

Characterization of the process of financialization in productive companies in Mexico

Caracterización del proceso de financiarización en empresas productivas de México

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Abstract

The article analyzes patterns among firms listed on the Mexican Stock Exchange (BMV) regarding their process of financialization, understood as the tendency toward a weaker orientation to productive investment due to the preference for other sources of financing that affect their performance. It starts from the idea that a lower willingness to reinvest is associated with corporate profiles more oriented toward obtaining financial income. For this analysis, a database was built using accounting and financial information from 25 firms for the 2018-2024 period, and nonparametric tests were applied to compare their financial characteristics. The results show statistically significant differences among groups of firms classified by their willingness to reinvest with respect to financial income, total leverage, operating profitability, and the proportion of fixed assets. The study seeks to contribute to describing the advance of financialization in Mexico and, at the same time, to the discussion of its implications for the evolution and strength of the productive sector.

Keywords: Financialization, productive reinvestment, nonparametric tests.

JEL Codes: D20, C10, G32

Resumen

El artículo analiza patrones entre entidades listadas en la Bolsa Mexicana de Valores (BMV) en torno a su proceso de financiarización, entendida como la tendencia a una menor orientación a la inversión productiva por la preferencia de otras fuentes de financiamiento que impactan en su desempeño. Se parte de la idea de que una menor disposición a reinvertir se asocia con perfiles corporativos más orientados a la obtención de ingresos financieros. Para el correspondiente análisis, se construyó una base con información contable y financiera de 25 empresas para el periodo 2018-2024, aplicándose pruebas no paramétricas para la comparación de sus características financieras. Los resultados muestran diferencias estadísticamente significativas entre grupos de empresas por su disposición a reinvertir respecto de ingresos financieros, apalancamiento total, rentabilidad operativa y proporción de activos fijos. El trabajo busca contribuir a la descripción del avance de la financiarización en México, y en igual medida, aportar a la discusión sobre sus implicaciones para la evolución y solidez del sector productivo.

Palabras clave: Financiarización, reinversión productiva, pruebas no paramétricas.

Códigos JEL: D20, C10, G32.

1. Introduction

In the last three decades, the concept of *financialization* has positioned itself as the central theme of research articles and academic debates, which, in addition to trying to define the genealogy of this phenomenon, seek to reveal its impacts in different economic and social spheres.

This extensive range brings together works that analyze how financialization has modified the distribution of income inside and outside companies. In this sense, some authors address issues such as the decrease in the wage bill within companies and the expansion of credit to households as a way to maintain current levels of consumption (Krippner, 2005; Ruesga, 2012; Bateman, 2013).

A second line emphasizes the institutional and regulatory changes that have reconfigured financial markets, particularly from financial liberalization, the opening of capital, and the dominance of monetary policy by international markets (Duarte Rivera, 2023; Capraro & Panic, n.d.).

Finally, various studies have focused on the transformations that this phenomenon has generated within corporations, highlighting the progressive shift of productive objectives towards obtaining financial benefits. From this point of view, companies allocate a growing part of their resources to speculative or rentier activities, subordinating productive investment to the logic of maximizing value for the shareholder (Villavicencio, 2020; Liu et al., 2022; Orhangazi, 2008; Palley, 2007; Demir, 2009; Ortiz Duran, 2014).

However, the ambiguous nature of the concept of financialization makes it difficult to delimit it precisely and clearly, since it is not a linear process, much less an isolated one; on the contrary, it is an accumulation of complex processes in which multiple social factors intervene that permeate the redefinition of contemporary economic, political, and social dynamics.

Although the current literature covers a wider variety of topics than the one presented here, a large number of studies focus on large economies, particularly in Western European countries and the United States, where the process of financialization has shown greater maturation, revealing specific dynamics early.

This limitation is one of the main motivations of this study, which, based on an analysis at the

business level, aims to demonstrate the behavior of companies in the productive sector in Mexico in a post-pandemic period and the evolution of their financial structure, evaluating through non-parametric tests applied to groups of companies classified according to their willingness to reinvest, if differentiated patterns of financialization emerge, and thus be able to infer whether or not Mexican companies replicate patterns observed in other contexts.

In this way, the results of this research seek to set a precedent in the real understanding of the phenomenon in emerging economies, providing valuable information for future academic research.

2. Literature Review

Werner Sombart coined the concept of *late capitalism* in his magnum opus *Der Moderne Kapitalismus* (Carvalho, Petit y Souza, 2019), his great contribution was the chronological definition of three key periods of the capitalist economic system, which he defined as early capitalism, advanced capitalism, and late capitalism (Avilés, 2022).

The latter, as foreshadowed by Marx and later defined by Sombart, is a profound change, a redefinition in the form of production, distribution, and consumption.

This situation can hardly be fully explained from the analytical framework of previous stages, since it brings with it the need to define and understand phenomena resulting from the transformation of multiple broad social and economic factors, outlining a new scenario of financialized capitalism (Lapavistas, 2009).

