

Empirical Analysis of Luxury Watch as an Investment Class in India (2018-2025)

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EXECUTIVE SUMMARY

Luxury Watches as Alternative Investments in Indian Portfolios (2018–2025)

This comprehensive study explores the growing relevance of luxury watches as viable alternative investments within the Indian financial ecosystem, juxtaposing their performance with traditional asset classes such as equities, bonds, and gold. Driven by rising disposable incomes, evolving consumer preferences, and a maturing luxury retail infrastructure, India's luxury watch market has experienced significant expansion. Once symbolic of opulence alone, luxury watches now represent a blend of emotional value, cultural identity, and financial potential.

Market Evolution and Structural Trends:

India's primary luxury watch market is organized, with a strong presence of exclusive boutiques and authorized retailers. Meanwhile, the secondary market projected to grow at a 10% CAGR is quickly gaining traction due to rising interest in certified pre-owned timepieces. This growth is bolstered by online platforms, authentication services, and an expanding base of high-net-worth individuals (HNIs) who increasingly see watches as "passion investments."

Investment Performance Comparison (2018–2025):

Using empirical data and financial modeling, two hypothetical portfolios were evaluated:

- Portfolio A (Traditional): 50% equities, 30% bonds, 20% gold
- Portfolio B (Diversified): 40% equities, 24% bonds, 16% gold, 20% luxury watches
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Portfolio A slightly outperformed in terms of absolute returns (CAGR ~11.11% vs. 10.64%), but Portfolio B exhibited noticeably lower volatility and a better Sharpe ratio, indicating stronger risk-adjusted performance. Luxury watches helped reduce portfolio drawdowns, offering smoother returns due to their weak correlation with stock market movements. Notably, gold was the top-performing asset (~192% total

return), followed by equities, while luxury watches yielded consistent, modest growth (~9–10% CAGR) with reduced volatility.

Strategic and Practical Considerations:

Despite their investment potential, luxury watches pose challenges such as:

- Limited liquidity and longer selling periods
- Authenticity concerns
- High transaction and maintenance costs
- Exposure to foreign exchange fluctuations (most watches are priced in USD)

These factors necessitate a strategic and informed approach when integrating watches into a financial portfolio. However, their low correlation with traditional assets makes them excellent diversification tools, particularly during economic downturns such as the COVID-19 pandemic, when they held or even appreciated in value.

Conclusion and Policy Implications:

This study affirms the role of luxury watches as credible alternative assets, particularly for Indian investors seeking stability alongside moderate returns. Though they may not match equity markets in growth potential, their risk-reducing attributes make them valuable additions to diversified portfolios.

The findings also suggest policy and retail implications:

- For investors: strategic allocation to luxury watches can improve risk-adjusted outcomes.
- For retailers: framing watches as hybrid assets (emotional + financial) can drive sales.
- For policymakers: streamlining import duties and improving secondary market transparency can foster market growth. For academics: this opens an underexplored domain for further financial and behavioural research.

In summary, luxury watches offer more than just aesthetic pleasure they provide tangible portfolio benefits when carefully selected and integrated with awareness of market realities.

CHAPTER 1: INTRODUCTION

With increasing disposable income and evolving consumer preferences, the luxury watch sector has grown significantly over the past decade. Once considered mere timekeeping instruments, luxury watches have become symbols of status, heritage, craftsmanship, and personal identity. This growth is not only driven by affluent consumers in traditional markets like Europe and North America but also by emerging economies in Asia-Pacific and the Middle East, where rising wealth and a growing appreciation for luxury goods have fueled demand.

Luxury watches have become coveted statement pieces, driven by the appeal of limited editions, intricate designs, and the prestige associated with renowned brands such as Rolex, Patek Philippe, Tag Heuer, and Omega.

The sector is further shaped by digital innovation, with brands leveraging e-commerce and social media platforms to reach younger, style-conscious consumers, while also embracing sustainable manufacturing practices and smart technology integration.

However, the industry faces challenges, including competition from smartwatches, counterfeit products, and

shifting consumer behavior, particularly among younger generations who prioritize sustainability and digital integration.

Overview:

The expanding middle and upper-middle-class populations are seeing increased disposable incomes, leading to a greater ability to purchase luxury goods. Indian consumers are becoming more fashion-conscious and are increasingly viewing luxury watches as status symbols and fashion accessories. There's a growing emphasis on personal branding and individuality, with luxury watches serving to express one's style and success.

The watch market in India was valued at Rs 13,500 Cr in FY20 and is expected to grow at a CAGR of 10.6% to reach Rs 22,300 Cr by FY25, on the back of factors like increased discretionary spend on the watches category, opening more organized channels of purchase like MBOs and online marketplaces & vertical specialists, increased penetration of smartwatches in mid to premium category, omnichannel market organization etc.

The Indian watch market is further segmented based on the basis of – Mass & Mid Segment , Fashion And Premium & Luxury.

