A Strategic Positioning of Chilean Alternative Securities Investment Using Factor Analysis

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ABSTRACT

The research analyzed the investment strategies of Chilean investors, focusing on the factors influencing their choices between money market, mutual fund, bond investments, and equity market options. As a key emerging market in Latin America, understanding these strategies is essential—especially in light of recent economic fluctuations and inflation concerns. Utilizing XLStat for factor analysis, the study examined data spanning from 2013 to 2023, sourced from the World Bank, the Chilean Central Bank, and financial institutions such as the Santiago Stock Exchange (SSE). A team of experienced economists provided Delphi ratings to assess investor preferences across various asset classes, enabling the identification of key drivers like attractive yields, stock index growth, and risk-return tradeoffs as pivotal in shaping these decisions. The analysis reveals a preference for conservative investments, particularly in uncertain periods, with bonds and bank deposits favored over equity investments. Should equity outcomes fall short, strategic shifts indicate an aggressive stance on mutual funds, competitive investment in foreign exchange, conservative positioning in bonds, and a defensive approach via bank deposits. The study concludes that fostering innovation in Chile's equity and alternative securities markets is vital for supporting economic resilience and growth. Recommendations emphasize increasing the competitiveness of the SSE, broadening third-party bank financing, attracting high-net-worth investors to Chilean mutual funds, strengthening foreign exchange transactions, and advancing the private sector equity trading to drive sustainable economic progress.

Keywords: Market capitalization, securities investment (equity, deposits, mutual fund, money or foreign exchange, and bonds).

INTRODUCTION

The analysis focuses on how Chile, as a member of the CTTPP-11 (a trade agreement between 11 nations), has achieved significant economic and industrial development. Chile is recognized for its strong economic infrastructure and its leading role in the export of minerals and agricultural products, establishing itself as a key player in global trade. The 1982 financial crisis is often recalled, largely attributed to external debt and the collapse of the Chilean financial sector. However, some, like Shoemaker (2009), argue that the crisis was caused by the poor execution of neoliberal policies, which encouraged excessive external borrowing while maintaining a fixed exchange rate, ultimately destabilizing the economy.

Another significant aspect of Chile's adaptation to global trends is its focus on sustainability and renewable energy. Acosta et al. (2022) reported that Chile aims to lead the global development of green hydrogen, positioning itself as a major player in this emerging industry by 2030 (The Ministry of Energy, 2020). This initiative is closely linked to Chile's existing investments in solar and wind power, particularly in the Atacama Desert, one of the best locations worldwide for solar energy due to its high solar radiation levels. Furthermore, Chile's digital transformation is noteworthy, with the government advancing the digitalization of public services and fostering innovation in the fintech sector, which has experienced significant growth in recent years. Chile also continues to modernize its financial sector to integrate more fully into global

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markets. The adoption of international regulations and the attraction of foreign investment have been key to maintaining its reputation as a reliable destination for global investors. Chile has been recognized as a leader in the implementation of its Sustainable Development Goals (SDGs), particularly in poverty reduction and social development. According to the World Bank, Chile successfully reduced poverty from over 30% in 2000 to just 6.4% in 2021, driven by sustained economic growth and progressive social policies. However, income inequality remains a significant issue, with a Gini coefficient of around 44.9% in 2021, reflecting the need for continued efforts to reduce disparities (World Bank, 2022). On the financial front, the Santiago Stock Exchange (IPSA) has shown resilience despite global and local challenges. In 2023, the IPSA index fluctuated around 5,300 points, reflecting both internal reforms and external economic pressures such as global inflation and fluctuations in copper prices, a key export for Chile (Lagos et al., 2020). Compared to other Latin American markets, such as Brazil or Mexico, Chile's equity market remains stable, though investors are cautious due to political reforms and economic uncertainty (Bloomberg, 2023).

Chile's stock market capitalization reached some USD 285 billion compared to USD 265 billion in the year 2023 and 2013, respectively, in spite of the relatively low CAGR of 2.1%. The country's stock market transactions seemed to indicate some 13.6% of the country's GDP (ppp) or hovering around USD 70 billion as of the year 2023, which was lower than that of the USD 177 billion banking system deposit investment. The other alternative investments like mutual fund (USD 21 billion) and bonds (USD 17 billion) also indicated the same lower level compared to the banking system's deposits as of 2023. The alternative money market, mostly foreign exchange transaction like spot, forward and derivatives, ranged from a low USD 1 billion to a high USD 8 billion according to the Bank of International Settlements (BIS) data as of the year 2023, which had grown at a negative CAGR of 98% from that of USD 12 billion/day in 2013. Refer to Table 1.

