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# Rise and Fall of Mexican Super Peso: Heterodox Perspective *versus* Orthodoxy

**by**

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**ABSTRACT**

This working paper contrasts the neo-Keynesian and post-Keynesian theories of monetary policy for an open economy, highlighting the irrelevance of the orthodox theory and the explanatory capacity of heterodoxy for an emerging economy such as Mexico. It focuses on the role of the central bank and the case of the Mexican currency during the economic recovery after the Great Lockout. In the first section, we criticize two proposals of the 3-Equation New-Keynesian model, concluding that, implicitly, both models reaffirm the extreme neutrality of money and the exchange rate in both the short and the long runs. In contrast, we analyze the post-Keynesian exchange rate model proposed by John T. Harvey (2009). In addition, we rely on the fundamentals of the heterodox school of thought such as the financial instability hypothesis of Hyman Minsky (1994) and the relevance of capital flows for the determination of the exchange rate and its implications for economic growth and prices by Jan Kregel (2008). Finally, the erratic behavior of the excessive appreciation of the Mexican Super Peso against the dollar after the recovery of the COVID-19 crisis and in the context of global risk is presented.

**KEYWORDS:** Monetary Policy, New Keynesian Economics, post-Keynesian Economics, Foreign Exchange Rate, Mexico

**JEL CLASSIFICATIONS**: E31, E52, E10, E12, F31

## INTRODUCTION

In an international context in which the US dollar is the most hierarchically relevant global currency—in terms of its presence in international trade between different countries with the same level of wealth, capital flows, and market power in the determination of international asset prices—Mexico is a country that has been dragged down by globalization, implying an abrupt opening of its international trade after the 1980s and more officially in the 1990s. Its proximity to the US and Canada makes it prone to the need to adapt and follow the global economic leaders, while its interrelation with the dollar and the US represents one of its weak points and determinants of internal growth, economic welfare, and price stability. Surprisingly, during the second part of 2023, an unprecedented phenomenon occurred in Mexico's foreign exchange market: the Mexican Super Peso has been object of an atypical event that gives the currency its name at the excessive appreciation of the exchange rate of Mexican currency vis-à-vis the dollar, during the economic recovery post COVID-19 crisis. In fact, during periods of crisis, reality escapes to theory.

To understand this phenomenon, this paper represents the reflection results among the dominant exchange rate theories that serve as the straitjacket through which inflation-targeting countries must sift. We present a critical comparative analysis of the role of the exchange rate in economic theory, from the orthodox position of the 3-Equation New Keynesian Model and the heterodox post-Keynesian theory of exchange rate. This document is a fragment of a research agenda born out of a curiosity to study the exchange rate theories to understand and explain the relevance of the inherent contradictions to which policymakers are evidently exposed in their behavior.

The contrast between the limitations of the dominant theories makes it more relevant than ever to retake the post-Keynesian proposals that could lead us to a better guideline proposal for the teaching of heterodox macroeconomics. In order to defenestrate the indoctrination to which students of open macroeconomics are subjected, we present a heterodox post-Keynesian introductory model that takes up the fundamental pedagogical ideas for understanding reality and focuses on the relevance of the exchange rate and its most important real determinants.

The first section of this working paper is theoretical and explores the arguments and contrast between orthodox and heterodox exchange rate theories, more focused on the analysis for the post-Keynesian perspective of the exchange rate, in which a simple model is presented that can be used for courses in heterodox macroeconomics, which concludes that the exchange rate should not be fully understood by the trade balance, but by various factors outside the orthodox theory.

The second section presents the phenomenon of the Mexican Super Peso, after the post-COVID-19 economic recovery. Rhetorically, we define "super" as the huge appreciation of the currency, as a reversal in the long-term trend of the Mexican peso before the *coronacrisis*, which has explanations outside theory and finds explanation in the macroeconomic trend of capital flows. In fact, the role of the central bank in Mexico, which serves in the accumulation of international reserves to control exchange rate volatilities, is proof that there is a Fear of Floating and the central bank must lie in its behavior, since the effect of the exchange rate on price stability has been used as a control variable, that is, a hidden second-hand monetary tool of monetary policy. Finally, in the third section, we present some conclusions and proposals for a new understanding and redefinition to understating the role of the exchange rate in emerging economies.

## 1. CONTRASTING THEORIES OF EXCHANGE RATE

The New Monetary Consensus gave birth to the Three Equation Model as the underlying theoretical framework of Inflation Targeting monetary policy and represents the dominant guideline that many countries exercise globally, not only as a guideline for central banks, but also as the dominant teaching program for the new generation of economics students. This model is well named by Galbraith (2008) as a new Frankenstein, because of the eclectic mix of opposing and contradictory theoretical assumptions: “Dr. Bernankenstein's Monster rests on something that Marvin Goodfriend of Carnegie Mellon University calls the ‘new consensus monetary policy’.” Regardless of the strong theoretical contradictions that make the graphical analysis incompatible, it is important to understand that this school is misnamed the New

Keynesians, but if Joan Robinson had time to observe them, she could surely call them the New-New Keynesian bastards.

According to the Annual Report of Exchange Arrangements and Exchange Restrictions published by the IMF (2022), a total of 45 countries based their monetary and exchange rate policy on Inflation Targets and consequently must declare to have a free-floating exchange rate. In fact, Mexico's central bank, Banco de México has been following this framework since 2001, and the Fed since 1994, also. However, free-floating, is false in practice. Although the dominant theory states that the exchange rate is a variable whose value is a result of the foreign exchange market, speculative behavior of the foreign exchange market, capital flows and dirty floating, also known as the Fear of Floating hypothesis, are omitted from the analysis.

Therefore, post-Keynesian exchange rate theory provides the missing analytic elements to cover the holistic understanding of this phenomenon without discarding some of the few useful tools of the orthodox position, because some of the pieces of the neoclassical framework tend to fit together according to Harvey (2019). In the analysis, we adopt the heterodox model of the exchange rate of Harvey (2007), that takes the contributions of Keynes' (1936) proposal, using a more realistic perspective that intends to be externally consistent. Indeed, for a full understanding of the exchange rate theories, is important to rescue the hypothesis of financial instability that Minsky (1975; 1986) developed and that is helpful to understanding the possibility of crises. Finally, the elements such as the Kregel (2008) and Harvey (2008; 2009) capital flows are more important to understanding their relevance to the exchange rate theories.

Monetary policy in recent years has been one of the main a priori instruments that central banks use to influence the economy, with price control as the main goal. Generally, policymakers consider monetary policy to be the active role of policy and tend to omit factors such as fiscal policy, unemployment, and economic growth. The purpose of monetary policy in countries like Mexico, which need to acquire financing from the International Monetary Fund (IMF) by mandate, is to adhere to a legal framework that focuses solely on price stability at all costs, despite the social costs this may imply.

The free-floating exchange rate approach was gradually adopted by Mexico after the painful currency crisis in 1994—the *Tequila Effect.* Following the Mexican crisis, several other currencies experienced similar turmoil, such as in Argentina, Brazil, and during the Asian crisis. All these crises were caused by the unsustainability of the fixed parity regimes and the depletion of international reserves to defend these parities, leading to currency devaluation and the severe effects of economic stagnation and loss of welfare.

In fact, since 2001, Mexico's central bank, Banco de Mexico (BM), has followed the inflation targeting framework, similar to the Fed's approach since 1994. Theoretically, this framework is compatible with the free-floating exchange rate. However, no country truly allows its currency to be entirely determined by market. Although the dominant theory states that the exchange rate is a variable whose value is a result of the foreign exchange market, speculative behavior of the foreign exchange market, capital flows and dirty floating—also known as the Fear of Floating hypothesis (Calvo 2002)[1]—are omitted from the analysis of the orthodox theory. This is because of two assumptions: 1) the theory of uncovered interest rate, and 2) purchasing power parity. These eliminate the possibility of crises in the model, as well as speculative behavior in the foreign exchange market and the risk rate between countries.

Within the orthodoxy, the definition of fiat money indicates that it is the new nominal anchor that the central bank seeks and considers that future inflation will be determined strictly by the expected inflation. This perspective emerged from the struggle between new classical economists and new Keynesian economists, giving rise to the theory of real economic cycles that dictate the rules to be followed by institutions with the monopoly of currency issuance. On the other hand, the heterodox perspective does not accept the same view of money as in the orthodox theory, where the central bank maintains a monopoly on currency issuance. The heterodox view rejects this assumption due to the endogenous nature of money in the economy—particularly emphasizing the creation of money through the credit channel in banks.

However, it is important to recognize that, before expectations were considered as the nominal anchor—as they are today for the inflation targeting approach—the exchange rate, pricing, and

[1] That it has been demonstrated for the case of Mexico after COVID-19 crisis and financial crisis (Montiel 2023).

linkage to the issuance of the dollar, gold specie were then the nominal anchor, (i.e., monetary issuance was strictly limited by the specie, which was the gold standard and the "free" convertibility to the dollar). With the breakdown of the Bretton Woods agreements, the dollar becomes the a priori currency of international trade, and once the gold anchor in monetary emission is eliminated, a new era of unlimited emission and financial innovations of various types of investment assets arises.

