beyond the magnitude of external liabilities, their compositional structure by instrument remained broadly unchanged between 2009 and 2024, as Figure 3 shows:

**Figure 3 -** Mexico - Evolution and composition of external liabilities, 2009-2024




**Source:** The authors. Data from IMF.
**Notas:** Data in US$ billions, last quarter of each year.

Since 2009, foreign direct investment (FDI) is the main component of external liabilities, representing by the end of 2024, 55% of them, around US$757 billion. Next, we have portfolio investments, which exceeded the 40% mark of the total in the 2010s, a period of *search for yield.* By the end of 2024, this category represented only 34% of the total, equivalent to approximately US$457 billion. Finally, it must be highlighted the decrease and stabilization of other investment, where the traditional external debt is situated, in levels below 10%. This indicates the growing importance of other forms of external financing, especially under the already mentioned context of financial globalization, liberalization and innovation.

In summary, the central elements of Mexico's external sector, as discussed above, are: (i) a chronically in deficit trade balance, resulting from the country's specific productive integration, led by export platforms operated by transnational corporations; (ii) a key role for secondary income in boosting the current account balance; (iii) as expected, chronically deficit in income and current account balances; (iv) an increase in external liabilities, driven by FDI and portfolio investment; (v) a potentially non-negligible share of these external liabilities denominated in local currency. However, the subordinated and financialized nature of the external integration remains unchanged, as in other Latin American economies. In the following sections, the debate on external vulnerability and its multiple dimensions is resumed in order to further develop the analysis of Mexico, based on the IIP and income flows.

## 2. EXTERNAL VULNERABILITY DERIVED FROM THE INTERNATIONAL INVESTMENT POSITION AND THE INCOME FLOWS: DEFINITION AND IMPLICATIONS

From Mexico to Brazil, external vulnerability has afflicted Latin American economies since their origins with colonization to the present time, in which international financial capital knows no borders and embeds itself in increasingly complex assets around the globe. To a greater or lesser extent throughout history, external vulnerability has been discussed by Latin American economists, although in many cases these discussions lack a precise systematization of the concept, with its multiple definitions, dimensions, and implications.

According to Biancarelli (2019), the term “vulnerability” initially alludes to weakness, susceptibility, low capacity for defense, and point to the fact that, despite its widespread use in economics, few authors define it precisely. In this work, the author outlines the evolution of the concept of external vulnerability, as well as highlighting its polysemic meaning.

Ribeiro (2016, p. 19-21) addresses external vulnerability in two fronts. The first concerns the risks of the economic system suffering major disturbances as a result of some shock of external origin, these disturbances being visible in terms of output, employment, and, in the field of political economy, in the erosion of national governments in the face of exchange rate movements. On the other hand, the second front, complementing the other, focuses on the liquidity and solvency conditions, that is, the capacity to honor the external commitments with creditors in the short and the long run.

Thus, towards a precise definition, external vulnerability:

> It is indeed about weakness, fragility, and susceptibility to movements in the international economy, but one that (and this is the key point) manifests itself not in a general way, but in a specific one: the difficulty of "closing the books" on the external accounts, or the risk that a deficit in the Current Account of

> the Balance of Payments will not be financed voluntarily and in a timely manner (Biancarelli, 2019, p. 4)[9].

Additionally, this phenomenon affects the commercial sphere, the productive-technological, and the monetary-financial (Gonçalves, 2005). While in the beginnings of CEPAL's formulation with Prebisch (2011[1949]) the emphasis was on the formers, the financial globalization period in course since Bretton Woods' demise, shifted the focus to the former, due to the deepening of financial liberalization and financialization processes typical of this context.

This does not mean that previous expressions of external vulnerability cease to exist; rather there is an interplay between the three spheres. However it's argued that financial dominance has become the key channel of wealth transfer and the breeding ground of fragilities in the periphery.

In the financial sphere, the interplay between external stocks and income remitted abroad is explored by Noije (2014a, p. 546) through the concept of "external vulnerability deriving from the International Investment Position and income flows". From this angle, the IIP's circularity, connecting flows and stocks, is the key element in determining the vulnerability: a negative IIP generates an income outflows, which if not compensated by current account's surpluses, requires external financing to cover this deficit, thereby increasing external liabilities and thus provoking further income outflows in the future.

In this sense, the circularity engenders a "potential vulnerability" that manifests itself in the constrained autonomy of domestic economic policy, given its dependence on hard-currency generation to meet external commitments. Vulnerability, then, becomes associated with the risks of shifts in international liquidity conditions. Therefore, the interaction between stocks and flows reveals the two distinct, yet connected dimensions of external vulnerability: "flow-vulnerability" and "stock-vulnerability" (Noije and De Conti, 2016).