Table 1 Chilean Securities Investments In 2023 and the Average of the Period 2013-2023

TRANSACTION	2023	During 2013- 2023	
(USD-Billion, except for CAGR)		Average	CAGR%*
Equity market capitalization (est.)	285	275	2.1
Alternative investments:			
Bank deposit (est.)	177	159	10.4
Mutual fund (est.)	21	44	9.8
Money market (est.)**	8/day	5/day	-98
Bonds (est.)	15	27	0.0

Source: Chile Country Report 2023 (Fondos Mutuos) statistics (https://www.aafm.cl/2016/wp-content/uploads/2023/12/Chile-2023.pdf) *Compounded Annual Growth Rate % or CAGR% **BIS

Chile's securities transactions during the normal period (2013-2020) before the pandemic indicated that mutual fund investments, revealed by the Chilean Mutual Fund Association, had recorded a high compounded annual growth rate (CAGR) of 9.8%, which had exceeded the equity transactions of 2.1% revealed by the Santiago Stock Exchange statistics. Nevertheless, the fixed income (FI) deposit from the regular Chilean banking system indicated the highest CAGR of 10.4% per year as the Chilean alternative saving. Refer to Table 1.

Chilean Securities Investment in General

In addition to investments in the primary and secondary securities markets, Chileans and foreign investors often engage in money market investments, fixed-income deposits, mutual funds, and bond investments. Chile's secondary securities market operates through the Santiago Stock Exchange (SSE) and its affiliate, the Foreign Securities Market (FSM), both located in Santiago, the capital of Chile.

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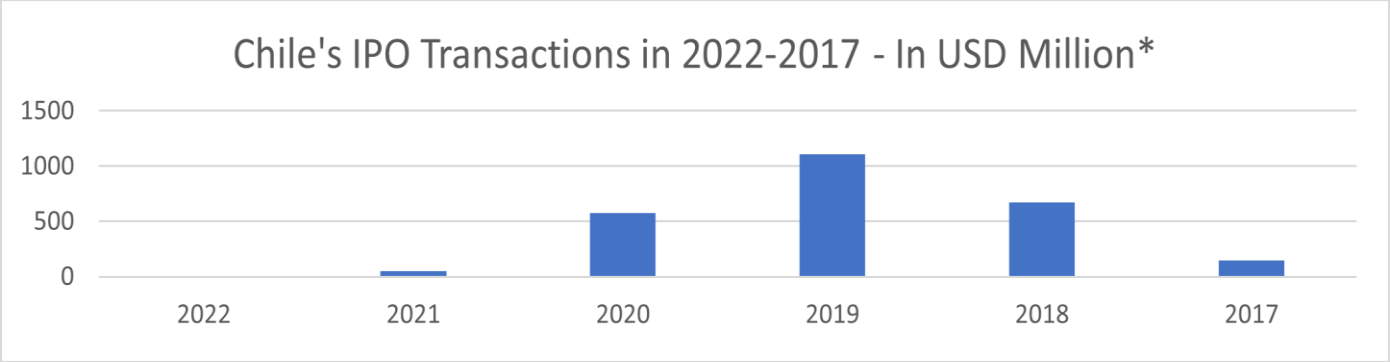
Equity Investment

Chile's equity market, which consists of the primary market and secondary market, seemed to experience a slight downturn until the year 2023. Secondary market transactions with a total amount of USD 1,573 million as of December 31, 2021 declined to USD 1,506 million in June 30, 2023, or at a negative CAGR of 2.9% per year. So, it was, for the initial public offering or IPO transactions, from USD 148.2 million in 2017 to only USD 3.9 million in 2022, or at a negative CAGR of 51.7% per year. However, it topped in the amount of USD 1,106 million in the year 2019, exactly a year before the covid-19 pandemic. Refer to Figure 1.

Figure 1 Chile's Total Initial Public Offerings (IPO) Transaction in 2017-2022 (In USD Million)

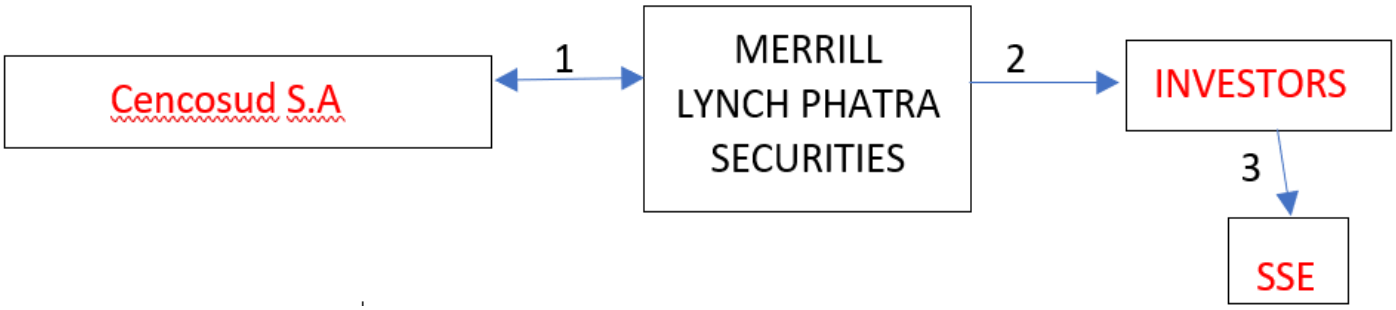


Source: Chile Country Report 2023. *2022 ($3.9), 2021 ($49.1), 2020 ($577.8), 2019 ($1106.0), 2018 ($674.7), and 2017 ($148.2)