This phenomenon is also called by Varoufakis (2011) as the Global Minotaur, an apology of a monster hungry for human lives. Instead, we have the US as the minotaur and tributes are the increasing capital flows. With this new era, the capitalist system shifted to one of more accelerated trade in goods and services, where financial services far outstrip the rest. Likewise, the acceleration of trade processes also came with the creation of new financial instruments that accompanied the rapid growth and apparent "welfare" boom. However, the complexity of these instruments caused the illusion of their being safe investments. As Varoufakis rightly comments, though, as long as there are safer cars, we go faster and we will imminently crash, as in the Global Financial Crisis of 2007–08.

### 1.1. Critique to the New Keynesian Three-Equation Model

The New Keynesian Three Equation Model (NK3EM) was originally proposed by Woodford (2003) as a stochastic, dynamic, and general equilibrium methodology featuring micro foundations and complex mathematical formalization. Among the most understandable presentations made in this regard, this section takes up the proposal by Carlin and Soskice (2015) in which the authors abstract the main mathematical and graphical implications to understand, in a first approach, the logic of the model under the analysis of comparative statics. However, despite the theoretical effort, its representation has some limitations when analyzing the dynamics of the model in open economy, these limitations are discussed in the next section.

According to Wray (2004) the New Macroeconomic Consensus (NMC) is the Fed's framework for action and is based on six fundamental principles: 1) transparency, 2) gradualism, 3) activism, 4) low inflation as the only official objective, 5) surreptitious selection of distributional variables, and 6) the neutral interest rate as the policy instrument to achieve its objectives. Wray

(2004) emphasizes that, as the transcript of the Fed minutes was released to the public, the central bank's behavior adhered faithfully to the NMC guidelines.

However, the NK3EM is the orthodox model taught in new economics education and emphasizes the role of monetary policy in the economy, for its ability to stabilize prices. This goes hand in hand with autonomous central banks governed by a Monetary Rule (MR), serving as a response to the Inflation Targeting Approach (ITA). From the 1990s onwards, according to Woodford (2003, 4), there was a return of monetary rules led by the Bank of England, the Bank of Canada, the Reserve Bank of New Zealand and the Swedish Riksbank. According to Woodford (2003), this inflation-targeting scheme is characterized by the adoption of a quantitative public commitment to inflation and the support of a systemic institutional framework in its decision-making to achieve the inflation target. Together, they result in increased communication from the bank to the public on current conditions and future expectations, through the publication of detailed inflation reports, as well as models for the elaboration of these future forecasts.

Concurring with Woodford (2003, 4–6), these efforts are oriented toward the search for price stability, since hyperinflationary processes provoke substantial distortions of relative prices in the economy, and consequently generate uncertainty for agents' decision-making in production and employment, as well as in the sectoral compositions of economic activity. In contrast, under a scenario of low and stable inflation, long-term sustainable economic growth can be guaranteed and thus can ensure that the economy oscillates around its optimal levels of output and employment.

The British authors Carlin and Soskice (2015) present an extended analysis for open macroeconomics, designed for modern, developed economies. However, their analysis represents a starting point tool for understanding the dynamics and interrelationships between fundamentals because it analyzes the case of a small economy with no influence on the world interest rate. Simplification is an imperative need in economic theory. However, in the case of Mexico, which is a developing economy unlike the model, it is small because it has no effect on international prices.

This model is immersed in the orthodox or mainstream approach of modern macroeconomic theory, as it belongs to the New Neoclassical Synthesis, or Neo-Wicksellian, so called by Woodford (2003), as it incorporates natural variables such as output, interest rate and natural unemployment. Likewise, this approach represents the fusion of the main theoretical aspects of two major schools of modern macroeconomics: New Classical Economics (NEC) and New Keynesian Economics (NEK), schools that led to the New Macroeconomic Consensus (NMC).

The NMC is the theoretical framework of the "inflation targeting" and is composed of three fundamental equations: the Investment Saving (IS), Aggregate Demand (AD) curves, the Accelerationist Phillips Curve (APC) and the Monetary Rule curve (MR), which embodies the optimal reaction of modern central banks because of the minimization of the central bank's loss function, to which the uncovered interest rate condition (UIP) is incorporated.[2]

In addition, it is essential to clarify that, in open macroeconomics, the role of the exchange rate is present as one of the transmission and stabilization mechanisms, based on interest rate movements. The two main channels of monetary policy are: 1) the impact of the interest rate on the AD, 2) the impact of the interest rate on the exchange rate and Aggregate Supply (AS).

With respect to the exchange rate, it derives from the dynamics of the central bank's MR in response to deviations in its inflation targets, there are effects on yields within the asset market, that will be presented in the next section with Harvey's (2008) proposal and based on the overshooting Dornbusch (1976) model. Therefore, roughly speaking, capital inflows and outflows are generated that create disturbances in the exchange rate (appreciations or depreciations) and therefore there are results in the prices of intermediate, capital, and final goods; consequently, they are translated as inflationary effects.

This is one of the elements attributed to economies highly dependent on imported goods, as is the case of the Mexican economy, with the presence of factors crucial for the analysis such as global risk, the speculative motive of the exchange rate, the economic relationship between the US and the Mexican economy.

[2] Uncovered Interest Parity (Carlin and Soskice 2015, 310).

On the other hand, capital outflows cause exchange rate depreciations and thus inflationary shocks, which lead to an inflationary-contractionary spiral, as the central bank will seek to reduce inflation by raising the interest rate (since it is the central bank's a priori instrument). A contractionary monetary policy is an economicus corollary, it reduces productive investment decisions and therefore the AD, which is a pro-cyclical policy because it deepens economic contractions or recessions. This is a highly contested element of current monetary policy, due to its inability to recognize the nature of shocks (supply or demand) to react to them, as there is only the interest rate as the main operational instrument of the central bank.

Is relevant to mention that, in a small open economy, with free capital mobility, the behavior of the exchange rate will obey the international interest rate arbitrage equation, which is expressed by the following equation:

$$i = i^* + \frac{E_{+1} - E}{E} \qquad (1)$$

Where, the domestic interest rate $i$, must be equal to the international interest rate $i^*$, plus the future variation (depreciation or appreciation) of the nominal exchange rate. According to the hypothesis of free capital mobility, the rate differentials will be sufficient to equalize the returns of local and foreign assets. Based on this equation, both appreciation and depreciation processes of the short-term exchange rate, associated with a domestic monetary policy, can be explained.

On the one hand, in the face of an expansionary policy, which reduces the domestic interest rate, this policy leads to a depreciation of the local currency with short-term real effects, since the opening of an interest rate differential that makes the domestic rate of local assets less attractive generates capital outflows that induce exchange rate depreciations, and a depreciation of the exchange rate, in short-term Keynesian conditions (with a positively sloping aggregate supply curve).

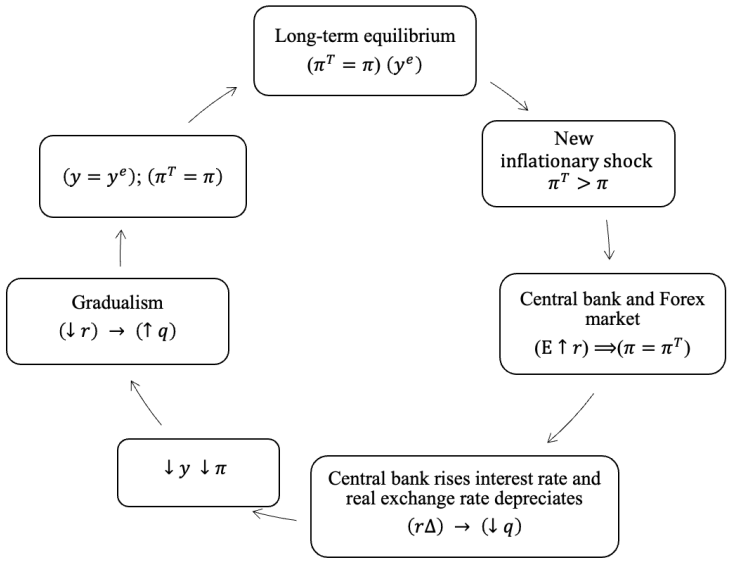
This generates excess aggregate demand which translates into an inflationary period, if the process is not controlled, this feeds an inflationary-contractionary spiral, as the central bank will

try to reduce inflation by raising the interest rate. On the contrary, a contractionary monetary policy is a corollary that seeks to reduce productive investment decisions and therefore aggregate demand. It is a policy aimed at counteracting the overheating of the economy that generates inflationary pressures and generates a process of exchange rate appreciation that translates into inflationary pressures due to the high imported component of domestic goods.

This is a highly questioned element of the current monetary policy, due to its inability to recognize the nature of the shocks (supply or demand) to react to them, since there is only the interest rate as the central bank's main operating instrument. In addition to the above, one of the main differences between the closed and open economy is the dynamic adjustment.

Unlike the closed economy, where the economy adjusted to equilibrium along the IS curve, in this case, the central bank will adjust along the new interest rate–exchange rate curve, which is called the RX curve. The dynamic adjustment is presented in the following circular flow diagram.

**Figure 1. Central Bank Response to An Inflationary Shock**




**Source**: the authors

Fitting to the diagram, an inflationary shock under the IT shifts the Phillips curve, and the bank must prioritize the return of inflation to its target. For this the bank will raise the interest rate as it

seeks a policy to contract productive activity below the equilibrium level and unemployment above the equilibrium level. The dynamic interest rate adjustment procedure is described below.