Briefly, Noije and Carvalho (2024) define flow-vulnerability as arising from the need for hard currency to service income remittances abroad. This need can be met either through the real economy (via trade surpluses and remittances) or through the financial sphere, which increases external liabilities and thus perpetuates the circular dynamic. Stock-vulnerability, in turn, stems from the refinancing or amortization of external liabilities, should creditors seek to reallocate their portfolios.

According to Kregel (2004), the continuous need of external financing to maintain the service of income remittances constitutes a *Ponzi* pattern of financial fragility, making the economy hostage of the international markets' trust. In other words, since the trade balance, as the main source of hard currency, can not match the income balance, an implicit and constant form of financial fragility and

[9] Translated by the authors.

dependency emerges, that is, the need of external financing to serve the income obligations, generated by the country's liabilities, such as FDI, portfolio investments and external debt.

Under this framework, the perverse implications of the external vulnerability derived from the IIP and the income flows it generates Prebisch (2011[1949]) glimpsed the initial insights, when arguing that an increase of foreign capital today means an increase of external liabilities (stocks), which generates future financial services (flows). Thereby, this financial services, or more precisely, income remittances, will demand a crescent share of the exports product, leaving less room for the imports of capital goods to boost the domestic economic growth. In sum, the income flows kidnap the country's hard currency resulting from the exports and reap the possibilities of economic growth and development by limiting the country's margin to import capital goods. In this sense, the main contribution of this paper is to advance a framework of external vulnerability stemming from income flows, within a structuralist approach.

Beyond this trade-off, the limitations of growth with current account deficits are captured by Domar's condition: the sustainability of the process depends on the relationship between the growth rate of exports and the interest rate on external liabilities (Domar, 1950). Thus, for them, the central question concerns the evolution of the ratio of net external liabilities to exports, as the latter constitute the primary source of hard currency (Medeiros and Serrano, 2001).

More precisely, for Latin American countries, where remittances play a key role in the current account, the fundamental relationship is between the generation of hard currency to service external liabilities and income flows originated by those liabilities. In this sense, Kregel (2004, p. 5) affirms that the cash to serve these financial commitments can come from five possible sources: a positive net balance on goods and non-factor services trade; foreign exchange reserves generated by past current account surpluses; multilateral or bilateral official development assistance; net private capital inflows; or foreign debt forgiveness. However, for peripheral economies, it is crucial to add remittances to this list, as they play a leading role in current account balances. They act as a non-debt-creating flows of foreign currency, representing the external contribution of citizens residing abroad to their home countries[10].

On the one hand, external vulnerability stemming from the IIP and income flows manifests itself in the competition for the hard currency generated by exports, thereby constraining imports. On the other hand, since Mexico's trade balance is often in deficit, there is a persistent reliance on external financing to meet income remittance obligations, as well as on remittances sent by Mexicans

[10] "labour immigration through migrant remittances creates a stabilizing item in the labour factor services account of developing countries so that easier developed country immigration policy for workers from developing countries could replace both giving and lending as a means of increasing international financial stability (Kregel, 2004, p.8).

mostly based in the US, reflecting financial fragility due to its exposure to movements in international markets and to the behavior of the American economy.

Therefore, external financing is a "two-edged sword": in the absence of a macroeconomic strategy ensuring that external resources generate export capacity exceeding the external liabilities' financial costs, the system inevitably evolves into a configuration of extreme fragility, in which development is sacrificed to sustain debt servicing (Kregel, 2004). Despite this fragility not manifesting itself through regular currency crises, it can be seen by the continuous and implicit reliance and subordination to foreign investors to keep rolling and meeting up the external accounts.

As a result of the composition of their external liabilities and the circularity effect, peripheral economies become bound to international liquidity cycles[11] and their policy autonomy[12] is reduced. In other words, the priority of domestic macroeconomic objectives shifts to controlling the external accounts, subordinating national needs like employment and income generation.

Thus, even though external crises no longer exhibit the dramatic contours of the currency crises of the late twentieth century[13], external vulnerability continues to be a relevant phenomenon for the periphery, assuming a more nebulous and complex physiognomy, embedded in national macroeconomic structures and ideas.

Through the lens of the International Investment Position and the income flow, therefore, it is possible to glimpse the exposition, the risks, and the resilience[14] of national economies. Furthermore, the evolution of the IIP, especially of its external liabilities, has acquired a dynamic of its own (Noije and De Conti, 2016).

## 3. MEXICO'S EXTERNAL VULNERABILITY THROUGH THE LENS OF THE IIP: ESTIMATED RETURNS, INCOME FLOW DYNAMICS AND DRIVERS OF EVOLUTION

In this section, we examine the International Investment Position (IIP) as defined by the International Monetary Fund (2009), the return differentials between external assets and liabilities, and the dynamics of income flows in the Mexican economy over the period 2009–2024. The first subsection outlines the structure and composition of the IIP, highlighting its main components. We then present the estimated returns on assets and liabilities. As typically observed in peripheral economies, a substantial return differential emerges, representing another manifestation of external

[11] See Biancarelli (2007).