Primary Market Equity Investment

The primary market involves securing additional equity funds for a company, distinct from those held by original shareholders, with the aid of an intermediary, typically the underwriter, who ensures the availability of funds for an IPO. Upon full fund availability, shares are listed on the stock exchange, where the secondary market functions. To illustrate this process, consider the instance of Chilean retailer Cencosud Shopping, a significant South American retail conglomerate, which executed Chile's largest IPO valued at US$1.03 billion on July 2, 2019. The underwriting of this IPO was led by Merrill Lynch Phatra Securities, with legal support from teams at Milbank, Morales & Besa, Shearman & Sterling LLP, and Carey, ensuring a robust execution of the offering. Merrill Lynch Phatra Securities successfully engaged Chilean pension funds, local banks, and international investors, comprising 58.5%, 11.7%, and 8.3% of the investors, respectively, with significant participation from high-net-worth individuals and asset management firms, showcasing a diverse investor base for the IPO. Refer to Figure 2.

Figure 2 Primary Equity Market of Cencosud S.A US$ 1.3 billion IPO. Process: 1 – Underwriting agreement to raise US$1.3 billion IPO 2 – Underwriter sells to investors 3 – Sell/buy with *SSE



*Santiago Stock Exchange

Alternative Securities Investments

This article explored a minimum of four different investment alternatives, namely fixed-income deposits, mutual funds, money market instruments, and bond investments.

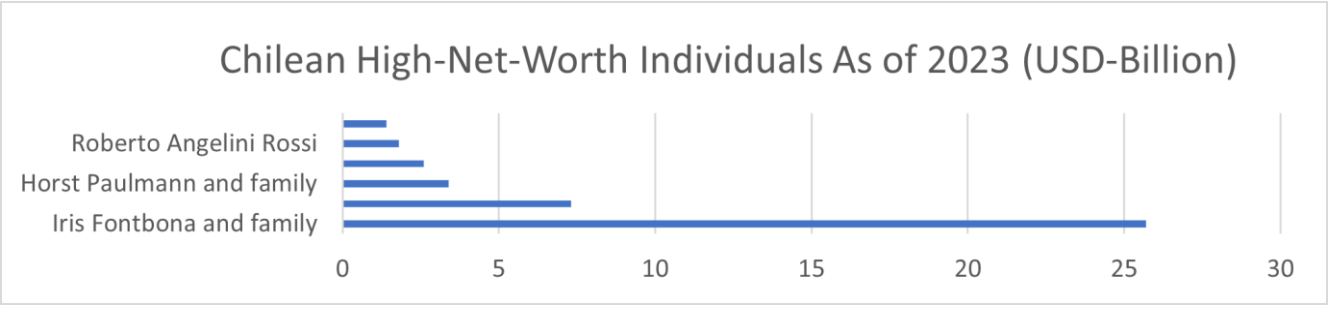
Bank Deposit

Bank Deposit. These deposits, including the banking system's checking deposit, saving deposit, and time deposit, offer individuals and businesses a secure means to store their funds while potentially earning interest. These deposits, backed by the financial institution and often considered a low-risk investment option, provide liquidity and stability to depositors' financial portfolios. Sabitha (2017) underscores the influence of bank deposits on stock market investments, demonstrating how interest rates affect capital market investment decision. Rudebusch and Williams (2009) noted that the yield curve consistently acts as a reliable predictor of recessions, even when interest rates are low. They highlighted that its forecasting ability remains strong regardless of short-term rate levels. Some of the major banks in Chile include Banco de Chile, BancoEstado, Banco Santander Chile, BCI, and other prominent financial institutions. Total fixed income deposits as alternative investment as of the year 2023 is estimated at USD 177.0 billion.

Mutual Fund Investment.

Investment in mutual fund also belongs to the alternative securities investment in Chile. The top three fund management companies were the BTG Pactual managing some USD 324.1 billion with a net asset value or NAV of USD 2 billion, followed by BICE Inversiones and Santander Asset Management, which contributed the largest asset management in Chile. Net asset value is basically the difference between total assets less liabilities of the mutual fund managed, both in current market price terms. In Chile, these mutual funds are mostly invested in fixed income securities like investment-grade bonds, equity, real estate and foreign investments with the highest grade, which are all diversified for a balanced fund. Most investors in these mutual funds are financial institutions, and high-net-worth individuals, which as of 2023, contributed a total of USD 42.2 billion, or representing some 13% in the Chilean mutual funds. Skolnik, O. (2023) reported in an open access publication that the total global private equity ranged from USD 140 to 150 trillion as of 2022. As a share of this amount, the Chilean high-net-worth wealth then represented a small portion of this global wealth. Some of the largest individuals' wealth in Chile are depicted in Figure 3, with the Iris Fontbona and family as the largest wealth (USD 25.7 billion).