As we can observe, the fear of inflationary shocks is the root of the gradualist movements on the interest rate. The graphical fits in the model set out by the authors is different if we analyze an open economy, so it is the reinvention of the IS–LM framework, with several additional steps in the process. However, the underlying logic is subordinated to the IS curve where there will be negative effects with the interest rate and positive effects with a depreciation of the real exchange rate. It confirms that in the NMC only the monetary policy by itself is capable of stabilizing the prices and the economy. The Fed is ignoring all the unemployment problems until the instability of the financial system is undeniable (Galbraith 2008). This a myopic vision of the economic system, that denies and limits itself from holistically understanding the set of real phenomena and the possibilities of crises.

As we mentioned before, the exchange rate role in the model is annulated from the analysis in the short run. Contrarily, to add Keynesian characteristics, the model assumes the existence of an imperfectly competitive labor market, i.e., one that incorporates frictions that lead to slowly adjusting prices, within which some of the elements expose the parameter price rigidities. Additionally, in the adjustment dynamics of the open economy, the teaching model must add an additional curve called Exchange Rate Unemployment (ERU), which represents the combinations between real exchange rate and output in which the real wage is equal to nominal wages (under imperfect competition). Therefore, along the whole ERU curve, inflation is constant, in such a way that it is defined as:

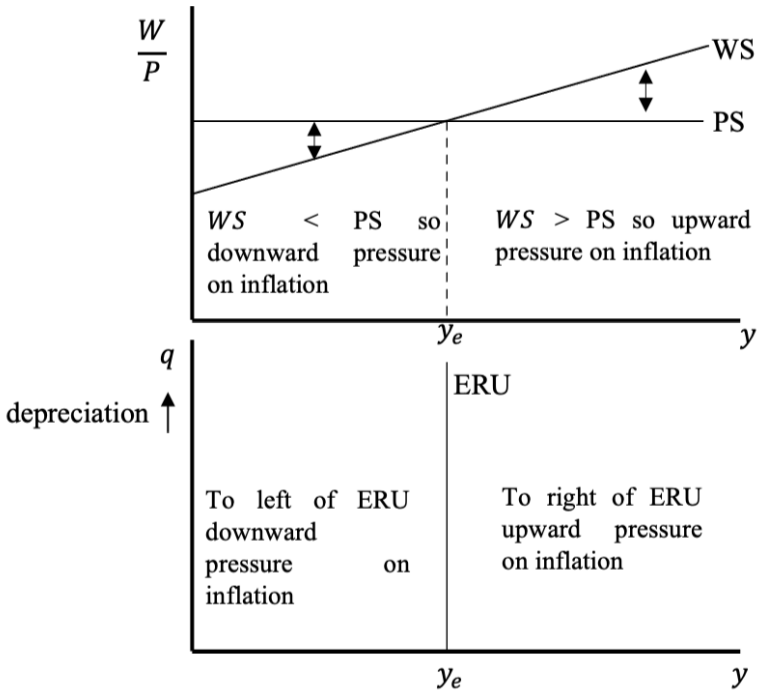
$$y = y_e(z^w, z^p) \qquad (2)$$

Where $z^w$, reflects the set of supply-side factors that shift the wage-setting curve WS; these include unions, staggered wage-setting, and government unemployment benefits.[3] On the other hand, $z^p$ represents the factors that shift the price-setting curve (PS) such as taxes, labor productivity and the degree of product market competition. Therefore, the justification is the

[3] For more details, see Carlin and Soskice (2015, Vol. II).

ERU curve, or the supply-side perspective that means the equilibrium in the labor market, wage setting and price setting converges to the real wage, the employment level and unemployment are determined in this supply side of the model. This is how the exchange rate will be pre-determined in the long run as a structural factor. The ERU curve is presented in the Figure 2.

**Figure 2. Exchange Rate Unemployment and Supply Side**




**Source**: the authors

Roughly speaking, the curve determines the price-determining real wage, and when both curves intersect WS and PS, it gives rise to the ERU curve—all combinations of the real exchange rate and the level of output at which the supply side is in equilibrium once the equilibrium in the imperfectly competitive labor market is considered. It is shown in Figure 2 that on the left side of the $y_e$ point there are deflationary pressures when wage setting is minor than price setting curve ($WS < PS$) and on the right side, therefore in the contrary situation, when the WS curve is bigger than price setting ($WS > PS$) there are upward pressures on inflation. The same analysis is presented when looking at the ERU curve.

Considering the UIP condition, the interest rate should return to the level of the overall interest rate to avoid depreciation pressures on the exchange rate and to bring the economy to its medium-term equilibrium. Therefore, the movements in both r and q will be a correlation of forces, opposing each other and causing output to rise progressively from $y_1$ to $y_e$, while inflation will return to its target from $\pi_2$ to $\pi^T$. This adjustment process ends when the economy has returned to its equilibrium level at $Z(y_e, \pi^T, \bar{q})$.

Despite the fact that the authors are analyzing the open economy, the exchange rate depends on structural long-term factors on the supply side of the economy, i.e., the labor market. In addition, the central bank is typified as the optimizing agent of its monetary policy objectives, as it is unwilling to deviate from its monetary policy objectives, using the Monetary Rule Curve to close the inflation and output gaps, stabilizing the economy around its medium-term equilibrium. In addition, the need to incorporate the above assumptions into the model makes it impossible to analyze the possibility of dirty floats during short periods of high exchange rate volatility, economic growth, and the effects on the price level caused by such exchange rate volatility. In addition, for the short run, those models assumed that exchange rate is entirely determined by the current account flows of commerce, but that's a topic we will discuss in the next section.

For now, to complement and contrast the criticism to the orthodox models, we will discuss the NK3EM in a general equilibrium and with micro-foundations, but with the absence of a graphical analysis. We move to the model proposed by the authors Clarida, Galí, and Gertler (2001), who—alongside Woodford (2003)—are considered some of the most orthodox in this field. Their model, 'Optimal Monetary Policy for Open Economies' is frequently taught in the New Macroeconomic Consensus, as simplified by Carlin and Soskice (2015). They begin with optimal control theory modelling. However, in this specific model, the authors formulate a micro-founded general equilibrium model for closed economies. They then extend the analysis to include a small open economy, emphasizing that the exchange rate should be included as a key variable in the design of monetary policy.

Although this theoretical methodology is a fallacy of composition, the authors resort to an extreme simplification of the exchange rate in the analysis of the open macroeconomy, which removes the active role of the exchange rate in monetary policy from the model.

They consider that the optimal feedback rule is the same as for a closed economy, however, the aggressiveness with which the central bank responds to inflationary shocks will be directly proportional to the degree of openness. They do consider the difference between domestic and internal inflation, measured by the consumer price index (CPI). Moreover, given that they considered the presence of the pass-through effect of the exchange rate, the central bank should opt for an inflation target and allow the exchange rate to float despite exchange rate volatilities affecting the CPI. This last element is questionable, since, although in theory, money is part of the analysis, in fact the Uncovered Parity of Interest rate (UPI), condition and the long-run determination of the exchange rate inherently demonstrate that money is neutral in the short and long runs.

### 1.2. The Open Economy Problem Controversy

The open economy analysis presents a problem and controversial shifts in framework for the authors. They had to simplify the model to an extreme neoclassical, where all prices are flexible, and there are no distortions in the labor market, meaning the parameters for marginal cost and the wage margin, which captures labor frictions are zero ($mc = 0$ and $\mu_t^w = 0$). Unlike the simplified model by Carlin and Soskice (2015) where they incorporate the Phillips curve with the retrospective inflation dynamics, this model incorporates the new Phillips curve (NPC) that incorporates the marginal cost as the economic activity indicator par excellence.

It is important to highlight that, among the main differences between the traditional Phillips curve and the NPC are:

- The pricing behavior is the product of an optimization process of these monopolistically competitive firms that are subject to adjustment and pricing constraints.

- In the traditional Phillips curve, agents were thought to form their inflation expectations based on adaptive expectations, retrospectively. In contrast, for the NPC, rational expectations are incorporated and, therefore, it is a purely forward-looking phenomenon.
- Derived from the optimization process, the relevant indicator to evaluate economic activity is represented by real marginal costs, which econometrically result from the estimation of structural parameters, based on the Generalized Method of Moments.

In addition to these aspects, the authors state that, for the closed economy, the NPC is identical to that of the open macroeconomy and is also interpreted as the short-run aggregate-supply curve (AS) that relates domestic inflation to the output gap and a cost-push shock.

Moreover, output is at its natural level once the above assumption is applied. Additionally, the model is isomorphic to the closed economy. As domestic real rate continues rising, aggregate demand and thus the current output gap is reduced, because agents decide to sacrifice intertemporally present consumption to save or invest in bonds. Also, a high real domestic interest rate will lead to an appreciation of the terms of trade, thereby creating an expenditure-switching effect on demand that is captured by the parameter $w$, measured in the interest rate sensitivity by the output gap.

The main theoretical implication of the Clarida, Galí, and Gertler (2001) model is that the monetary policy problem is almost identical for the closed and the open economies, as the rules underlying the movements of the nominal interest rate $r_t$ and the paths of inflation and the output gap follow the same central bank optimization logic. And, surprisingly, the extreme simplification of the model for the open economy means that optimal policy has no exchange rate implications in terms-of-trade, since it is conditional on an output gap path that depends positively on output and negatively on the national interest rate and the terms-of-trade that emerges frictionless in the economy and represents the optimal terms-of-trade path. On the other hand, from the open economy perspective, the effect on the change in expenditure on demand will cause net exports to move in a direction that amplifies the impact and considers that the elasticity of substitution of local and foreign goods.