2.1 Key concepts of financialization

For some authors, financialization is defined as a process of accumulation led by finance, where the generation of profits is obtained through financial activities, rather than production and trade (Krippner, 2005; Ortiz Duran, 2014; Stockhammer, 2012). For its part, Palley (2007) identifies a growing importance of financial markets, motives, and institutions in economic policy, as well as in companies in the productive sector (non-financial corporations)¹ in which a highly weak gross investment expenditure is observed.

¹ According to the interpretation of Palley (2007) non-financial corporations, they exclude the finance, insurance and real estate sectors, grouped by the author under the acronym "FIRE".

It is worth mentioning that there is no single and consensual definition of financialization. Rather, it is a phenomenon that can be studied from several angles, such as a variety of different phenomena connected to each other, ranging from changes within financial markets to a growing importance and involvement of financial interests in the business sector (Medialdea García & Sanabria Martín, 2013).

Based on this, Epstein's (2001) interpretation is the most widely used in the literature on this process, which defines it as the increase in the role of financial motives in the functioning of national and international economies. This rise has permeated the areas of the economy most unrelated to this phenomenon, leading to the flexibility of the labour market, the erosion of trade unions, the deterioration of employee rights and social protections, the stimulation of the indebtedness of the most vulnerable social groups, and the growing commodification of housing and pension systems (Fumagalli & Lucarelli, 2011; Junquera Cubiles, 2024; Palley, 2007).

From this same perspective, Parui (2021) defines the concept of financialization as the growth of the participation of non-financial corporations (NFCs) in operations of a financial nature. Rabinovich (2019) agrees with this and adds that, at the enterprise level, profit-making production is increasingly oriented towards financial channels rather than through trade and production.

Specifically, and for the purposes of this research work, we will define financialization as a transition of financial and non-financial conglomerates, which leaves aside the productive activity of industry to direct its resources in the use of financial instruments and achieve an increase in the profits of companies (Ruesga, 2012), renouncing investment in capital goods, which promotes the productivity of the company.

2.2 The new economic logic

Some theoretical studies mention that the percentage of financial flows has been placed above the very low growth of productivity. In this regard, Tang (2025) states that these trends are pronounced in greater magnitude in companies located in regions with greater financial constraints and less market development.

According to Lapavitsas (2013) the present financialization process has 3 evident trends

that provide a generic delimitation in scope and magnitude, particularly the one that describes a growing participation of non-financial corporations (NFCs) in trading within the stock markets, which is related to this study.

The phenomenon of financialization has infiltrated all countries, touching economies such as Mexico, which presents a mechanism of "adoption and accommodation" of these globally developed mechanisms (Correa, Vidal and Marshall, 2013). According to Krippner (2005), whose analysis focuses on determining the extent to which Non-Financial Enterprises (NFEs) have given importance to sources of financial origin as their main income, it mentions that there has been a growing distancing in the productive function.

Given that the particular effects of this study problem are delimited by the historical and structural conditions of the economies themselves, in the case of Mexico, some studies mention that an important trend has begun to be observed in Non-Financial Corporations (NFCs), which have decided to prioritize the interests of the financial market.

This subordination of interests is accompanied by a transfiguration in the business management scheme, which has gone from a *stakeholder* type to a *shareholder* type (Álvarez Peralta & Luengo Escalonilla, 2011),² causing NFCs to begin a greedy search to obtain increasingly greater profits.

In view of the above, the hypothesis proposed maintains that the mutually exclusive event between productive investment and financial investment, derived from the financialization process, begins to take place in the dynamics with which companies in the productive sector operate in Mexico. Likewise, to infer the marked tendency to significantly reduce the willingness of these companies to reinvest in their productive activity.

2.3 Business dynamics

One of the events that marked a disruption in the behavior of the world economy is found in the period of economic growth between 1997 and 2001. After the outbreak of this cycle of high speculation known as the "*dot-com bubble*", the increase in credit for NFEs was followed by the proliferation of financial instruments (Correa et al., 2013) that

² A *stakeholder* business management model is considered when the company's internal control depends on the board of directors. In contrast, the *shareholder* model is based on external control dictated by financial markets.

initially helped to finance their productive activities through an increase in cash liquidity.

This situation was building a new panorama for the financial markets that had, to a certain extent, a substitution effect on the activities of commercial banks.³ Although the causes of this are diverse, in general, NFEs have shown a tendency to decrease the number of applications for bank loans from these years onwards, and, at the same time, an increase in financing in the financial markets, especially through the issuance of securities and the purchase and sale of assets (Villavicencio, 2020) (Figure 1).

Such a transformation in the financing dynamics of non-financial companies has influenced the allocation of resources managed within them. Traditionally, NFEs had their commercial activity as their main source of income and allocated a significant part of it to productive investment, with the main objective of promoting the growth of the company through the purchase of raw materials, fixed capital goods, or technological improvements, and thus be able to increase their profits in the long term through greater production capacity.