Figure 3 The Global High-net-worth-individuals' Wealth for the Period As of 2023



Source: Statista chart (https://www.statista.com/statistics/958525/richest-chileans-by-wealth/)

Money Market Investment

Money market investment, most popularly known as the foreign exchange investment, in addition to the other securities investments as commercial papers (private and government securities), consists of the spot, forward, swap and option. Individual investors normally keep the former or spot money (USD, €, ¥, £, or others) as their investments, unlike the latter which are transacted by the banking and non-banking business

entities for hedging purposes or protecting from lower rate. With a total estimated foreign exchange transactions of USD 3,461 billion at the end of 2023, Chile was able to turn over some 13.6 times the country's central bank international reserves of USD254.6 billion with a 10 ½ months of import. The country IMF-real foreign exchange rate index was recorded at 115 as of the end of the first quarter of 2024 (2010 = 100). The US, China, Hong Kong, Japan and the E.U are Chile's largest trading counterparts. Refer to Table 2.

Table 2 Chile's Balance of Trade, International Reserve and Forex Trading (2023)

DESCRIPTION (In USD Billion)	Balance of Trade	Export	Import
Total exports and imports	-5.1	284.6	289.7
Latin-American			
United States	10.5%	17.2%	6.7%
China	-9.4%	15.9%	25.3%
Hong Kong	-3.9%	3.9%	0.0%
Japan	-2.1%	8.7%	10.8%
European Union	0.9%	7.7%	6.8%
International reserves	254.6	-	-
Estimated forex trading	3,461.0	-	-
Real forex rate index (%)	115	-	-
Reserves (months of import)	10.5	-	-
Forex trading turnover (%)	13.6		

Source: The International Monetary Fund (IMF) statistics

Bond Investment

Bond investment entails purchasing bonds issued by governments, municipalities, corporations, or other entities, which are debt instruments obligating the issuer to repay borrowed capital with interest at a specified future date. Investors in bonds receive regular interest payments and the repayment of principal upon maturity, which Christensen et. al. (2024) in the context of emerging bond market anticipated lower interest rate in spite of rising bond market in the pandemic; i.e. local bonds grew at much smaller CAGR of 4.6% since the pandemic compared to the foreign bonds at 29.9%, indicating that the appetite of the Chilean investors to this alternative bond investment seemed to be low. From the same source, it indicated that a drastic decline from 6.7% p.a. in October 2023 to 5.4% p.a. at the end of September 2024 occurred. Access to the bond market significantly shapes companies' investment strategies, with rated firms showing a tendency towards more acquisitions despite facing higher premiums and less favorable market reactions. This highlights the crucial role of debt market access in influencing investment decisions and their outcomes (Harford and Uysal, 2019). Refer to Table 3.

Table 3 Chilean Bonds Issuance During the Period of Covid-19 Pandemic During 2020-2023 (In USD-Billion)

Type of Bond	2023	2022	2021	2020	CARG%
Total bonds transactions	122.7	113.5	100.4	11	
Local Bonds	80.6	74.8	66.5	70.4	4.6
Foreign Bonds	42.1	38.6	33.9	19.2	29.9

Source: Banco Central de Chile

UNDERLYING THEORIES AND CONCEPTUAL FRAMEWORK

The analysis of the foundational theories and conceptual framework explains the effectiveness of strategic positioning in Chilean alternative securities investments in comparison to that of equity.

Underlying Theories

The analysis was centered on the foundational theories and conceptual framework governing the operational mechanisms of securities investment strategic positioning in Chile. The underlying theories explored the potential economic indicators, elucidating how these concepts operate and interact within the study's framework. Fundamentally, it represented a synergistic amalgamation of theories advanced by Michael Porter, Harry Markowitz, Andrew Crockett, and Romualdas Valkauskas. Refer to Table 4.

Table 4 Theoretical Foundations on the Strategic Positioning of the Securities Investment Portfolio.

Year	Author	Theory	Strategic Position
1980	Michael Porter	Brand equity development	Competitiveness
1952	Harry Markowitz	Efficient portfolio selection	Industrial position
1997	Andrew Crockett	Financial stability	Stability position
2013	Romualdas Valkauskas	Indicator standardization	Financial position

Competitive Position (CP)

It is fundamentally shaped by Michael Porter's competitive advantage concept, which suggests that consumer motivations, brand reputation, and product differentiation are key determinants influencing increased transactions and enhanced profitability within a business (Bunting, 2001). This view extends to the realm of perfect competition as highlighted by Erkut (2022). Stonehouse and Snowdon (2007) attribute the genesis of this concept to Porter, who originally framed it as competitive advantage. Regarding profitability, the critical benchmarks for strengthening competitive advantage include yield levels and capital gains (Porter, 2008). Additionally, essential expenditures that propel demand-side investments, leading to amplified output, are pivotal factors contributing to improved profitability, as emphasized by King (2022).