[12] The ability of States to pursue sovereign macroeconomic policies, which is constrained by their positions within the IMFS. (Prates, 2005; Fritz *et al*., 2016).

[13] The obvious exception for this argument being Argentina.

[14] An alternative definition of external vulnerability that has been gaining traction was proposed by Essers (2013). For this author, external vulnerability is the product of the probability of shocks, exposure, and resilience. See Rosa and Biancarelli (2024).

vulnerability. Finally, we analyze Mexico's income flow dynamics to assess how the country's IIP has evolved over the past decade. Beyond changes driven by financial flows, a significant share of movements in the IIP can be attributed to valuation effects, such as price and exchange rate fluctuations, namely, Nominal Holding Gains (NHG).

## 3.1 INTERNATIONAL INVESTMENT POSITION: A CONCEPTUAL FRAMEWORK

The International Investment Position (IIP) is an account that records a country's stocks of external assets and liabilities at a given point in time, maintaining a direct relationship and interconnection with the Balance of Payments (BOP) - particularly under its 6th edition, which aims to facilitate the analysis of the interactions between stocks and flows (IMF, 2009):

**Table 1 -** International Investment Position (IIP)

| **(A) Gross external assets** | **(B) Gross external liabilities** |
|---|---|
| ● Direct investment abroad<br>● Portfolio investment<br>● Financial derivatives<br>● Other investment<br>● Reserve assets | ● Foreign Direct Investment<br>● Portfolio Investment<br>● Financial Derivatives<br>● Other investment |

**Source:** IMF (2009).

The difference between external assets and liabilities constitutes the IIP; that is, it represents the country's net external position vis-à-vis the rest of the world (IMF, 2009). One important feature of the IIP, as shown in the literature, concerns the drivers of its evolution, which can be associated with two dimensions: variations in flows, expressed through the current account balance, or changes in the stock values, resulting from valuation effects and other adjustments. This second dimension is often referred to as Holding Nominal Gains (HNG). It can be defined as the changes in the value of assets (or liabilities) provoked by fluctuations in key prices, such as exchange rates (Noije, 2014a, 2014b; Noije and De Conti, 2016; Noije and Carvalho, 2024) .

The literature cited above shows a broad consensus regarding the predominance of Holding Nominal Gains (HNG) over flow-related drivers in explaining the evolution of the IIP in recent years. In the case of the Brazilian economy, for example, the HNG effect often outweighs the contribution of the current account to the dynamics of external stock positions, suggesting a relative autonomy of stock adjustments with respect to BOP flows (Noije and De Conti, 2016).

In light of this conceptual framework, we can take a first glance at Mexico's IIP over the period of 2009-2024, using data provided by the IMF.

As shown in Table 2, external liabilities were significantly larger than external assets throughout the period, as expected for peripheral economies, and indicate the presence of external vulnerability from a stock perspective.