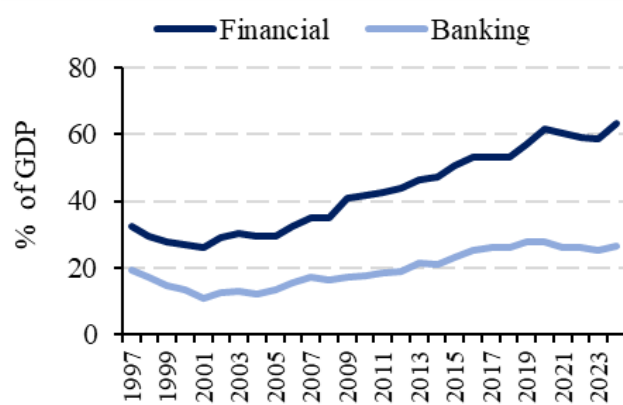
However, in a financialized economy, corporate strategies shift, moving from an ideology of “hold and reinvest” to “reduce and distribute” (Lazonick & O’Sullivan, 2000). This has a highly negative connotation, understanding that, in a company directed by shareholder interests with the main objective of obtaining the maximum possible profits in the shortest period of time, the planning of investment projects aimed at technological innovation and the increase of productivity with a focus on the long term have taken a back seat, causing them to be allocated less and less.

This observation has been addressed by different authors. Liu, Failler y Ding (2022) have stated that this financialized behavior generates a *crowding-out* effect, reducing the resources allocated to technological innovation aimed at increasing the productivity of the company.

If we analyze this process, we could say that financialization does not seem to be alarming at first and that it could even be beneficial for the growth and development of the company when

³ According to Villavicencio (2020) the non-financial corporations (NFCs) that have stopped borrowing from banks to cover their need for financing through participation in financial markets, this has caused the profits of banks to be mainly from being intermediaries between financial transactions and, secondly, from the payment of interest on loans and the management of savings.

Figure 1. Domestic credit provided to the Mexican private sector by sector type (% of GDP).



Source: World Bank, a,b

profits are used like any other income for productive purposes. Likewise, it would be valid to indicate that, by providing better access to financing through financial markets, there would be no reason for this to be counterproductive. However, there is no guarantee that these revenues will be used to finance the real investment (Liu & Dixon, 2022; Orhangazi, 2008) and in turn cause the growth of the company by increasing its production capacity and improving its production process.

The case study conducted by Tori & Onaran (2018) uses a panel data model with information from the balance sheets and financial statements of different companies listed on the UK stock exchange. This study shows that in the companies analyzed there is a low physical investment that leads to weak growth or stagnation, resulting in a previous scenario in which productivity is threatened in the long term. In contrast, articles such as the one by Soener (2021) conclude that this process of decision or indecision about investing in tangible production is polarized and more complex than one might think, since it mentions that, although the results observed in his research do show a reduction in productive investment, this surplus is not poured into financial investment, as if it were not an exclusive logic.

The existing articles on the Mexican case focus mainly on companies of national origin that are listed on the Mexican Stock Exchange, since their presence in that market implies that they are large corporations. Such analyses are carried out by reviewing the financial statements, with the intention of showing the portion of financial benefits compared to productive ones (Mendoza Hernández, 2010). As a reference, Reddy (2025) takes from the accounting structure of listed companies

the total investment flows such as expenditure on physical and intangible assets, new and acquired.

In cases such as China, Gong, Gong and Jiang (2023) also uses a sample of companies listed on the China Stock Exchange in the stock market, concluding that, for China, the correct allocation of financial assets improves business investment to a great extent.

Authors such as Álvarez Peralta & Luengo Escalonilla (2011); Demir (2009); Y. Liu et al. (2022) y Orhangazi (2008) have carried out studies with quite important contributions that answer research questions on how companies obtain high profits even with lower investment expenses and how preferences change in the choice of their portfolio in situations of risk and uncertainty. On the other hand, this article addresses the problem from the sectorization of data and a microeconomic level of the same, with the main objective of contributing significantly to the current debate on the effects of financialization in peripheral economies.

3. Methodology

In order to test the hypothesis, and find a statistical approximation, it is necessary to focus this study on the evolution of various microeconomic variables that allow us to evaluate the impact between financial income, return on assets (ROA), financial leverage, dividends paid, percentage of equity, operating profitability (ROE), interest income, the proportions of fixed assets and a coverage ratio of the company. These variables will be measured according to the decision of companies to reinvest in their productive activity. It is the variable that will allow us to prioritize the data and evaluate the possible differences between groups.

The importance and measurement of including each variable is described in Table 1.

In accordance with the above, this study adopts an inductive approach, with the support of non-parametric statistical techniques, whose objective is to demonstrate the relationship between the variables analyzed and their impact on the company during the decision-making process, particularly in the allocation of income to productive investment.

For the purposes of this study, information was gathered from the financial statements of 25⁴ productive companies in the industrial sector that

⁴ Out of a total of 34 companies, only 25 have complete financial information for the period of analysis.

are currently listed on the capital market⁵ of the Mexican Stock Exchange (BMV), since, due to the characteristics of their activity, it is considered that they allow greater visibility of the phenomenon to be analyzed. Given the exploratory nature of the study and the limitations in the availability and comparability of financial information, it was decided to work with an intentional sample of listed companies, since this universe allows for public, relatively homogeneous and useful data to identify patterns of the phenomenon analyzed. In addition, the limited number of cases and the heterogeneity observed among the firms make the use of non-parametric tests pertinent as a technical decision according to the characteristics of the built base.