Industry Position (IP)

Industry Position (IP) in the investment sector involves the crucial consideration of the weight factor, essential for determining the optimal composition within the framework of the Markowitz efficient frontier theory (Tarrazo, 2008). The modern portfolio theory underscores the significance of striking a balance between a satisfactory level of profitability and minimizing covariance, thereby maximizing the investment position (Francis and Kim, 2013). Key metrics such as index performance and transaction growth serve as pertinent indicators for evaluating the industry position of a business at any given moment (Wang and Xia, 2012).

Financial Position (FP)

The assessment of Financial Position often relies on key metrics like the liquidity process and transaction multiplier effects, which are regarded as pivotal indicators in evaluating financial health. Valkauskas (2013) argued that without proper system of financial indicators financial position cannot be assessed and established. Cai and Jordan (2023) have particularly underscored the significance of these factors as a method to steer business direction effectively. Dequech (2022) has linked these measures to enhanced implementation within financial institutions, while also suggesting the use of an investment multiplier to further refine the evaluation of financial standing (Alfaro, Bloom, and Lin, 2024).

Stability Position (SP)

It Refers to the stability of transaction volume and lower price or return volatility as a measure of risk. Financial position is deeply embedded in the stability concept of Andrew Crockett (1997), who affirmed the importance of international capital market integration with domestic banking system that financial instability can be identified to develop better financial stability. In the further application of this stability position, Friede, Busch, and Bassen (2015) found that integrating ESG criteria can enhance financial stability and returns in financial markets, highlighting the relevance of these factors over relying solely on traditional stock indices. Regarding transaction volume, Scholes (2000) pointed out that investment strategies must be continuously reviewed, as they impact key aspects like returns, liquidity, asset management, and price volatility.

Conceptual Framework

Drawing upon the aforementioned theories, the study's conceptual framework illustrates how equity investment influences alternative securities investments in Chile, including the fixed income bank deposits, mutual funds, money market investments, and bonds. To understand the whole concept of the observation's framework, kindly refer to Figure 5, which would specify the strategies in the positioning.

RESEARCH PROBLEM AND QUESTIONS

Research Problem

The study aimed to depict the securities investment landscape in Chile by specifically addressing the core issue and the two primary research questions. Positioned as the fifth largest economy in Latin America in 2023 (GDPppp = USD 333.8 billion), trailing behind Brazil (GDPppp = USD 2,331.4 billion), Mexico (GDPppp = USD 2,017 billion), Argentina (GDPppp = USD 604.3 billion), and Colombia (GDPppp = USD 386.1 billion), the primary focus was to explore "what alternative securities investments, apart from equity investments, appeared to be the strategic preference of the Chilean population in Chile?" This formed the core problem statement of the observation.

Research Questions

- First Research Question: What factors were influential in prompting Chilean investors to participate in the country's alternative securities investments rather than equity investment?
- Second Research Question: How had the factors strategically positioned the alternative securities investments in contrast to the equity investments?

RESEARCH METHODOLOGY

The research methodology will detail the approach to the study, methods used for data collection and analysis, the identification of gaps in the existing literature, and the ethical considerations.

Method of Research

In the research methodology section, it will be elaborated that the XLStat software will be employed to analyze the factors influencing the strategic positioning of Chilean alternative investments. Some of the potential factors that could be considered include Tr Growth, IDX Growth, Yield, Gain, Multiplier, Liquidity, Tr/GDP, and Volatility.

Data Gathering and Analysis

The study utilized datasets gathered from the World Bank, The Chilean Central Bank, and the websites of local financial institutions such as the Santiago Stock Exchange (SSE). To evaluate the perception with

regard to the strategic positioning of equity investments, a team of economists with a comfortable knowledge on the Latin American financial-economic system, provided Delphi opinion on a scale ranging from 1 to 10, where 1 represented 'strongly not preferable' and 10 denoted 'extremely preferable'.

Factor Analysis was used to address the first and second questions, using the XLStat software. According to Zeynivandneshad et. al. (2019) the mathematical formulation of the factor analysis model is outlined as follows.: $\chi i = \lambda i1F1 + \lambda i2F2 + \ldots \lambda inFn + \varepsilon i$ for i = 1, 2, … n.

where:

χi = Observed variables, which refer to the investments under review.

$\lambda i\ j$ = Factor loadings (weight that relates each factor or F),

Fj = Common factors or latent variables with j = 1, 2, … n, and

εi = Errors or any unique factors.