**Table 2 -** Mexico - International Investment Position, 2009-2024

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Net IIP (A-L)** | -338,9 | -413,4 | -377,1 | -513,7 | -582,9 | -548,1 | -510,6 | -471,3 | -541,1 | -564,1 | -630,4 | -551,9 | -552,2 | -613,4 | -757,9 | -571,3 |
| **Assets (A)** | 308,0 | 389,9 | 418,3 | 489,0 | 524,4 | 574,5 | 561,8 | 590,3 | 627,8 | 617,0 | 646,8 | 734,2 | 743,1 | 732,3 | 774,9 | 800,8 |
| Direct investment abroad | 113,9 | 149,4 | 149,2 | 190,0 | 184,6 | 198,2 | 191,6 | 202,5 | 226,9 | 212,7 | 223,2 | 237,2 | 244,3 | 241,4 | 259,8 | 269,7 |
| Portfolio investment | 35,7 | 40,2 | 35,5 | 41,3 | 47,6 | 49,9 | 47,1 | 45,7 | 62,8 | 54,3 | 62,0 | 77,7 | 98,0 | 86,0 | 111,3 | 120,9 |
| Other investment | 58,6 | 68,1 | 72,0 | 78,4 | 99,0 | 108,3 | 125,1 | 138,3 | 138,8 | 146,6 | 155,1 | 171,2 | 166,1 | 168,1 | 154,3 | 154,8 |
| Financial derivatives | 0 | 0 | 0 | 0 | 13,0 | 22,4 | 20,4 | 25,8 | 23,9 | 27,1 | 23,6 | 49,0 | 27,0 | 35,6 | 35,1 | 23,4 |
| Reserve assets | 99,9 | 120,6 | 149,2 | 167,1 | 180,2 | 195,7 | 177,6 | 178,0 | 175 | 176 | 183 | 199 | 207,7 | 201,1 | 214,4 | 232,1 |
| **Liabilities (L)** | 647,0 | 803,3 | 795,4 | 1.002,7 | 1.107,3 | 1.122,5 | 1.072,4 | 1.061,6 | 1.169,0 | 1.181,1 | 1.277,2 | 1.286,1 | 1.295,3 | 1.345,7 | 1.532,8 | 1.372,1 |
| Foreign direct investment | 314,0 | 384,9 | 367,8 | 461,4 | 507,9 | 502,7 | 478,5 | 486,7 | 544,5 | 570,4 | 616,3 | 502,5 | 641,3 | 712,8 | 845,4 | 757,8 |
| Portfolio investment | 241,9 | 310,7 | 316,6 | 438,7 | 480,4 | 491,7 | 467,8 | 446,4 | 501,3 | 480,6 | 526,8 | 529,8 | 512,4 | 479,0 | 538,2 | 467,9 |
| Other investment | 91,0 | 107,8 | 111,0 | 102,6 | 104,7 | 108,0 | 107,0 | 102,9 | 100,9 | 107,3 | 110,8 | 108,2 | 119,2 | 122,3 | 118,1 | 117,7 |
| Financial derivatives | 0 | 0 | 0 | 0 | 14,3 | 20,2 | 19,7 | 25,6 | 22,2 | 22,8 | 23,3 | 55,6 | 22,4 | 31,0 | 31,1 | 28,6 |

**Source:** IMF.
**Notes:** Annual data in US$ billions.

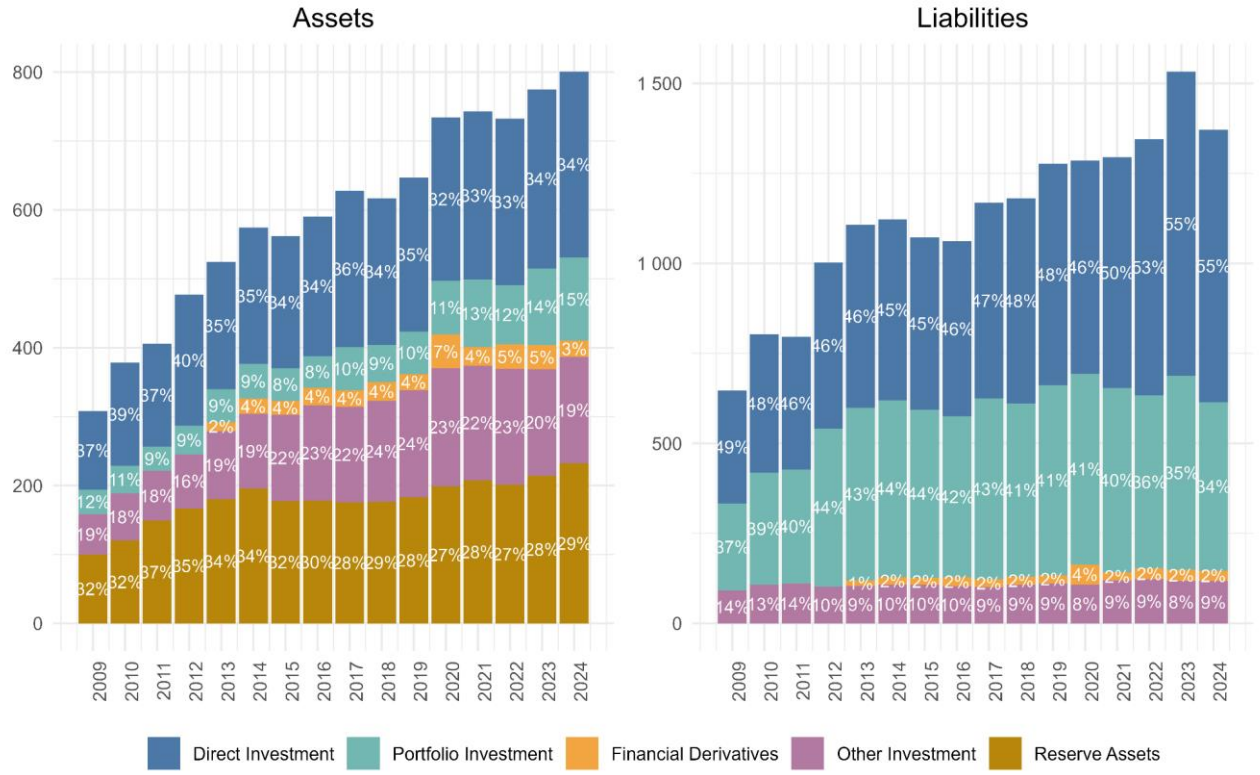
Going further, it is important to investigate the composition of external assets and liabilities in terms of their instruments and, when data are available, their currency denomination. Portfolio investment is generally associated with a higher degree of risk and volatility, as its demand is largely speculative and tends to be amplified by herd behavior in financial markets during boom–bust phases of global liquidity cycles (Kaltenbrunner and Painceira, 2015; Bonizzi, 2017; De Paula *et al.,* 2024). Moreover, external indebtedness denominated in a country's own currency tends to be safer, as exchange rate depreciation generates positive valuation effects on the overall stock position (Mishkin, 1996; Cysne, 2008; Biancarelli, 2012, 2019; Rosa and Biancarelli, 2024)[15].