The data was obtained from the annual reports of the companies, which cover a period of 7 years from 2018 to 2024. These years have been considered because, firstly, obtaining the financial statements of companies for previous years may represent a problem that limits the study; in the background, there is the need to capture the latent uncertainty caused by the global COVID 19 pandemic, and which represented a driving force to adopt a behavior where companies began to obtain greater income from financial speculation operations as a method of hedging against the risk of a weakening of the productive sector, which presented a stagnation for this period.

Once the necessary information was collected, the next step was to obtain an average of the corresponding data from 2018 to 2024 for each company. In other words, instead of working with multiple annual observations for each company, it was decided to generate an average value per variable for each company, trying to avoid distortions exhibited in the period analyzed that covers the pandemic.

This decision is made based on the observation of the data, since, being a relatively short period compared to the financial cycles of companies, the trend component of the data remained similar between periods. In addition, for some specific cases, this methodology helped to smooth out atypical variations in the data and thus avoid distortions in the interpretation of the evidence.

In a third stage, the sectorization of the sample was carried out in order to facilitate comparison

⁵ Only companies listed on this type of market with the sale of shares will be considered.

Table 1. Defining Variables

Variable Name	Variable	Importance	Formula
Reinvestment Readiness (%)	DispR	It allows companies to be classified according to their degree of reinvestment.	$DispR = \left(\frac{\text{Purchase of plant and equipment}^1}{\text{Total assets}} \right) \times 100$
Equity	FP	It indicates what percentage of the company's income comes from financial investments instead of productive activity.	$FP = \left(\frac{\text{Financial income}}{\text{Share capital}} \right) \times 100$
Financial income	IF	It measures whether a greater flow of financial income is related to a lower willingness to reinvest in productive capacity.	$IF = \left(\frac{\text{Financial income}}{\text{Total income}} \right)$
Return on Assets	ROA	It will ensure that the observed effect is not simply due to the company being more or less profitable. A profitable company should reinvest more.	$ROA = \left(\frac{\text{Net profit}}{\text{Total assets}} \right)$
Total leverage	ApT	Identify the company's indebtedness.	$ApT = \left(\frac{\text{Total liabilities}}{\text{Total assets}} \right)$
Dividends paid	DPg	It shows how much of the company's net income is used to pay dividends to shareholders.	$DPg = \left(\frac{\text{Dividends paid}}{\text{Net profit}} \right)$
Net profit margin	MgN	It measures the company's net profit margin.	$MgN = \left(\frac{\text{Net profit}}{\text{Total income}} \right)$
Fixed Asset Ratio	PAF	Measures the ratio of fixed assets to total assets.	$PAF = \left(\frac{\text{Net fixed assets}}{\text{Total assets}} \right)$
Operational profitability	ROE	It allows you to identify whether the company's core business is profitable on its own.	$ROE = \left(\frac{\text{Operating profit}}{\text{Total income}} \right)$
Coverage	Co	Number of times profits will be able to pay off the company's debts	$Co = \left(\frac{\text{Net profit}}{\text{Total liabilities}} \right)$

Source: Authors.

and subsequent analysis. This classification, based on the willingness of companies to reinvest, allows them to be grouped according to their behavior and, with this, to identify more precisely the differentiated effects that financialization could cause depending on the type of company and its reinvestment pattern. Table 2 then describes the identification groups in tertiles⁶ and the number of observations that were associated with a total of 25 observations. In this way, what is obtained are more balanced groups with a higher comparability between the data.

The groups of companies arranged by level of reinvestment readiness are the following:⁷

High (Disposition from 2.9 to 14%): Alfa, Asur, Ctalpek, Gap, Gmxt, Kuo, Pasa, Traxion, Vesta.

Medium (Disposition from 2.3 to 0.6%): Aristos, Dine, Gcarso, Gmd, Homex, Oma, Pinfra, Tmm.

Low (Disposition from 0.2 to 0.05 %): Water, Ara, Cadu, Gav, Gicsa, Ideal, Planí, Vinte

Finally, in a fourth phase, the use of non-parametric

⁶ Intervals defined in tertiles are considered given the size of the sample and the little variation they present in the *DispR* variable.

⁷ The companies listed according to the ticker symbol that were registered with the Mexican Stock Exchange (BMV) are mentioned

tests was carried out, which have become relevant for contributions in economic theory, especially when the assumptions of non-normality or specific functional form are not met. This is its main advantage since its validity is not conditioned by restrictions on the distribution of the data, its flexibility reveals interesting characteristics that would be difficult to detect with standard parametric tests (Baiocchi, 2006). Nonparametric tests have been used in order to develop results that identify how variables not observed in econometric models affect them, including them as additive variables (Matzkin, 2013).