The two models that have been criticized have great similarity in their theoretical results, however they also present some differences. In the first instance, the NKM3E equations are essentially an IS curve, new Phillips curve and old Phillips curve, Monetary Rule, or Taylor Rule; Carlin and Soskice (2015) use the Phillips curve with adaptive expectations, while Clarida et. al. (2001) uses the New Phillips curve which essentially incorporates the rational expectations hypothesis and is therefore purely forward-looking.

Similarly, both models conclude that monetary policy simplifies to a minimization of the central bank's loss function that tries to reduce the squared deviations between the inflation and output gaps. Consequently, both models capture the central ideas of the NMC that emphasize the importance of central bank credibility in the economy to combat inflation. Furthermore, the role of the exchange rate in both models is associated with long-term structural factors of the economy.

Moreover, the role of the exchange rate in both models is associated with long-run structural factors in the economy. First for Carlin and Soskice (2015), the imperfectly competitive labor market delineates the long-run equilibrium level of the real exchange rate, which will not have inflationary effects, as it is delineated as an aggregate supply factor. In contrast, in the case of the Clarida et al. (2001) model, the terms of trade are positively associated with the domestic output gap and translate into the real terms of trade that correspond to the long-run equilibrium in which, by definition, the economy cancels out all kinds of frictions in the goods and labor markets, predetermined in the short run—such as staggered wage contracts and the role of trade unions that cause nominal frictions.

The main theoretical consequence derived from these models, besides the fact that their construction is a fallacy of composition, lies in the nullification of the transmission effects of the exchange rate in the short term seen as a monetary policy variable. This represents a theoretical limitation and also signifies the extreme neutrality of money, given the strong link between the terms of trade and the degree of openness of emerging economies, as well as the inflationary effects caused by exchange rate depreciations seen as overshooting. Additionally, in all the type

of models, PPP, UIP, must be assumed to the analysis, that's why there is no possibility for the disequilibrium in the current account (capital and trade balance).

Furthermore, in practice, free floating is a simplifying assumption that is not fulfilled, as even in countries with inflation-targeting monetary policy schemes, there is a fear of floating, and more interestingly, the recent phenomena of the Mexican Super Peso, and the financial fragility that we will analyze in the next sections, with the help of the post-Keynesian theoretical framework.

## 2. POST-KEYNESIAN EXCHANGE RATE THEORY

To teach post-Keynesian exchange rate theory, we can use Harvey's (2009) proposal. In his approach, Harvey rescues the effective demand principal diagram from chapter 3 of Keynes' (1936) *General Theory*, employing the Z-D scheme with endogenous money. The foreign exchange market is driven by portfolio capital flows, unlike the previous model, in this model, a tendency toward full employment or trade equilibrium is not assumed, and the central role of income effects in trade fluctuations is emphasized.

To make an analysis of the post-Keynesian diagram of the Z-D scheme for open macroeconomics, Harvey (2009) takes up the model of Dornbusch (1976) which consisted of four markets: IS–LM, bonds, and capital flows markets, where they took the assumptions of uncovered interest rate parity, purchasing power parity and a monetarist style aggregate supply and demand model. According to Harvey, the first economist that tried to explain the volatilities of the exchange rate was Dornbusch (1976) in his *Overshooting* model, that model is interesting and could be used to understand the post-Keynesian perspective, particularly the Harvey (2009; 2019) model. In accordance with Harvey (2008; 2019), it is not the theory of international trade but the flow of capital that is the driving force behind the currency fluctuations that give the exchange rate its value.

The main difference from the post-Keynesian theory of the exchange rate is that the determination of the exchange rate is based on capital flows and not on the flow of international

trade, as orthodox theory dictates. In this case, the most relevant authors for this section are Harvey (2008; 2019), Kregel (2008) and Minsky (1994), since all allude to factors absent in the orthodox theory, and that nevertheless represent the main source of explanation of exchange rate volatilities and determinations of the exchange rate price.

Orthodox models analyze the entire determination of the exchange rate in the short run to current account factors and not to the capital account, as posited by post-Keynesian theory. The paradigm shift in post-Keynesian theory will then determine a new holistic framework of analysis for the nature of the exchange rate, as a purely speculative variable resulting from market psychology. The role of the central bank resembles that of a shipwrecked ship sailing against the tide trying to contain exchange rate volatilities that result from the capital market and not from the exchange of goods between countries.

The post-Keynesian framework considers a world with endogenous money, constant trade imbalances, and agents whose preferences and worldviews are a function of social influences. Also, portfolio and capital flows are neither short nor long term, accommodative liabilities, but a dominant force in determining the exchange rate, hence trade flows play a secondary role in determining currency prices. Likewise, the orthodox considers that agents have complete information that can predict exchange rate expectations based on full knowledge of the economic system information, however, for the post-Keynesian theory, exchange rate determination, according to Harvey (2019), is almost entirely a function of the flow of capital that dominates the international economy.

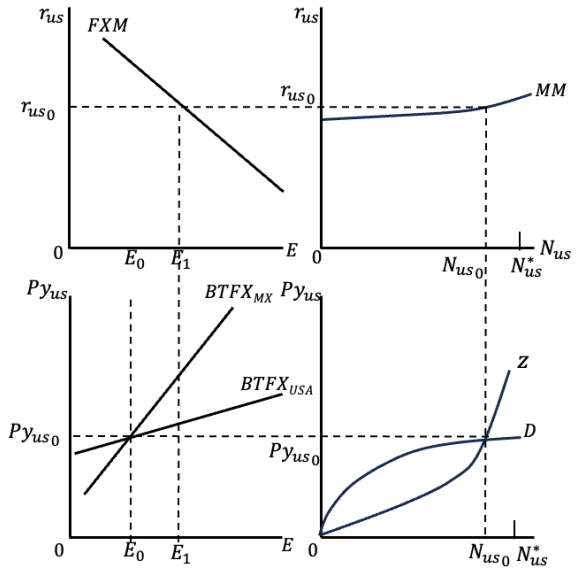
In addition, as we analyzed in the previous section, all orthodox theory is governed by obsolete and unrealistic assumptions, UIP, and PPP, which do not allow for the existence of crises congruent with the real world, hence its inability to explain from these assumptions which are not corroborated in practice in either the long or the short term.

As we can note, the Figure 3 shows that when, for example, economic activity increases and with it the demand for money, the supply of money may automatically follow as new loans are made. When the economy goes into recession and the demand for money falls, the supply follows as agents do and do not repay loans. Thus, although the monetary base from which banks extend

credit is under the control of the central bank, the money created by bank lending fluctuates endogenously.

In Dornbusch's (1976) model, four markets are graphically analyzed: IS–LM, uncovered interest rate parity, purchasing power parity and a monetarist-style aggregate supply and demand model, which were linked by market through each axis. For teaching the post-Keynesian Exchange Rate Theory, we can use the next graphical analysis. It presents the macroeconomic part by Keynes' Z-D diagram, current account (BTFX), money supply (MM) with endogenous money and exchange rate determination (FXM). Curve D represents nominal sales when N workers are employed and is called the "Aggregate Demand Function" (Keynes 1964, 25), where the slope is the result of the consumption function. This is based on the assumption that, as income increases due to the employment of more workers, so does consumption (measured in nominal prices of production, *Py*), but at a decreasing rate, hence the positive but decreasing slope.

**Figure 3: Post-Keynesian Exchange Rate Theory**




**Source:** Harvey (2009)

The vertical intersection depends on aggregate demand unrelated to consumption (in other words, spending which is not a direct function of N). The Z curve is the "aggregate supply price

of output derived from the employment of N men" (Keynes 1964, 25), or the income that firms must expect to earn before they are willing to hire a given number of workers. On the axis, the corresponding *Py* given by *Z* is the level of sales that entrepreneurs should expect if they want to hire this *N* (i.e., *Py* is the level of sales which would maximize profits given the aggregate demand generated by employing *N* workers). The slope of *Z* becomes steeper as marginal returns decrease as more workers are added to fixed capital. Each worker must receive the same wage, but the additional workers produce less and less. Consequently, sales must increase at an increasing rate if the increase in the number of employees is to be profitable. If we consider *Z* and *D* together, their intersection is Keynes' "effective demand" point.

Anywhere to the right, the resulting point *Z* would be larger than the corresponding point *D*. Since the former produces, *Py* firms should be satisfied with the current level of employment, but it is the latter that will prevail, as employers will be disillusioned and will lay off workers (bringing us back to the left). At the same time, if firms choose an *N* to the left of the actual demand point, they will face excess demand for their products; they will adapt to the next period by hiring more workers (moving *N* to the right).

Like what has been analyzed, in this model, as interest rates increase, the cost of financing investment increases and thus the rate of capital formation decreases. However, when firms expect a higher rate of return on investment, they tend to invest more. Therefore, as interest rates increase, the cost of financing investment increases and thus the rate of capital formation decreases. The current account is illustrated in Figure 3 below, where the horizontal axis shows the exchange rate while the vertical axis is nominal income. BTFX is the geometric locus of points showing the combinations of *Pyus* and the exchange rate, *E* (measured as $/FX), that would produce balanced trade for the US. As such, each level of nominal domestic income shows the exchange rate that would have to prevail (ceteris paribus) for exports to be exactly equal to imports (this is described as the balanced trade exchange rate, or BTFX).