Figure 4 illustrates the compositional structure of Mexico's IIP, distinguishing between external assets and liabilities. External assets were predominantly composed of direct investment abroad, which accounted for 37% of the total in 2009 and 34% in 2024. Reserve assets represented the second-largest component (declining from 32% to 29%), followed by other investment (around 19%). In gross terms, external assets increased from US$308 billion to US$800 billion over the period under analysis, largely driven by a 70% expansion in portfolio investment, in absolute terms, and a 62% rise in other investment. Despite this substantial growth in levels, the overall structural

[15] The controversies surrounding the redemption of original sin, or its evolution to original sin redux, center on the presumed positive effects of indebtedness denominated in a country's own currency, a feature observed in some peripheral economies, such as Brazil, in the 21st century. See Marçal (2026) for a concise synthesis of this debate.

composition remained broadly stable by the end of 2024, with the only notable change being a modest increase in the relative importance of financial derivatives.

**Figure 4 -** Mexico - Evolution and composition of external assets (left) and liabilities (right), 2009-2024




**Source:** The authors. Data from IMF.
**Notes:** Data in US$ billions and % of the total.

On the other hand, Mexico's external liabilities over the period under consideration were predominantly composed of foreign direct investment (49% in 2009, rising to 55% in 2024), followed by portfolio investment (declining from 37% to 34%) and other investment (from 14% to 9%). Overall, gross external liabilities increased from US$646 billion in 2009 to US$1.3 trillion in 2024, growing at a moderate pace while broadly maintaining their compositional structure.

Concerning the currency denomination of external liabilities, the Central Bank (Banxico) does not provide this breakdown in its IIP, in contrast to other countries like Brazil. Nevertheless, the Bank of International Settlements (BIS) has an interesting dataset that gives us some useful information about portfolio investment, more specifically, about sovereign bonds: the *Emerging market sovereign bonds* (BIS, 2023).

For Mexico, in the first quarter of 2009, the foreign participation in local currency sovereign bond markets was 7,71%, rising to 13,51% in the fourth quarter of 2021, the last observation of the time series. Moreover, the share of local currency in foreign holdings of sovereign bonds rose from

32,91% to 46% in the same period. These data point to a modest exposure of foreign investors to Mexico's local currency, as well as the presence of positive valuation effects on a share of the external liabilities stock during episodes of exchange rate depreciation[16].

Summing up, from a stock-vulnerability perspective, Mexico's external assets expanded substantially over the past decade, mainly driven by portfolio and other investment, although the largest shares continue to be accounted for by direct investment and reserve assets. External liabilities grew at a moderate pace while broadly maintaining their compositional structure. The predominance of FDI, along with a non-negligible share of foreign holdings of sovereign bonds in local currency, points to positive features of Mexico's IIP, despite its negative overall position, as expected.

The next topic examines the estimated returns on these assets and liabilities. As discussed above, beyond the stock dimension, it is essential to analyze the differential returns between external assets and liabilities in order to capture another dimension of external vulnerability, namely that related to income flows.

## 3.2 ESTIMATED RETURNS: DIFFERENTIALS BETWEEN EXTERNAL ASSETS AND LIABILITIES

According to Noije and Carvalho (2024, p. 6), the return of an account X can be calculated by dividing its flows, expressed in the Balance of Payments, by the stock, presented in the IIP:

$$return\ X_t = \frac{X's\ FLOW in\ "t"}{X's\ annual\ STOCK, at\ the\ end\ of\ "t"\ period} \quad (1)$$

Therefore, the estimated return for portfolio investment (asset) in the last quarter of 2009, for example, results from the division of credits relative to interest or portfolio investment explicitly (depending on the BPM6 presentation of each country) by the stock of portfolio investment (asset) in the same period.

A stylized fact for peripheral economies is that external liabilities tend to yield higher returns than external assets. Because these economies issue a non-convertible currency (Carneiro, 2008)[17], the interest rate formation mechanism must offer higher remuneration to investors, relative to assets denominated in central currencies, in order to attract and retain capital.