Specifically, the Kruskal-Wallis test⁸ is used when comparing the means of *k* number of populations that do not have equal variances or, failing that, do not follow a normal distribution (Ostertagová, Ostertag y Kováč, 2014), being a generalized method of the Mann-Whitney U test and a nonparametric version of the one-way ANOVA analysis of variance (Tapia & Cevallos, 2022). The null hypothesis of the test (H_0) states that the samples come from populations with the same distribution. Similarly, the alternative hypothesis (H_1) states that the samples come from populations with different distributions. According

⁸ Non-parametric method used in this article.

Table 2. Sample Sectorization

Group	Intervalo	Number of observations
Low	≤ percentile 33%	8
Medium	> 33% and ≤ 66%	8
High	>66%	9

Source: Authors.

to this, the hypotheses that our study seeks to test will be the following:

H_0 : There are no statistically significant differences in the financial variables analysed (MgN, IF, ApT, ROE, ROA, DPg, Co, FP and PAF) between the groups of companies classified according to their level of willingness to reinvest

H_1 : There are statistically significant differences in at least one of the financial variables analysed between the groups of companies classified according to their level of willingness to reinvest.

To this end, the tests applied were carried out using the statistical software RStudio, using the Willingness to reinvest (DispR) as a key variable to analyze the behavior of others. The results of this approach are below.

4. Results

The analysis of the variables began with the review of the behavior of the profit margin of the companies in the study period. Overall, based on the graphs presented below, we can observe significant heterogeneity throughout the period analyzed. However, although significant drops are observed in all cases, it is necessary to remember that, due to the study period, it is very likely that most of them were affected by the COVID-19 pandemic.

In general terms, it can be said that most firms maintain stable profitability levels and are limited within a low to moderate range.

In the graphs (Figure 2) corresponding to the companies GAP, GAV, and OMA, a highly similar behavior is shown, since they start with values higher than their average and all coincide in 2020 with a drop of almost half of the values they presented in the two periods, recovering in the following three years. Much like the behavior described, GAV, PINFRA, PLANI, and TMM show that, in 2024, their net profit margin increases by almost 50%.⁹

⁹ Although there is a significant difference in the values that characterize the dynamics of these four companies (GAV, PINFRA, PLANI and

Despite this, within the group of companies, there are cases that are excluded from the average and that present a highly different behavior, with a net margin characterized by its dispersion. Such is the case of GAV, GICSA, and HOMEX, and, to a lesser extent, DINE or IDEAL, which have atypically high or very volatile margins. The first three companies referred to (GAV, GICSA, and HOMEX) are the most extreme examples, with values reaching 103%, 106%, and 107% for some years, accompanied by sharp falls.

Taken together, the evidence suggests a coexistence of differentiable and almost opposite dynamics within the universe of companies considered for the study. On the one hand, there is a majority group of companies whose profitability could be said to come mainly from their productive activities and whose net profit margin reflects classic conditions of business competition. In an almost analogous way, a subset of firms is identified whose results can be affected by both financial and speculative external factors, which coincides with the theoretical discussions on the financialization process that have been raised in previous sections.

As can be seen in Table 3, the descriptive statistical analysis reveals important differences in the distribution and dispersion of some variables considered. Firstly, the net profit margin has an average of 0.174, while the median barely reaches 0.097, which indicates that in most companies the margins are small. In contrast, there are very high values, as reflected in the maximum of this variable, which reaches 0.55, a figure that, as explained above, can be associated with external financial effects or specific accounting dynamics.

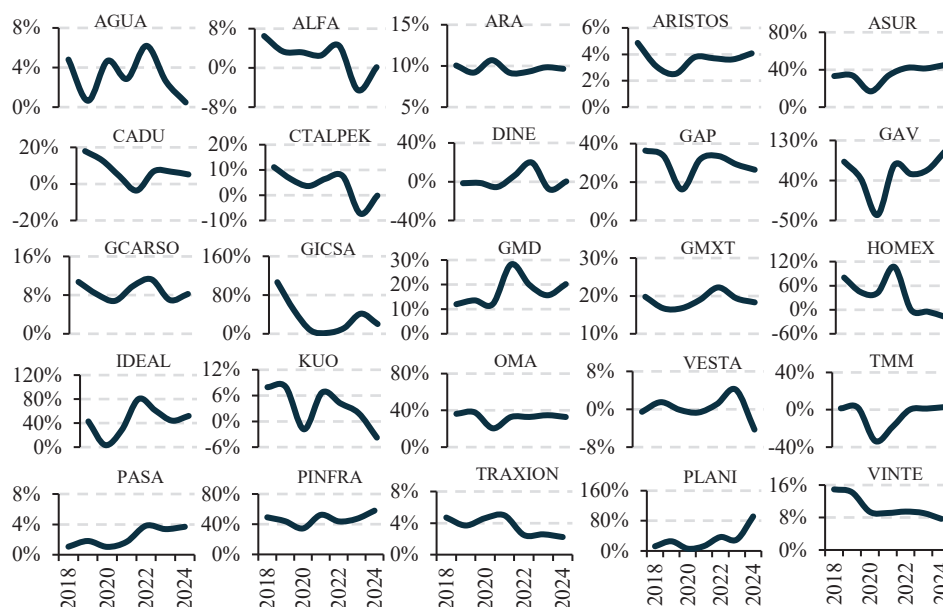
For its part, the DispR variable already presents a divergence between companies, reaching maximum values close to 14 and minimums that do not reach the value of 1. This can give us an idea of the levels of reinvestment that companies handle, which are relatively low, but with isolated cases that are above average. In contrast, financial income has an average of 0.052, although the median is only 0.008, there is in this case a group of companies that obtain financial income much higher than the rest.¹⁰

Analyzing total leverage, it could be said that

TMM), the corresponding values for each of them in 2024 are 104%, 58%, 92% and 3% respectively.