The following equations point out that an increase in the $/FX exchange rate produces an improvement in the US trade balance, while an increase in P&L causes a deterioration. That is, as the latter increases (causing a deterioration in the trade balance), the former must do the same

(to create an offsetting improvement in the trade balance). Hence the positive slope of BTFX, hence points to the right of BTFX are consistent with a trade surplus (and capital account deficit) for the US, while points to the left indicate deficit (and capital surplus). When the BTFX diagram is flatter, it means that trade flows have a relatively larger response to changes in *Py* than the exchange rate (since a very large change in the latter is required to compensate for a given change in the former).

$$X_{US} = \underset{+}{f\left(\$/_{FX}\right)} \qquad (3)$$

$$M_{US} = \underset{- \quad +}{f\left(\$/_{FX}, \$/_{FX}\right)} \qquad (4)$$

We can note that the Mexican economy should have a less flat BTFX curve, because the trade flows have less impact on product and more impact on exchange rate. The reason is that the aggregate value of home country goods and services become more competitive in a way that is not reflected in *E* or *Pus*. Also, changes in net exports can shift *D*, meaning that as it moves to the right or down in the BTFX diagram, the current account improves and *D* shifts up; and as it moves to the left or up, *D* shifts down.

In the MM diagram, the domestic financial sector is presented with the endogenous money view of the financial system, where the MM curve shows all points where money supply equals money demand ($M_d$). Because we have a fractional reserve banking system, money is created both exogenously (high-powered central bank money, called base money) and endogenously (as banks extend credit). Therefore, even without a change in the former, the money supply can fluctuate over a very considerable range through the money multiplier and changes in velocity.

Relative interest rates are used as omnipotent determinants of currency price movements. The function for the exchange rate part of the model is called FXM. Its negative slope results from the fact that an increase in US interest rates leads to an appreciation of the dollar (fall in E or \$/FX) as agents buy dollars to obtain interest-bearing US assets. A rise in FXM does the opposite as agents substitute foreign bonds for US bonds, shifting FXM to the right. Finally, when agents

revise upward or $(\$/FX)^e$, a fall in the dollar occurs (i.e., a rightward shift in FXM and a rise in E or $/FX).

On the other hand, if we revisit Minsky's theory of an endogenous increase in financial fragility—based on the idea that as economic expansion continues, entrepreneurs and lenders are willing to engage in activities where safety margins are weaker—we will understand that if an economic expansion continues, entrepreneurs and lenders are willing to engage in activities with weaker safety margins— we will understand the increasing risk. Essentially, in a prolonged economic expansion, financiers and lenders will take on more risky ventures, leading an economy initially dominated by firms with strong financing profiles to progressively transform into one with weaker margins of safety (Kregel 2006). Therefore, following this hypothesis, exchange rate determination in currency markets is a land of speculative behavior, where all agents are non-rational and follow the herd movements along the market.

Finally, Minsky taught that economic stability itself breeds instability. The logic is quite simple: seemingly stable times encourage banks and other players to take exceptional risks. 1) Hedge finance becomes speculative and then Ponzi schemes occur, the system falls apart and must be rebuilt, governments are not the only source of instability, and 2) markets, by and large, are much more unstable, much more destabilizing.

This fact is made clear, in history, by the fundamental fact that market instability long predates the growth of government in the New Deal years and beyond, or even the existence of central banking. Therefore, as we will observe in the next section, the central bank is trying to swim against the tide, making great efforts to control exchange rate volatility, and thus contradicting its institutional mandate of non-intervention in it.

## 3. MEXICAN SUPER PESO

In the case of Mexico, the balance of payments crises, as studied by Neo-Keynesian authors such as Paul Krugman (1979), show that these reserves acted as a support for central banks to manage

indebtedness due to future uncertainties and to defend the existing fixed exchange rate. Although the Mexican economy has suffered many painful exchange rate crises, other countries in Latin America and the world have also faced crises. The 1994 balance-of-payments crisis, also known as the Tequila Mistake, demonstrated that emerging and underdeveloped countries with a strong dependence on the US economy cannot warn the market about the possibility of capital flight that would de facto eliminate all existing reserves.

More recently, during the COVID-19 crisis, the Mexican peso suffered several aggressive periods of depreciation, which overreacted simply because of market uncertainty and global economic crises. Comparing this period with the Financial Crisis of 2008–09, the latter crisis was surprisingly larger in real terms: economic recession (–8.7 percent in 2020, *versus* –6.3 percent in 2009) and high levels of unemployment, in addition to the chilling loss of 330,000 human lives.

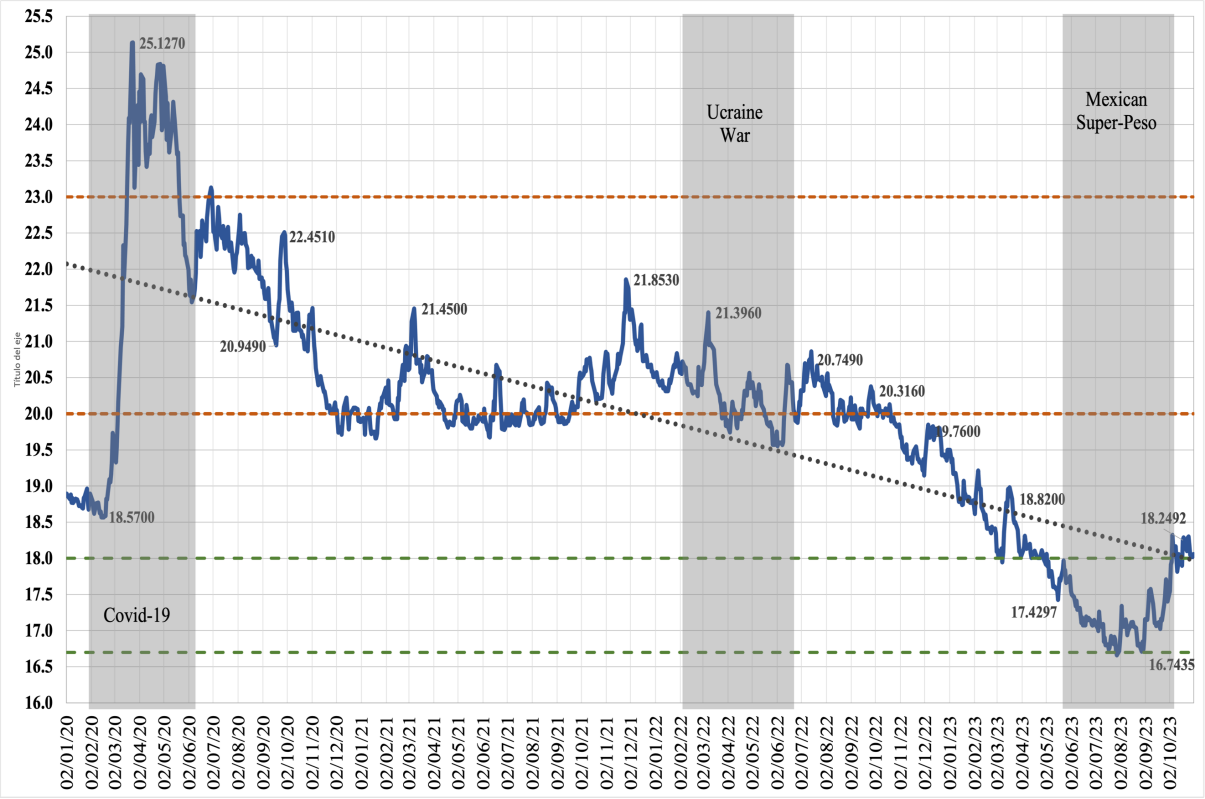
Conversely, overcoming the pandemic crisis brought with it a new phenomenon called the Mexican Super Peso. Therefore, the role of the exchange rate in the economy represents one of the hidden factors of the monetary policy that the central bank is using to control exchange rate fluctuations, with international reserves, interest rates. Mexico, during the pandemic crisis and the financial crisis, suffered strong depreciations of its exchange rate.

We can observe in Figure 3, the volatile dynamics of the exchange rate in three periods, the crisis derived from the COVID-19 that implied an overwhelming depreciation of the exchange rate, which subsequently has presented a long-term trend of appreciation, the second half of the year 2023 has particularly represented the scenario of appreciation of the exchange rate that gives its name to the title of this working paper. The dotted line marks the appreciation trend, which contrasts what was observed in previous decades, surpassing the 18 peso barrier. The exchange rate has strengthened against the dollar, however, a result of several factors in addition to the heterodox theory.

In the first case, the pandemic crisis caused the interruption of global supply chains of raw materials, creating bottlenecks that subsequently generated inflationary pressures. Therefore, the

central bank sought to counteract them by controlling the price of the exchange rate. In a global context, the war in Ukraine led to greater world uncertainty that generated a process of exchange rate volatility; however, in 2023, the new signing of the T-MEC, originally NAFTA, led to the interdependence and subordination of Mexico to the US economy. Additionally, the phenomenon of *nearshoring* understood as the relocation of transnational companies to Mexican territory has made the peso the currency of excellence for speculation by means of swallow capital and stockholders' equity.