[16] With debt contracts denominated in local currency, when there is an unanticipated devaluation of local currency, the debt burden decreases, that is, the capacity to pay these commitments is greater than before. See Mishkin (1996).

[17] "a currency is inconvertible if it lacks acceptance at the international level or, more precisely, if it does not perform any of the classic functions of money in that sphere: unit of account, means of payment, or store of value. Thus, for example, commodities are not quoted internationally in inconvertible currencies, nor do such currencies serve as the denomination currency for commercial or financial contracts. Even less do they denominate reserve financial assets, whether held by private agents or by central banks" (Carneiro, 2008, p. 539-540). Translated by the authors.

Figure 5 below pictures the estimated returns of Mexico's external assets and liabilities over the period of 2009-2024:

**Figure 5 -** Mexico - Estimated return on the IIP, 2009-2024




**Source:** The authors. Data from IMF.

**Notes:** (1) Average mean of each year; (2) Assets' returns were estimated quarterly dividing the primary income balance in the BoP (credit) by the total stock of external assets described in the IIP; (3) Liabilities' returns were estimated quarterly dividing the primary income balance in the BoP (debit) by the total stock of external liabilities described in the IIP.

As expected, external liabilities' returns systematically outweighed those of external assets, signaling another expression of external vulnerability. In the post-2008 crisis context, a moment of *search for yield* in the peripheral financial markets, liabilities' return increased continuously. At the beginning of 2020, with the outbreak of the Covid-19 pandemic, the return declined due to capital flights. However, these outflows subsided quickly within the same year, and returns began to rise again.

From this perspective, the figure above draws the essentially speculative nature of peripheral external integration. The structural configuration, that is, the higher return of external liabilities, is combined with the dynamic of capital flows, shaped by arbitrary and globalized goals of capital preservation and accumulation. Thus, in the differential returns of assets and liabilities are expressed - both algebraically and theoretically - the flow and stock dimensions of external vulnerability.

The next subsection provides us one last insight into Mexico's external vulnerability through its IIP. This final step consists of examining income flow dynamics and their role in changes in the

IIP, as well as the interplay between current account variations and valuation effects as drivers of IIP fluctuations.

### 3.3 INCOME FLOW DYNAMICS AND THE DRIVERS OF IIP'S EVOLUTION

As discussed in Section 3.1, the IIP can fluctuate either due to changes in flows or as a result of valuation effects on stocks. Regarding changes in the IIP balance, variations generated by flows are captured by the current account balance, while stock positions change in value due to price fluctuations, understood earlier in this paper as nominal holding gains (NHG) accruing to the holders of these external claims (Noije, 2014a, 2014b).

Furthermore, as discussed before, the circular relationship between the IIP and the income it generates configures a potential vulnerability stemming from dependence on external financing (Noije and Carvalho, 2024). Besides that, external stocks exhibit a degree of autonomous behavior, as nominal holding gains (NHG) have played a central role in driving changes in their values over the years. This was the case for Brazil (Noije and De Conti, 2016), as well as for Mexico.

Algebraically, the drivers of IIP's evolution are calculated as described below (Noije and Carvalho, 2024):

$$IIP\ Variation_t = IIP_t - IIP_{t-1} \quad (2)$$

$$(CA/IIP\ Variation)_t = \frac{CA_t}{IIP\ Variation_t} \quad (3)$$

$$(NHG/IIP\ Variation)_t = 1 - (CA/IIP\ Variation)_t \quad (4)$$

In equation (2), the change in the IIP between period *t* and its predecessor, *t–1*, is presented. Equation (3) expresses the share of the IIP variation explained by the current account balance (CA), while equation (4) attributes the remaining variation not accounted for by the CA to nominal holding gains (NHG), in line with the literature discussed above.

With this framework, the upper panel of Table 3 presents the evolution of the current account components over the period, disaggregated into the balance of goods and services, primary income, and secondary income. The latter is highlighted due to its importance for Mexico's external sector, as discussed in Section 1.2. In turn, the lower panel relates these flows to variations in the IIP, highlighting the main drivers of its evolution: the current account (flow dimension) and NHG effects (stock dimension).

Table 3, as well as Figure 1 (p. 7), shows that Mexico's balance of goods and services was negative during all years over the period. This result is mostly due to the fact that, in the productive-commercial dimension, the country's external integration is marked by a high presence of export

platforms, in which, although exports grow, imports grow even more, overcompensating for the former (Nadal *et al*., 2020).