¹⁰ Financial income and equity have a minimum of 0 because ASUR and GAP reported values of zero for financial income in their annual reports.

Figure 2. Evolution of net profit margins (%).



Note: The Net Profit Margin (MgN) is expressed as a percentage.

Source: Own elaboration with data from the financial statements of the companies.

companies operate at low levels of debt, which speaks of a good financial strategy. ROA and ROE, both variables, show a dispersed distribution, with a difference between mean and median of 0.17 and 0.037, respectively. This indicates that most of the average and median of these returns remain low, with the exception of some companies, such as GAV and VESTA (in the case of ROE) that have higher returns than the rest.

The coverage index (Co) is triggered by CADU, which represents the maximum value of 60.48, although the mean is 2.53, describing again asymmetric distributions, biased towards low values, with specific cases that are outside the average.

Based on the above, the non-parametric Kruskal-Wallis test is performed, where important results are obtained, which are detailed below in Table 4.

The results of the test show a differentiated behavior between the variables that can be associated with financial dynamics compared to those linked to the productive operation.

In order of importance, it was identified that in the proportion of financial income (IF) there are differences with high statistical significance between the groups defined according to their level of willingness to reinvest (high, medium, and low),

with a *p-value* of 0.0018. This behavior suggests a possible relationship between reinvestment levels and financial income earnings. However, to confirm more precisely the nature and direction of this association would require the application of more robust tests.

Similarly, the results of the operating profitability (ROE) and total leverage (ApT) variables reaffirm that there are persistent differences between groups. This implies that companies with different willingness to reinvest denote different debt structures and levels of return for shareholders, and although leverage could indicate that traditional borrowing strategies are still present, they coexist with financial activities that provide a differentiating role.

For its part, the proportion of financial assets (PAF) registers the most significant value of the whole, pointing out clear differences in the relative weight that financial assets have within the financial and accounting structures. In other words, it can be said that companies that reinvest less operationally tend to hold a higher proportion of financial assets.

Similarly, and reinforcing the premise of the existence of corporate financialization, dividends paid (DPg) with a *p-value* of 0.072, very close to what is necessary to be considered statistically

Table 3. Descriptive statistics of the study variables

Statistician	MgN	DispR	FP	IF	ApT	PAF	ROE	ROA	DPg	CO
<i>Media</i>	0.174	3.046	12.841	0.052	0.530	0.222	0.323	0.068	0.174	2.533
<i>Medium</i>	0.097	1.913	3.274	0.008	0.517	0.077	0.147	0.031	0.130	0.089
<i>Minimum</i>	-0.063	0.052	0.000	0.000	0.001	0.001	-0.017	-0.021	-1.486	-0.044
<i>Maximum</i>	0.550	13.908	63.469	0.432	1.199	1.366	1.060	0.359	0.967	60.487
<i>Standard deviation</i>	0.175	3.677	19.19	0.105	0.272	0.316	0.319	0.092	0.476	12.074

Note: The descriptive statistics were obtained using the average values of each company for the period from 2018 to 2024.

Source: Own calculations using companies' financial information.

Table 4. Kruskal-Wallis Test Results

Variable analyzed	χ^2 (Chi-square)	P-value	Statistical significance
<i>IF</i>	12.552	0.001881	Significant
<i>ROE</i>	6.0046	0.04967	Significant
<i>ApT</i>	6.6854	0.03534	Significant
<i>PAF</i>	15.066	0.0005352	Significant
<i>DPg</i>	0.7862	0.6749	Not significant

Source: Own estimates.

significant at 5%, show a positive trend towards financialization. Although it cannot be said due to the lack of marked differences, it can be intuited that the direction of the result coincides with the idea that companies with less productive reinvestment could be oriented to allocate their profits via the payment to shareholders, in order to increase the value of the latter.

In the case of the variables equity (FP), net profit margin (MgN), hedging (Co) and return on assets (ROA), they presented non-significant values.¹¹

As can be seen in Figure 3.A for operating profitability, there is a substantial difference in terms of companies that have a medium and low willingness to reinvest versus those that are classified as having a low willingness. This indicates that, although companies in general turn out to be operationally efficient and maintain positive margins in their productive activity, the profitability of the company comes from the position in which it is today with its current way of operating, but it does not turn out to be synonymous with the resource allocation strategy prioritizing productive growth. As pointed out Mendoza Hernández (2010), it is very likely that, being consolidated companies and, in some cases, oligopolistic, they present a strong production dynamic that has provided them with

a financially stable position; however, this is what can facilitate obtaining financing through their participation in financial markets.