Literature Gap

There appears to be a noticeable deficiency in the existing body of research concerning the strategic positioning practices within securities investment, especially concerning the investment approach of Chilean investors. Despite the availability of scholarly articles evaluating securities investments in various contexts, the literature focused on this specific aspect seems to be notably lacking.

Research Ethics

Initially, there was a strong adherence to ethical standards such as transparency, disclosure, objectivity, and logical progression. Subsequently, Millora and Still (2020) highlighted the significance of reflexive excellence in ethics, while Ozolinčiūtė, et al. (2022), originating from a tourism context, underscored the importance of upholding integrity in research related to the investment activities of Chilean investors.

First Question - Key Drivers Behind Chilean Investments

By employing factor analysis, the deterministic factors guiding the investment decisions of both Chilean and international investors in securities were explored using XLStat. The analysis revealed that these investors prioritized factors such as return volatility, transaction leverage, yield, and liquidity as crucial considerations in their investment strategies. Refer to Table 5

Table 5. Reproduced Correlation Matrix of Chilean Alternative Securities Investments.

	Tr Growth	IDX Growth	Yield	Gain	Multiplier	Liquidity	Tr/GDP	Volatility
Tr Growth	1.000	0.034	-0.597	-0.140	-0.918	0.294	-0.355	-0.784
IDX Growth	0.034	1.000	-0.262	-0.123	0.366	0.241	0.915	-0.405
Yield	-0.597	-0.262	1.000	-0.640	0.447	0.478	0.072	0.936
Gain	-0.140	-0.123	-0.640	1.000	0.087	-0.980	-0.169	-0.329
Multiplier	-0.918	0.366	0.447	0.087	1.000	-0.184	0.694	0.566
Liquidity	0.294	0.241	0.478	-0.980	-0.184	1.000	0.213	0.138
Tr/GDP	-0.355	0.915	0.072	-0.169	0.694	0.213	1.000	-0.019
Volatility	-0.784	-0.405	0.936	-0.329	0.566	0.138	-0.019	1.000

Source: XLStat Summary Statistics, August 15, 2024

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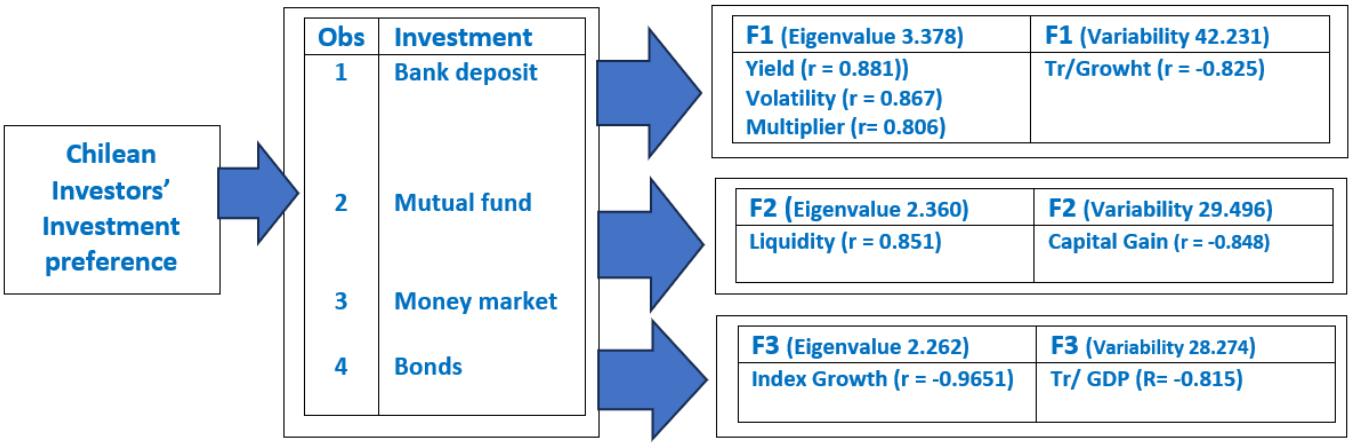
Utilizing the recalibrated correlation matrix for Chilean alternative securities investments, factor analysis refined the configuration of the three primary factors, namely F1, F2, and F3.

Initially, F1 highlighted that Chilean investor prioritized Yield (r = 0.881), Volatility (r = 0.867), and Multiplier (r = 0.806) as pivotal factors in their decision-making process for alternative securities over traditional Chilean equity investments. Conversely, the Transaction Growth component (r = -0.825) exhibited a negative correlation, indicating a lack of investor interest in this aspect concerning Chile's equity investments. In the context of emerging markets, Bekaert, Harvey, and Lundblad (2007) emphasized that volatility plays a key role in the risk management of portfolios, which makes it a crucial factor when assessing alternative investments. Furthermore, Ang, Hodrick, Xing, and Zhang (2006) observed that investors often respond to heightened volatility by shifting from equity to safer alternative securities, underscoring the importance of volatility in investment decisions beyond traditional markets.