**Table 3 -** Mexico - Variation of the IIP and the Current Account (in US$ billions) and the contribution of driving factors to annual changes in the IIP (in %), 2009-2024

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Goods + services | -14.8 | -13.6 | -16.0 | -14.6 | -15.9 | -16.6 | -25.8 | -23.7 | -22.7 | -27.6 | -4.3 | 21.7 | -23.1 | -43.8 | -32.0 | -27.6 | -389.4 |
| Primary income | -14.7 | -12.7 | -18.9 | -26.6 | -38.7 | -32.7 | -30.8 | -29.5 | -29.7 | -32.6 | -36.7 | -37.0 | -33.9 | -33.8 | -43.7 | -53.4 | -575.6 |
| Secondary income | 22.5 | 22.6 | 24.3 | 23.5 | 22.9 | 24.4 | 25.1 | 27.8 | 31.0 | 34.3 | 37.1 | 42.1 | 52.6 | 58.9 | 63.1 | 64.3 | 697.3 |
| CA | -7.1 | -3.8 | -10.5 | -17.7 | -31.8 | -24.9 | -31.5 | -25.3 | -21.4 | -25.9 | -3.9 | 26.9 | -4.6 | -18.9 | -12.6 | -16.7 | -268.1 |
| IIP | -338.9 | -413.4 | -377.1 | -513.7 | -582.9 | -548.1 | -510.6 | -471.3 | -541.1 | -564.1 | -630.4 | -551.9 | -552.2 | -613.4 | -757.9 | -571.3 | - |
| IIP Variation | - | -74.5 | 36.3 | -136.6 | -69.2 | 34.8 | 37.4 | 39.3 | -69.8 | -23.0 | -66.3 | 78.5 | -0.3 | -61.2 | -144.5 | 186.6 | -336.5 |
| Primary inc./IIP Var. | - | 17% | -52% | 19% | 56% | -94% | -82% | -75% | 43% | 142% | 55% | -47% | 12254% | 55% | 30% | -29% | 171% |
| Secondary inc./IIP Var. | - | -30% | 67% | -17% | -33% | 70% | 67% | 71% | -44% | -149% | -56% | 54% | -18984% | -96% | -44% | 34% | -207% |
| Goods + serv./IIP Var. | - | 18% | -44% | 11% | 23% | -48% | -69% | -60% | 32% | 120% | 6% | 28% | 8350% | 71% | 22% | -15% | 116% |
| CA/IIP Var. | - | 5% | -29% | 13% | 46% | -71% | -84% | -64% | 31% | 113% | 6% | 34% | 1647% | 31% | 9% | -9% | 80% |
| NHG/IIP Var. | - | 95% | 129% | 87% | 54% | 171% | 184% | 164% | 69% | -13% | 94% | 66% | -1547% | 69% | 91% | 109% | 20% |

**Source:** The authors. Data from IMF and Banxico.
**Notes:** CA= Current Account; IIP = International Investment Position; NHG = Nominal Holding Gain.

At the same time, these platforms, combined with deep and liquid financial markets, are accountable for a negative result in primary income, transferring profits and dividends abroad. A positive feature, however, can be seen through secondary incomes, related to remittances sent by Mexican workers mostly located in the US to their families in Mexico. Thus, secondary income acts as a buffer to stabilize the current account's overall results, which were negative for almost all the years of the sample, except for 2020 (US$26.9 billion).

On the other hand, primary income configures a flow mechanism of operationalizing surplus transfer by transforming the foreign possession of national assets into a permanent obligation to export capital to service its financial services (Noije, 2014b). Over the period under analysis, primary income reached -US$575 billion and accounted for 171% of the IIP variation, outweighing the trade balance contribution (116%).

Furthermore, as discussed in the first section, Mexico's pattern of external integration was marked by an increasing reliance on foreign capital to cover its current account deficits (Levy-Orlik, 2014), a feature that can be seen in the growing importance of primary income - the remuneration of this capital - over the years. While in 2009 trade balance and primary income stood really close in the current account's composition - US$14.8 e US$14.7 billion, respectively - , the gap between them grew continuously to 2024, with the income flows surpassing the "real" side. Thereby, there was in course the consolidation of a reliance on external financing to balance the country's current account, as well as a weakening of the productive-commercial sphere, synthesized in the *Maquila's* form of industrial organization (See Section 1.2).

Regarding the drivers of the IIP' evolution, valuation effects related to NHG played a leading role in explaining year-by-year variations in the IIP. However, the cumulative change was largely driven by fluctuations in the current account (80%), with NHG accounting for the remaining 20%, a minor yet non-negligible share.

Taking 2020 as an example, the current account had a surplus of US$26.9 billion, while the IIP increased by US$ 78.5 billion. This implies a US$51.6 billion rise attributable to valuation effects (NHG) , which, in percentage terms, accounts for approximately 66% of the IIP variation in that period.