It is notorious that companies with a low willingness to reinvest maintain a small amount of fixed assets in their accumulation regime (Figure 3.B). Some studies mention that, although the magnitude and mechanisms are different between sectors, the decrease in these assets is not a minor issue, which is only defined by the reduction of investment towards productive activity, but reflects a reorientation of corporate strategy (Klinge, Fernandez y Aalbers, 2020).

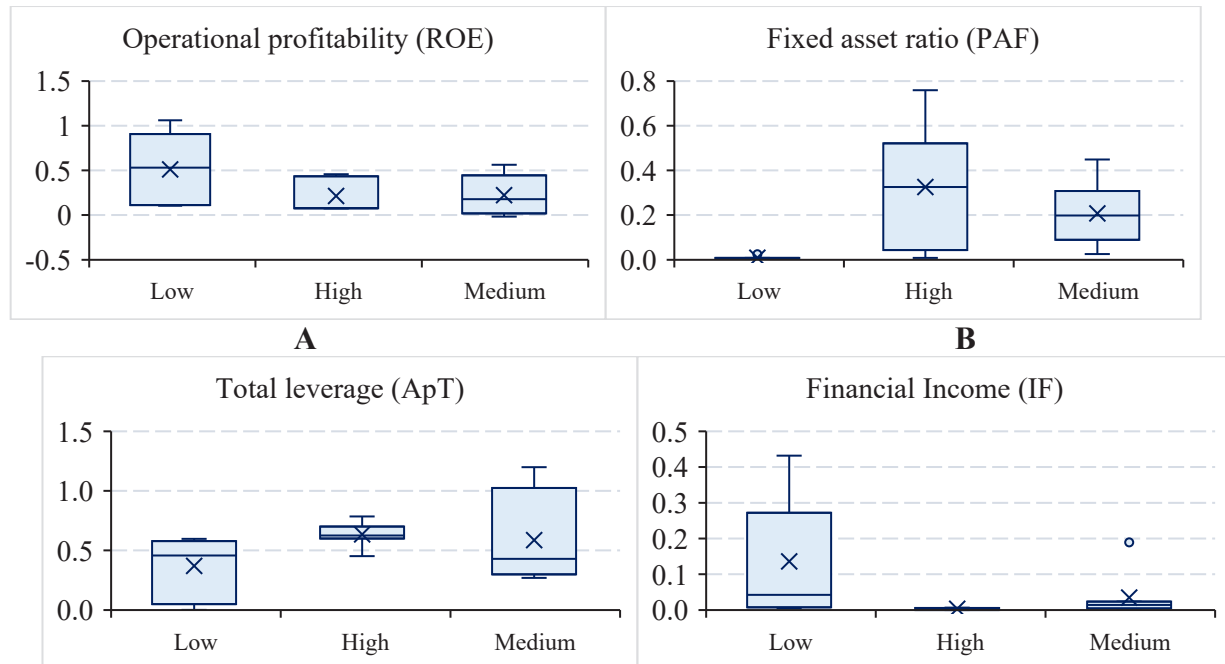
Total leverage (Figure 3.C) shows that there is a trend towards classical financing, but it does not limit firms to presenting this strategy as the only way to obtain additional resources.

Finally, financial income (Figure 3.D) turns out to be the cornerstone of this discussion; this proportion of income held by companies is unmatched in the group of low willingness to reinvest. One cannot help but think that as financial income becomes more important on companies' balance sheets, less and less is being obtained from productive activity as the main source of profit.

Now, the results of Table 4 only allude to the differences between groups in general. In this sense, the pairwise comparisons allow us to specify where the differences observed in the global test are located (see Table 5). With respect to financial income and total leverage, the statistically significant difference is concentrated between the groups with a high and low willingness to reinvest, which suggests more marked contrasts at the extremes. In the proportion of fixed assets, on the other hand, the group with a low willingness to reinvest is distinguished from both the medium and high groups, while the latter two do not show differences between them. For

¹¹ The p-values are as follows: FP = 0.3983, MgN = 0.3172, Co = 0.735, ROA = 0.5799.

Figure 3. Kruskal-Wallis test for independent samples



Source: Own elaboration.

operating profitability, such contrasting differences were not confirmed by pairs after adjustment for multiple comparisons; however, if there are a couple of groups that contrast for these variables, they are those with a high level and a low willingness to reinvest (which would be significant at a significance level of 10%).

The financialization process can also be seen in the short term, with positive effects that help alleviate the pressures of financing restrictions when access to credit is limited and not very lax in its requirements.

Overall, the tests carried out show sufficient empirical evidence of the process of financialization existing in the business environment. The relevant divergences between companies are not explained only by their productive structure, but also by how they are financed, what type of assets they accumulate, and to what extent. It is also defined by what they prioritize when making decisions, whether to reinvest in their productive activity or allocate resources to financial channels, and how they decide to generate profitability outside of their main activity.