**Figure 3: Mexican Super Peso and Fear of Floating (2020–23)**



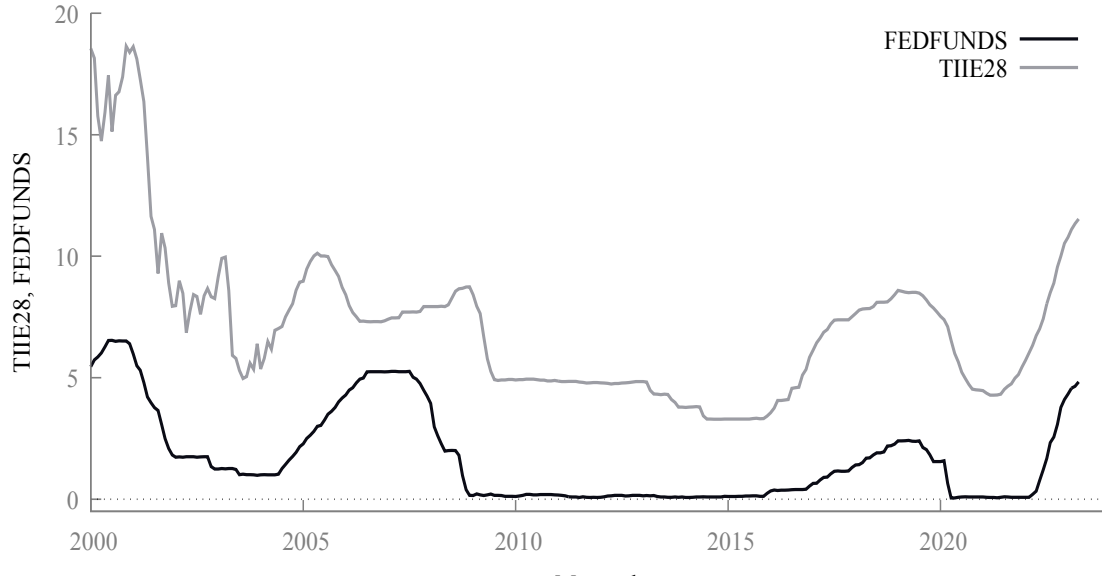

**Source:** Federal Reserve Statistics and Bank of Mexico.

Conventionalist economists explain the Mexican Super Peso thanks to a favorable context for foreign investment and a strong economy this year. The rise of the Super Peso also generates collateral problems as it is already affecting remittances from the US. At the same time, the appreciation of the peso makes Mexican exports more expensive, which affects the country's ability to compete in the global market, especially against Asian products. Mexican annalists have been talking about *Nearshoring* as a favorable context for foreign investments and a strong

economy, but also that it generates collateral problems. The Super Peso is already affecting remittances coming from the US. One weaker USD means that workers send home less money. At the same time the appreciation of the peso makes Mexican exports more expensive, affecting the country's ability to compete in the global market especially against Asian products.

We, on the other hand, consider that the Super Peso represents a reversal in the long-term trend, as before COVID there was a clear long-term trend of exchange rate depreciation. However, with the global context of uncertainty, the central bank has derived in an exhaustive accumulation of reserves, constant interest rate increases to keep open the large gap in the interest rate differential between the Fed, with it, and the *Nearshoring* context.

**Figure 4: Mexico and US Interest Rate Gap (2000–23)**

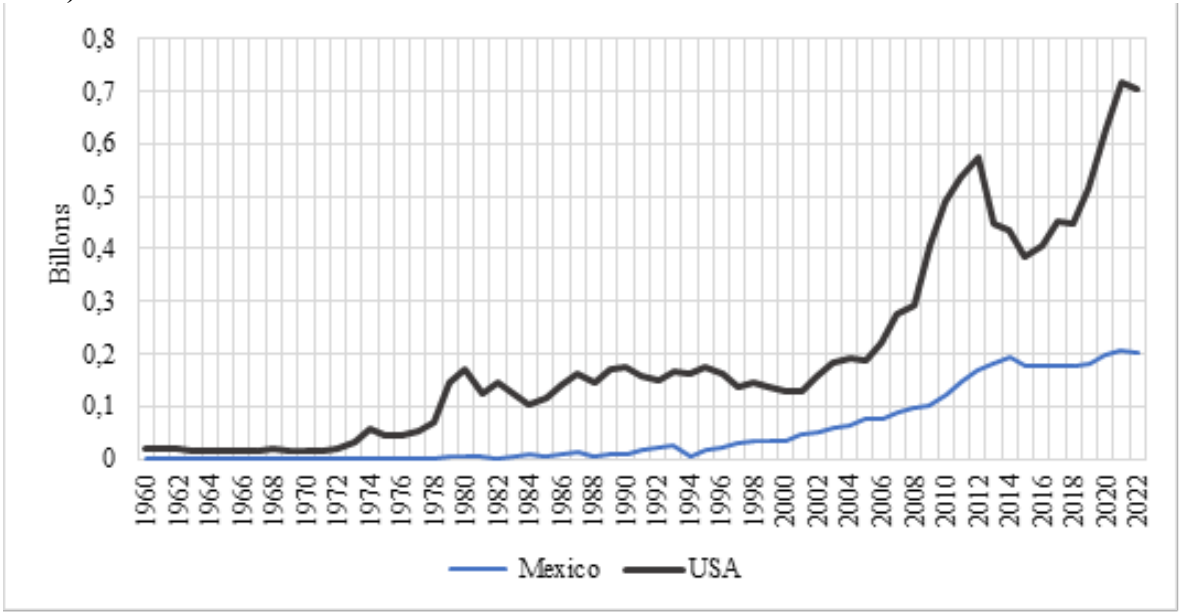



**Source:** Federal Reserve Statistics and Bank of Mexico.

Mexico has been artificially increasing its exchange rate appreciation in the short and long term. However, this is nothing more than a speculative illusion resulting from the peso's facilities as a carry trade and liquidity tool, coupled with a lack of capital controls to which the bank has to adapt in order to participate in the global capital market. Although the peso is one of the most speculated currencies in the foreign exchange market, its appreciation generates a loss of competitiveness in the commodities market and therefore a loss of social welfare in aggregate demand.

As is observed in Figure 5, there was an exponential increase in the amount of reserve accumulation analyzed in dollars. More recently, during the COVID-19 crisis, the Mexican peso currency suffered several aggressive periods of depreciation, which overreacted simply because of market uncertainty and global economic crises. Comparing this period with the Financial Crisis of 2008–09, the latter was surprisingly larger in exchange rate depreciation and reserve accumulation.

**Figure 5. Mexico and US: Total Reserves (excluding gold, USD at current prices) (1960–2022)**




**Source:** Bank of Mexico and Federal Reserve statistics[4];

Consequently, the logic of the free determination of the exchange rate in the market is due to the globalization of financial and capital markets. This creates internal problems for emerging or developing countries like Mexico. Among the OECD countries, Mexico has the highest number of working hours and lowest wage level within the organization. It is the main trading partner for the US, but as we analyzed in the previous section, is not the trade flows that matter, but rather the capital flows are relevant. The financial market is completely dominated by irrational behaviors and market psychology based on collective euphoria, often referred to as 'animal spirits'. Thus, the financial system becomes a space where less reliable and less certain assets are

[4] https://www.banxico.org.mx/apps/gc/reservas-internacionales-graf.html; https://fred.stlouisfed.org/series/TRESEGUSM052N

traded. Consequently, the central bank's efforts to try to control the peso's behavior have been futile, resemble swimming against the tide in a sea of purely speculative capital movements. Since the peso is a carry trade currency —an asset that is easily made liquid due to Mexico's low capital regulation— it is predictable for the central bank would try to control the peso's behavior through the accumulation of reserves and widening the interest rate gap.

Contrary to orthodoxy, we can observe that the Mexican Super Peso is a phenomenon that is composed of several factors, institutional, social, geographic, but that do not represent more than an occasional wave of elements in favor of the whole, the nearshoring, the large gap in the rate differential that has made optimism for long-term domestic assets in domestic bonds more likely. Despite all beliefs, a strong Mexican peso is not necessarily positive, since the cost of industrial products exported by Mexico becomes more expensive, since when exporting in dollars, the dollar buys less and this affects the industry located in the region, together with the lack of skilled labor, the problems of insecurity, foreign direct investments are temporary and the growing behavior of portfolio investment or "swallow capital" that does not create value within the country is propitiated.

In summary, Mexican Super Peso is a result of an incredible amount of resources is currently allocated to control exchange rate volatility, the constant purchase and accumulation of international reserves and the high sensitivity of the central bank in controlling the interest rate to avoid capital outflows, reflect a strong dependence and a neo-mercantilism of the central bank that implies a high social cost that is nothing more than the result of inflation phobia.

### 3.1. Capital Flows and Exchange Rate Post-Keynesian

According to Kregel (2008), after the 1970s, with the opening of the international financial and trade systems, there was a growing magnitude of international capital flows accompanied by new financial innovations, and after the 2000s there was a growing accumulation of international gold reserves held by the US and Mexico. As a mechanism to "safeguard" public finances and cope with speculative attacks, however, in reality the constant movements of capital that affect currencies are de facto manipulated. In addition, Harvey (2008) proposes that, in a world in which capital flows are the root of international finance, the volatility of trade imbalances are an

exception. Financial capital flows are the driving factors of capital account flows which reflect trade imbalances and do not give complete information but rather a small part of it. The post-Keynesian paradigm emphasizes that human beings are social animals, and the objective is the accumulation of wealth.