Summing up, there are two main features of Mexico's IIP which can be identified from its inflow dynamics and the drivers of its evolution. First, secondary income plays a key role, due to Mexico's geographic and economic characteristics, in pushing up the current account balance. Second, a non-negligible share of IIP's variation is explained by NHG: 20% overall, but acting as the leading driver in year-by-year fluctuations. This points to an autonomous behavior of the country's external stocks.

In this sense, the circular relationship between the IIP and the income inflows it generates constitutes a potential external vulnerability. This vulnerability is manifested in the continuous need to generate hard currency (through exports or remittances) and in the deepening dependence on external finance to meet commitments, a dynamic that ultimately increases external liabilities.

Consequently, this circularity represents a permanent mechanism of surplus transfer from Mexico to advanced economies, and it highlights the tension between the need to adjust external accounts and the domestic objectives of fostering economic growth and development. Beyond the classical foreign exchange constraint, external vulnerability arising from the IIP and income flows sheds light on the contradictions inherent in relying on external financing to meet obligations that are largely generated by the stocks themselves. This dynamic has important implications for national macroeconomic policy, particularly in terms of reduced policy autonomy, given the potential adverse effects of exchange rate fluctuations and sudden stops - or, even more importantly, the "sudden non-inflows" - in foreign capital flows on the economy to balance the current account deficit.

## FINAL REMARKS

In the 21th century, the continuous processes of financial globalization, opening, and liberalization changed the contours of external vulnerability in peripheral countries, such as Mexico. Although currency crises hardly happened over this period, external vulnerability now assumes new forms, characterized by more complex financial instruments, as well as important compositional changes on external assets and liabilities stocks.

Under this scenario, in order to address external vulnerability in a more precise and holistic way, it is necessary to investigate its two interconnected dimensions, i.e., stocks and flows, as well as their interplay. On one hand, stock-vulnerability is associated with the magnitude and composition of external positions; on the other hand, flow-vulnerability is related to the need for hard currency to service income remittances abroad, generated by those stocks. Metaphorically, the stock-dimension analyzes external vulnerability as a picture, focusing on the positions, while flow-vulnerality takes a movie perspective, looking into the movements of capital flows, as well as the evolution of positions fostered by the stock themselves.

Within the framework adopted here, external vulnerability is marked by a dichotomy between generating hard currency to meet external commitments, via trade surpluses or remittances, or to foster economic growth. While exports and remittances constitute a non-debt-creating flows, the deepening reliance on external finance ultimately increases external liabilities, thereby perpetuating the dependency. Thus, the imperative of external adjustment supersedes the goals of economic growth and development.

Some features of external vulnerability on the current days are shared by the peripheral economies, such as Brazil and Mexico. The hypothesis set forth in the introduction regarding the Mexican case were confirmed: the country has a structural deficit in its income and current account balance, a negative IIP with external liabilities yielding higher returns than assets, and a leading role of valuation effects as drivers of the evolution of the IIP.

However, it is also important to highlight Mexico's specificities regarding its external sector. As discussed in section 1.2, beyond the expected deficit in the income balance, the country has a trade balance in deficit due to its pattern of productive external integration, led by export platforms operated by transnational corporations. Even more intriguing is the key role of secondary income in boosting the current account balance, acting as a buffer. Secondary income is mainly associated with remittances sent by Mexican workers located in the US to their families in Mexico, thereby representing an external contribution of these citizens to their home country economy even when working abroad.

Summing up, the IIP was marked by an increase in external assets and liabilities over the period, while their compositional structure remained broadly unchanged. On one hand, external assets were mainly formed by direct investment and reserve assets; on the other hand, external liabilities had direct and portfolio investment as protagonists. Through the years, these stocks evolved with a significant influence of valuation effects (NHG), that is, a non-negligible share of the fluctuations in the value of these positions were fostered by changes in the value of these stocks themselves.

Hence, in order to provide a sharp analysis of external vulnerability in the current context, it is necessary to emphasize the interplay between stocks and flows, as well as the distinct and

embedded yet subordinated features of external integration nowadays. As discussed in the last section, the circular relationship between stocks and flows expresses a permanent mechanism of surplus transfer from the Global South to advanced economies, by perpetuating the dependence on external finance to balance the current account, and thus generating future financial services to pay these commitments. Therefore, the central point here is not, by far, the old foreign exchange constraint, but the implications engendered by these external stocks and its flows for national macroeconomic policy and ideas, given the potential adverse effects of exchange rates fluctuations and "sudden non-inflows" in foreign capital to adjust future and expected current account deficits.

Finally, this paper is situated within a broader research agenda on Latin America's external vulnerability, in which it is crucial to develop a theoretical framework emphasizing the interplay between external stocks and flows as well as its dynamics and implications for the domestic economy. Further discussions regarding these implications, such as the exchange rate volatility and the reduced macroeconomic policy autonomy, remains a fertile area for future research.

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