Table 5. Results of nonparametric tests by pairs of groups

Variable	Kruskal-Wallis Global Test (p)	Overall decision on H_0	Comparison by pairs	Adjusted sig.	H_0 Decision
Financial income (IF)	0.002	Rejected	High vs. Medium	0.131	Not rejected
			High vs. Low	0.001	Rejected
			Medium vs. Low	0.432	Not rejected
Operating profitability (ROE)	0.05	Rejected*	High vs. Medium	1.000	Not rejected
			High vs. Low	0.054	Not rejected
			Medium vs. Low	0.232	Not rejected
Total Leverage (ApT)	0.035	Rejected	Low vs. Medium	1.000	Not rejected
			Low vs. High	0.048	Rejected
			Medium vs. High	0.151	Not rejected
Fixed Asset Ratio (PAF)	0.001	Rejected	Low vs. Medium	0.008	Rejected
			Low vs. High	0.001	Rejected
			Medium vs. High	1.000	Not rejected

Note: H_0 in the global test: the distribution of the variable is the same among the categories of willingness to reinvest. H_0 in pair comparisons: the distribution of the variable is equal between each pair of groups. Pairwise comparisons are interpreted with the significance adjusted by Bonferroni; H_0 is rejected when p adjusted < 0.05. In ROE, the global significance is exactly at the threshold of 0.05, so its interpretation must be made with caution. *Result located exactly at the threshold of significance ($p = 0.050$), so it should be interpreted with caution.

Source: Own elaboration

Conclusions

This analysis provides consistent evidence that Mexican companies in the industrial sector listed on the Mexican Stock Exchange (BMV) have decreased their fixed assets as part of an internal financialization process. First, the descriptive statistics showed that there is a heterogeneous structure. This situation can help us to anticipate that companies do not follow a single pattern of behavior in the face of reinvestment, which, as mentioned at the beginning, depends on social, political, and internal decisions of broad spectrums, which are differentiated in each case by the conditions and behavioral structures of the companies.

Second, the Kruskal-Wallis test confirms this structural diversity by showing that only some variables present statistically significant differences between groups of firms. Specifically, the results indicate that these divergences are linked to the profile of willingness to reinvest, being particularly noticeable in the extreme groups (high and low). This presents sufficient reason to reject the null hypothesis that *“There are no statistically significant differences in the financial variables analyzed (MgN, IF, ApT, ROE, ROA, DPg, Co, FP, and PAF) between the groups of companies classified according to their level of willingness to reinvest”*, suggesting that reinvestment is linked to specific characteristics of the accumulation profile, rather than with the operational or profitable performance of the business.

This finding, reinforced with the theoretical framework exposed, is consistent with the analyses carried out for various countries, including Mexico, where they propose that the operational logic of corporations tends to be detached from the production process, prioritizing financial flows, maximizing shareholder value and short-term profit-making strategies, forming a relationship where obtaining financial income suffocates obtaining income through its productive capacity. This contradicts the basic principles that make up the reason for the operation of a company, such as providing consumer goods to the economy through reinvestment in productive assets that increase production in order to intensify the benefits obtained from this process.

Unlike other countries that have been studied, we can say that, in the case of Mexico, the process of

financialization is in an incipient stage, but with marked patterns of what can be shown in the future.

Taken together, these results allow us to conclude that the willingness to reinvest is not guided by profitability or by the immediate benefits of the operation, but rather by factors associated with the financial structure, the availability of financing, and the demands of physical capital. This coincides with the literature on financialization, where corporate decisions are reorganized around financial rather than productive criteria (Massó, Davis, & Abalde, 2020). Although it has been raised and, in some cases, stated that this financialized process can be beneficial for companies, its effect is not uniform. In some cases, this has allowed greater revenues to be obtained that function as a containment against external factors.

However, even recognizing the possible positive effects, it is difficult to ensure that the obtaining of this extra income will be used for production processes, whether translated into the purchase of machinery or improvements in fixed capital, investment in research and development of optimized processes or even to improve the wages of the productive force of a company.

As mentioned at the beginning of the article, the process of financialization is not a finished and complete product, much less with a single presentation, this process will continue to mature, acquiring new forms, different channels of transmission and subrogating social, political and economic dynamics to the interest of the financial markets. However, at this time, financialization as we know it is a fact among the companies studied and has become increasingly present over time, through external processes that facilitated its adoption, such as the COVID-19 pandemic, which, in the face of a total paralysis of productive activity in all countries, forced the directors of the different companies to seek strategies to ensure the stability of their institution, contributing to the definition of the course and speed of this process.

Finally, the willingness to reinvest in Mexican companies is not interpreted generically as an automatic sign of productive dynamism, but as the profound reconfiguration of their strategic priorities that have been evolving under the framework of financialization. Companies do not reinvest because their operation is profitable, nor

because the productive activity demands it, but because their financial structure allows them to do so. In view of this, it is necessary to design policies that seek to strengthen productive investment in Mexican companies and, in this way, counteract the effects of an economy aimed at obtaining financial returns unrelated to productive activities.

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