Hence, the focus of these markets in on power and exploitation. Encouraging business is not the same as encouraging social welfare. According to the post-Keynesian paradigm, human beings are social animals, and the objective is the accumulation of wealth. There exists a subculture in the foreign exchange market where market behavior is not rational, According to the institutionalist vision, there is no tendency towards full employment or certainty, and the financial sector does not respond to the needs of the real sector. Therefore, the financial system is not an epiphenomenon, in a world where the future is unknown and the demand of agents for wealth, services, and assets is insatiable. The market of capital flows is an institution that resurfaces from the unproductive and parasitic speculative capital of capitalism. According to the institutionalist vision, it is governed by "ceremonial" tradition and power (Harvey 2009). The objective is business, accumulation of wealth, power, exploitation controlled by a small, non-democratic minority. Promoting business does not serve to promote welfare.

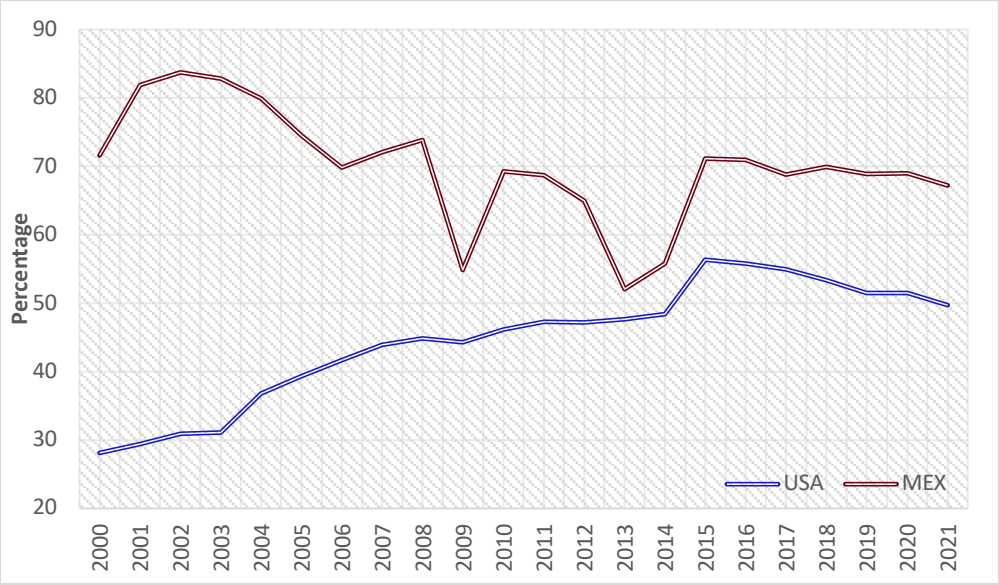
Likewise, currency markets are an institution governed as a subculture with the erroneous idea that they are the best solution to solve social problems. However, this market is governed by irrationality, and contrary to what theory establishes, they do not respond to rationality, much less to the efforts of the central bank to control inflation by increasing the interest rate or accumulating international reserves. This is also seen as a new mercantilism, through the accumulation of gold without any productive aspect since social welfare is sacrificed.

Thus, the financial sector, far from being a solution, is a generator of problems, since most financial crises have real long-term effects that translate into long-term effects on growth and unemployment. Contrary to orthodoxy, movements derived from financial crises are not white noise, and the economic system has memory, so past events also influence long-term ones. According to the post-Keynesian and heterodox view, history matters, the past has real and qualitative impacts on agents' decisions.

In addition to the analysis of the Mexican Super Peso, it is important to take up again that the endogenous money hypothesis we are studying shows the degree of asset accumulation in commercial banks has been gaining relevance in recent times. We can observe the relevance of the concentration of banking assets as a proportion of total commercial banking. Figure 6 shows the evolution of this indicator, as it has been growing throughout the century, after the proposal of the inflation targets, the credit market with private banks has been growing at a steady pace and in Mexico, the power of private banks is greater than in the US.

This shows us the high degree of bank concentration that not only reduces competition in the sector, but also generates other credit problems and ineffectiveness of the interest rate that the Bank of Mexico has in the sector.

**Figure 6: Bank Asset Concentration (2000–21)**

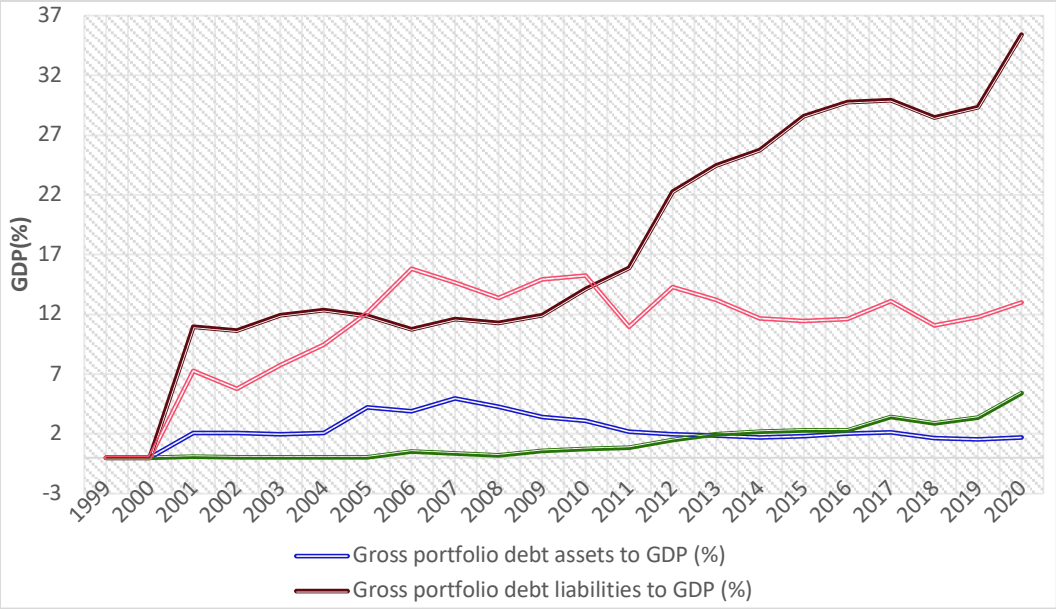



**Source:** Global Financial Development, Institute of International Finance

Figure 7 shows the evolution of gross portfolio debt assets as a proportion of GDP (%), the trend of portfolio assets for the Mexican economy in its different denominations: gross portfolio debt assets, gross portfolio equity assets, gross portfolio debt liabilities, gross portfolio equity liabilities, which include, bonds, debentures, notes, etc., and money market or negotiable debt instruments. According to Minsky's financial instability hypothesis, crises are the inevitable consequence as agents tend to update and overreact to economic signals and their proclivities for

over confidence portfolio capital flows must be reduced and controlled. In such a world, a country like Mexico, an emerging economy, must adapt to the impositions and dragging effect of its financial fragility and low debt sovereignty. Mexico will progressively transform into an economy characterized by speculative financing, which can be pushed more and more easily towards Ponzi financing. It is becoming easier and easier to move toward Ponzi financing.

**Figure 7. Mexico: Gross portfolio assets (1999–2020)**




**Source**: Global Financial Development, Institute of International Finance

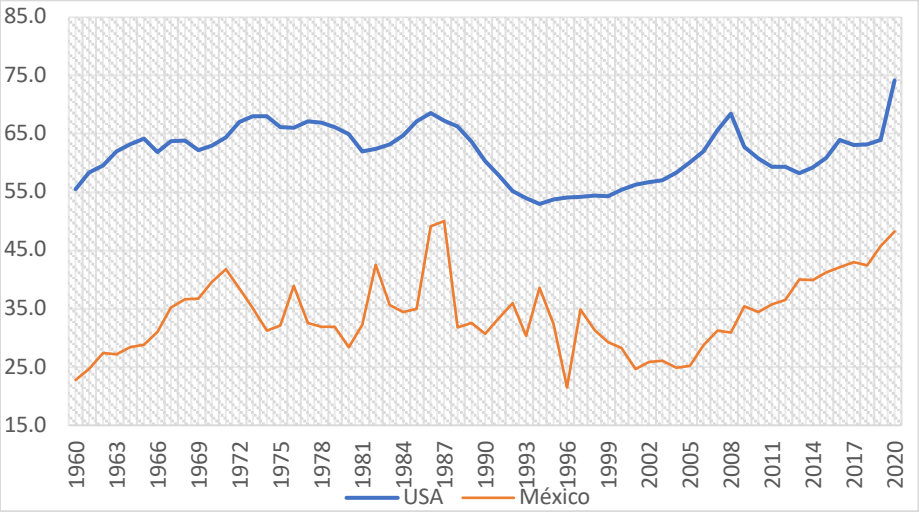
We can observe the relevance of bank asset concentration as a share of total commercial banks. It is detected that equity liabilities have become more relevant in the last decade, representing 35 percent of GDP in 2021, with exponential growth over the last 10 years. These include stocks, shares, and similar documents (such as American Depositary Receipts) that typically denote ownership of shares. Likewise, the gross portfolio debt and capital liabilities are relevant, we can conclude that the last decade has been the exceptional boom period, in line with the behavior of the exchange rate. We must wait for the updating of the data by the Institute of International Finance since the inaccessibility of the data it provides, demonstrates the absence of transparency for economists. Therefore, the increase in liabilities and debt portfolio as a percentage of GDP is proof of the relevance of capital flows, while the central bank's constant resistance to fight other problems rather than inflation, make clear the myopic view of the macroeconomic variables that have been studied, in particular the exchange rate.