Second, the F2 highlighted the significance of Liquidity (r = 0.851) as a critical factor when considering investments in alternative securities over Chilean equity investments. Conversely, the Gain Factor (r = -0.848) showed a strong negative correlation, indicating a marked lack of interest among investors in this specific aspect of Chile's equity markets. Baker and Wurgler (2006) specifically noted the impact of investor sentiment on stock returns, indicating that shifts in sentiment can significantly influence investment decisions across different asset classes. Furthermore, Bollen and Busse (2005) emphasized that a lack of knowledge regarding alternative investment options can hinder diversification efforts, as investors often remain focused on traditional assets like mutual funds. This mirrors the limited awareness of alternative securities investments in Chile, where investors may be less familiar with non-equity options compared to other markets.

Thirdly, in contrast to the other variables, the factor analysis for F3 revealed an inversely correlated factor, which was Tr/GDP (r = -0.841). This suggests that investors in Chile assess the scale of alternative securities when deciding whether to invest outside of the equity market. Put simply, Chilean investors evaluate alternative security investments when deciding not to engage in equity markets. Bianchi and Drew (2014) observed that in emerging markets, alternative investments like hedge funds, private equity, and real estate have seen considerable growth, providing diversification advantages over traditional equity markets. Refer to Figure 4

Figure 4 A Diagram of Chilean Investors' Preference Factors



Source: XLStat Summary Statistics, August 15, 2024

The Eigenvalues of the factors F1 to F3 were > 1, indicating more variance than a single observed variable; i.e. F1's Eigenvalue of 3.378 > 1, F2's Eigenvalue of 2.360 > 1, and Eigenvalue of 2.262 > 1. It suggests that the factors are valid for analysis, not to mention the Barlett's test significant result of $p < 0.001$. Please see Figure 4 for further details.

Second Question - Strategic Positioning Of Chile Securities Investment

In the examination of Chile's strategic stance on alternative securities investments, a behavioral analysis delved into the perceived assessments of each investment category, exploring the rationales guiding Chilean individuals towards these alternatives instead of traditional equity investments.

Leveraging the strategic positioning concepts introduced by David et al. (2023), the four-quadrant positioning matrix underwent adaptation within the investment-oriented contexts delineated in the foundational theoretical framework. Drawing from the perspectives of CP, IP, FP, and SP, indicators for Thailand's alternative securities and equity investments were formulated and calculated, as presented in Table 6, along with their corresponding perceptional evaluations rated on a 10-point scale.

Table 6 Strategic Positioning Metrics and Ratios Assessment of Chilean Alternative Securities Investments

Code	CRITERIA	Equity	FI Deposit	Mutual fund	Money Mkt	Bonds
IP	Transaction growth%	-24.8%	27.5%	74.1%	-91.2%	7.20%
IP	Index growth % (2013-20)	18.1%	159.2%	74.1%	-70.9%	-98.7%
SP	Transaction/GDP	0.128	0.535	0.191	0.034	0.177
SP	Yield variance/volatility	0.164	0.017	0.116	0.048	0.008
FP	Transaction multiplier (x)	0.372	0.245	0.024	-0.065	0.199
FP	Liquidity prospect	lesser liquid	highly liquid	liquid	highly liquid	liquid
CP	Yield %	7.3%	3.2%	4.5%	5.8%	2.8%
CP	Capital gain prospect%	9.6%	none	9.0%	-70.9%	9.4%

Source: Ratios gathered and analyzed from the Global Economy statistics

Based on the ratios assessment of the Global Economy, the perceptional rating from 1 to 10 was made by the financial economist team. Borg, E. (2018) supported the 1-10 range of scale due to its wider span of perception, particularly in the context of preference. In this context it is the preference of the Chilean investors to invest their funds in the alternative securities investment in case the equity investment is no longer attractive from their perspectives. Refer to Table 7.

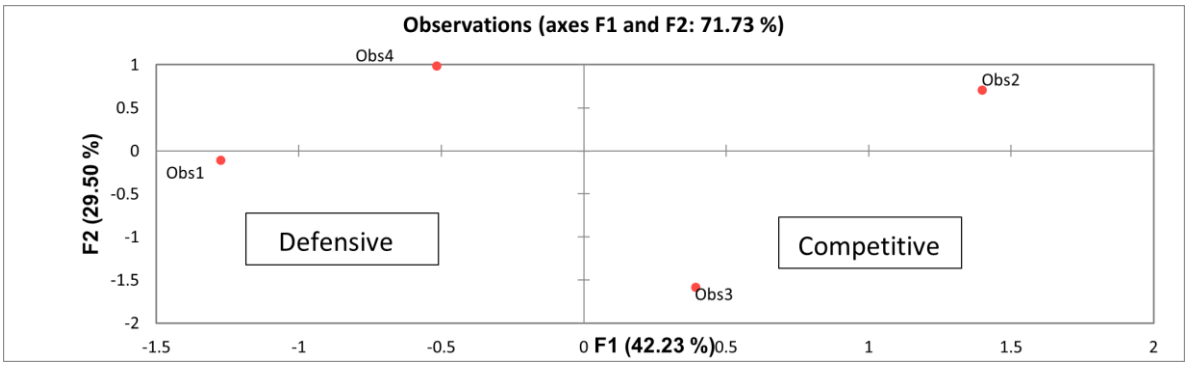
Table 7 Perceptional Rating of Chilean Investors in the Alternative Securities Investment.