The increasing of liabilities and debt portfolio as a share of the GDP is the proof of the relevance of capital flows, meanwhile the constant resistance of the central bank to fight against the volatile depreciation of the exchange rate.

The Mexican Super Peso is a phenomenon caused by several factors, including the pandemic crisis, the economic recovery, the war in Ukraine, T-MEC, Nearshoring, as well as, the large gap in the interest rate differential. These have strengthened the optimism and preference for domestic assets leading to a process of transitory appreciation of the exchange rate, but its explanatory bases are concentrated on the dynamics of capital flows as shown in the figures above.

Finally, Figure 8 shows the evolution of percentage of deposit money bank's assets relative to GDP for the USA and Mexico from 1960 to 2020, how it had been growing during the last century, after the inflation-targeting approach. Over the 60-year period, the graph shows distinct trends and fluctuations in the financial sector's assets relative to GDP in both countries. This comparative analysis highlines the differences and similarities in financial development between the USA.

**Figure 8. USA: Deposit money banks' assets to GDP (%)**




**Source**: Global Financial Development Report, World Bank[5]

[5] https://www.worldbank.org/en/publication/gfdr/data/global-financial-development-database

In Mexico, although the growth is more modest, there is still an upward trend, particularly from the 1990s. This reflects the efforts of financial liberalization and reform within the Mexican financial system and its growing integration into the global financial system. For the US, there is a steady and significant growth, specially from the 1980s and 1990s onwards. This reflects a substantial expansion of the banking sector relative to the overall economy. The increasing proportion of these assets compared to GDP indicates greater financial intermediation and, therefore, the credit channel and endogenous money within banking system for economic expansion. In summary, the rise of this indicator suggests both opportunities and risk within each country's financial system, underscoring the need for adequate oversight and regulation.

## CONCLUSIONS

Throughout this paper, we analyzed the current models of teaching the theory of the new macroeconomic consensus that emphasizes the relevance of monetary policy and the role of the central bank as the omnipotent monetary policy to influence the variables of the real economy, inflation and economic growth and unemployment. However, they are governed under unrealistic assumptions that consider full employment, economic crises as white noise that have no long-term impacts, consider rational agents with full knowledge of the future and of the economic system, acting in favor of generalized welfare, for the allocation of scarce resources.

In the New Macroeconomic Consensus (Bernankenstein's Monster), Monetary Rule or Taylor Rule is the a priori tool of the central bank under which it can control inflation and thus determine the long-run equilibrium path to return to natural values. This vision, however, is nothing more than an attempt to control inflation and thus determine the long-run equilibrium path to return to natural values. The New Keynesian model, although it represents the new mountaineering based on some precepts of the New Keynesians, is not a suitable tool to understand and consider the relevance of the exchange rate in the economy and its importance as a tool for economic growth.

In contradiction to the orthodox theory, the free determination of the exchange rate in the market is driven by the globalization of financial and capital markets. This creates internal challenged for emerging countries like Mexico, which must adapt. Mexico is the OECD country with the highest number of working hours and lowest wages,  is the most important trading partner of US. The T-MEC (NAFTA) reaffirmation has consolidated Mexico's interdependence and subordination to the US.

Financial market is dominated by irrational behavior and collective euphoria. Consequently, the financial serves to transmute assets with the least confidence and certainty. Therefore, the central bank's efforts to control the peso's behavior have been futile, akin to trying to swim against the current in a sea of speculative capital movements. As the peso is a carry-trade currency, easily made liquid, the central bank attempts to control its behavior through interest rate increasing gradualism and reserve accumulation.

The Super Peso is a phenomenon that is composed of several factors, after pandemic crisis, economic recovery, Ukraine war, T-MEC, *Nearshoring,* but additionally, capital flows in gross portfolio assets, institutional, social, geographic, but they do not represent more than an occasional surge of elements in favor of the whole. The large gap in the rate differential that has made the optimism for long-term domestic assets in domestic bonds more prone to increase. During the publication of Harvey's book (2009), the global economy was experiencing the most important financial crisis of the new century, coupled with the global financial conflicts, we can conclude from a heterodox perspective, that the problem with conventional theory is based on its assumptions and the impossibility of conceiving crises within the theory, hence its inability to explain them.

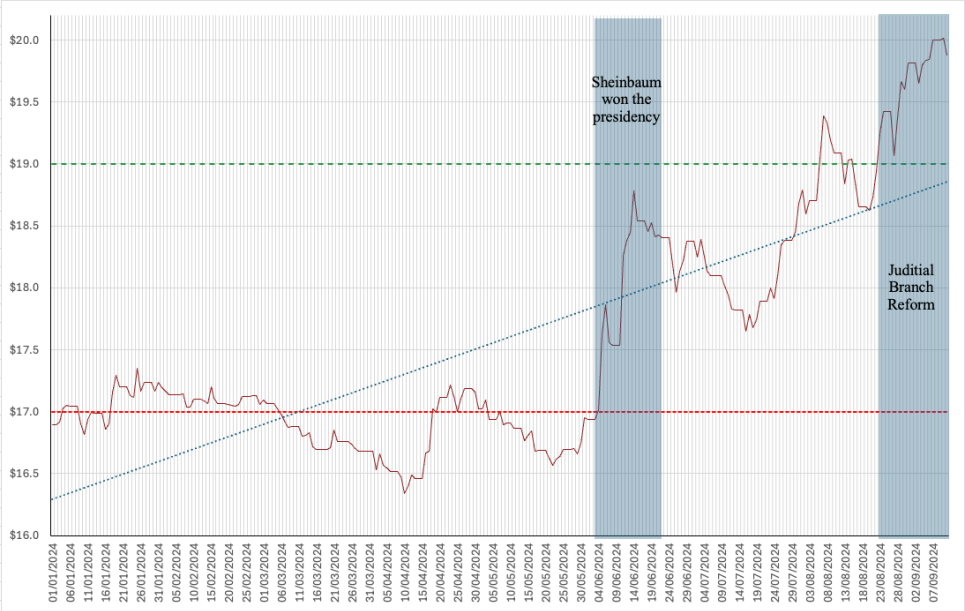
For the Mexican Super Peso, an incredible amount of resources is allocated to the control of exchange rate volatilities, the constant purchase and accumulation of international reserves and the high sensitivity of the central bank with the control of the interest rate to avoid capital outflows, reflect in itself a strong dependence and a Neo-mercantilism of the central bank that implies a high social cost that is nothing more than the result of inflation phobia.

Ultimately, from this reflection, we can conclude that it is important to retake a heterodox teaching methodology for our students and new generations of economists, for which it is important to know the weaknesses of the orthodox theory, from which we have been able to glimpse the most important shortcomings of the theory, and we managed to retake the strengths of the post-Keynesian theory and its explanatory capacity.

## UPDATE: ON THE LAST PERIOD OF EXCHANGE RATE VOLATILITIES

As we have analyzed, the Mexican Super Peso is the result of a multiplicity of factors, from macroeconomic factors to financial globalization, capital flows, and the inevitable intervention of the central bank through the injection of international reserves to reduce volatility. However, in the most recent period, the Mexican economy has been subject to various internal political controversies that have erased the gains of the Mexican currency and therefore corrected the circumstantial phenomenon that was summarized in the Mexican Super Peso as an artificial over-appreciation of the Mexican currency against the dollar. As we can observe in Figure 9 during the current year.

**Figure 9. Exchange Rate Dollar-Mexican peso daily data (January–September 2024)**




Source: own elaboration based on data from the Bank of Mexico.

These circumstantial phenomena are divided into two scenarios: the international environment and the domestic environment. In the international environment, the upcoming US elections and the protectionist trade policy of the Republican candidate would imply that Mexico would have problems in the renegotiation of the T-MEC and would scare away the attraction of Asian investments due to the phenomenon of relocation of Nearshoring companies, as a possible attraction for foreign direct investment in the country. In addition, in 2026 the renegotiation of the same trade agreement with its North American trading partners has been agreed upon, for which maintaining the rule of law and an environment of internal security for the retention of productive investment that generates jobs is fundamental.

In the national scenario, the month of September 2024 has represented a process of instability in internal politics with the upcoming change of six-year government, which, thanks to the presence of the first woman president Mexico's history,—as a scientist with significant capability and agenda focused on a welfare state— there is confidence in her preparedness to wield executive power. However, despite this generational achievement which signifies substantial progress in gender parity, the recent reform of the Mexican judiciary that generated uncertainty for international investors. This reform calls into question the division of powers among the executive, legislative and ministers by popular vote as a new order of legal system. Therefore, global political, psychological, macroeconomic, and financial factors are attached to the behavior of the Mexican Super Peso. Our analysis underscores the irrelevance of the orthodox perspective and highlights the importance of understanding the economy with various tools, as the heterodox perspective is more pertinent than the narrow orthodox economic vision.

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