Perception	IP (+)	IP (+)	CP (-)	CP (-)	FP (+)	FP (+)	SP (-)	SP (-)
	Tr Growth	IDX Growth	Yield	Capital gain	Multiplier	Liquidity	Tr/GDP	Volatility
Deposit	4	1	4	10	3	1	1	2
MF*	1	3	10	3	8	4	3	7
MM*	1	10	5	10	10	1	5	3
Bonds	5	10	5	3	4	5	4	1
Sum of (∑)	11	24	24	26	25	11	13	13

*MF = Mutual Fund. MM = Money market **A 10-scale rating described in the methodology

Based on the assessed perceptional ratings, the outcome of the XLStat factor analysis is reflected in the strategic positioning matrix shown in Figure 5. Observation 1 (Obs. 1) or bank deposit investment is positioned at the defensive quadrant. Observation 2 (Obs. 2) or mutual fund investment is positioned at the aggressive quadrant. Observation 3 (Obs. 3) or money market or foreign exchange currencies investment is positioned at the competitive quadrant as well. And observation 4 (obs.4) or bond investment is positioned at the conservative quadrant.

Figure 5 Strategic Positioning of the Chileans' Investments



SUMMARY OF FINDINGS, IMPLICATIONS, AND CONCLUSION

After scrutinizing the observations, the ensuing discoveries, recommendations for implications, and the ultimate conclusions regarding the trends in securities investments among Chilean investors and foreign investors in Chile spanning from 1997 to 2022 are outlined below.

Finding's Summary

First, factor analysis had evaluated Chilean investors' preference for the following:

Factor 1

Stock growth (Tr Growth) and volatility are both highly correlated with F1. This suggests that Factor 1 represents a situation where investors are seeking higher returns in the stock market but are aware of the associated risks, particularly volatility. Investors who are driven by F1 are likely to pursue high-growth, high-risk investments.

The multiplier effect is also strongly tied to F1, further reinforcing that investors are drawn to investments that have a significant market impact, often correlated with riskier assets that offer the potential for large gains.

Factor 2

Capital gains (Gain) and liquidity are the defining features of F2. Investors tied to F2 prioritize liquidity—meaning they favor easily convertible assets—especially when capital gains prospects are low. This suggests that they prefer to invest in safer, more liquid assets when market conditions are uncertain or when long-term growth is unclear.

There is also some relevance to dividend yield, indicating that in addition to liquidity, investors still consider stable returns like dividends, though this isn't the dominant factor.

Factor 3

Stock index growth (IDX Growth) and transaction volume as a percentage of GDP (Tr/GDP) are highly correlated with F3. When both stock index growth and transaction volumes are low, investors become less interested in the stock market. This points to a cautious approach where weak market performance drives investors to seek alternatives to equities.

Second, the same factor analysis also revealed the following strategic positioning of the securities investment if the outcome of equity investment didn't indicate satisfactory expectations:

- To aggressively invest in mutual fund designated as observation 2,

- To competitively invest in foreign exchange currencies designated as observation 3,
- To conservatively invest in bonds designated as observation 4, and
- To defensively invest in bank deposits designated as observation 1, respectively.

Conclusion

Upon examination of the results, the study asserts that the analysis has definitively shown the consistent diagnostic characteristics of Chile's marginal propensity of stock turnover (MPS) and marginal propensity to invest (MPI), particularly in the alternative securities investment, from 1997 to 2022. It is crucial for Chile to prioritize the promotion of innovative advancement in equity and alternative securities investments to bolster the nation's economic advancement, particularly given its status as one of the premier economies in Latin America

Recommendation Implications

The imperative implication demanding the undivided attention of the Chilean government involves fostering innovation in the realm of alternative securities investment, focusing on the following key areas:

- Enhancing the competitiveness of the Stock Exchange of Chile (SSE) by bolstering the number of listed companies.
- Elevating third-party bank deposit financing through enhanced competitiveness strategies.
- Attracting a broader spectrum of high-net-worth Chilean and foreign investors to engage in Chilean mutual funds.
- Strengthening foreign exchange transactions to fortify the country's real economy.
- Advancing the development of Chile's private sector equity trading uniformly by augmenting corporate bond financing, beyond the scope of government financing intentions.

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