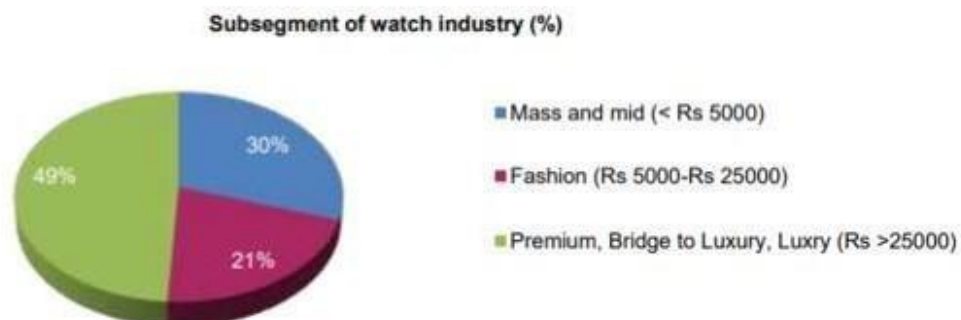


Fig 1.1: Axis Securities Report-Ethos: The timeline elegance

Mass and Mid (< Rs 5000): This segment represents the most affordable watches, catering to a broad consumer base. It constitutes 30% of the market.

Fashion (Rs 5000 - Rs 25000): This segment focuses on watches with a strong emphasis on style and design, targeting fashion-conscious consumers. It represents 21% of the market

Premium, Bridge to Luxury, Luxury (Rs > 25000): This segment encompasses high-end watches, including premium brands, those bridging the gap to luxury, and full-fledged luxury timepieces. It holds the largest market share at 49%.

The luxury watch segment in India, like its global counterpart, encompasses timepieces that transcend mere functionality, embodying a blend of high price points, esteemed brand heritage, exceptional craftsmanship, and the use of premium materials. These watches are often distinguished by intricate mechanical movements, precious metals like gold and platinum, and embellishments such as diamonds and sapphires. The perception of luxury watches in India is deeply intertwined with notions of prestige, success, and personal style. While globally, horological expertise and heritage might be the primary differentiators. In India, the

brand image and the status associated with owning a particular marque often hold significant weight among consumers. This inclination towards established and recognizable brands influences purchasing decisions and market trends within the Indian luxury watch landscape. The market is experiencing robust growth, driven by rising disposable incomes, urbanization, and a growing appreciation for global brands. Among the most coveted names are Rolex, Omega, TAG Heuer, and Cartier, which have established strong brand equity and are expanding their presence through both physical boutiques and digital channels.

1.1 Background:

Luxury watches have emerged as a notable form of alternative investment in India, attracting the attention of collectors, investors, and enthusiasts alike. The appeal of luxury watches lies not only in their craftsmanship and brand prestige but also in their potential for capital appreciation and portfolio diversification. In recent years, the Indian market has witnessed a growing interest in acquiring high-end timepieces from renowned brands, both for personal enjoyment and as investment assets.

The market for luxury watches as investments is still developing in India. Compared to more established asset classes, there is limited academic research and historical data available. Existing literature primarily consists of industry reports, market analyses, and insights from luxury watch specialists. As the affluent population expands and awareness of alternative investment opportunities increases, luxury watches are gradually being recognized for their investment potential. This evolving trend highlights the need for a deeper understanding of how the luxury watch market operates in India and the factors that influence the value and liquidity of these timepieces.

1. Market Share:

Brand	Market Share
Rolex	32% (2024)
Cartier	Below 5% (2021)
Omega	15% (2014)
TAG Heuer	10% (2014)

1.2 : Grand View Research. IMARC Group

- Rolex holds a significant market share, estimated at 32% of the total market value in 2024.
- Historically, around 2014, Omega was mentioned as having approximately 15% market share in the Indian luxury watch market.
- Around 2014, TAG Heuer reportedly held about 10% market share in the Indian luxury watch market.
- Cartier's market share in India's luxury jewellery market is almost certainly well below 5%, and likely in the low single digits-possibly 1-2% or even less.

2. Primary Luxury Watch Market:

India's primary luxury watch market is shaped by a well-structured retail system, where the vast majority—about 92%—of sales happen through formal channels. These include exclusive brand stores (EBOs), multi-brand retailers (MBOs), and certified online platforms. Swiss watchmakers like Rolex, Omega, and Patek Philippe lead the market, thanks to their legacy, craftsmanship, and brand prestige.

Exclusive brand outlets act as signature stores, offering a premium, personalized experience along with dedicated after-sales service. For example, Rolex has its boutiques in cities like Mumbai and Delhi that focus on delivering a sense of exclusivity and cultivating strong brand loyalty. Multi-brand outlets—such as those managed by Titan under the Tata Group—showcase a range of international and local brands to suit different tastes and budgets. While offline retail continues to dominate luxury watch sales, digital platforms are starting to gain popularity, especially with younger buyers who prefer the convenience of online shopping.

The primary luxury watch market in India operates through a structured supply chain that typically begins with international manufacturers. These manufacturers often work with exclusive distributors who import the timepieces into India. These distributors then supply the watches to various retail channels, including authorized multi-brand retailers and brand-owned boutiques. For instance, Ethos Watches and Helios are known to have exclusive distribution agreements with several international watch brands, granting them the right to be the primary sellers of those brands within India. These arrangements are mutually beneficial, providing brands with nationwide presence and allowing retailers to maintain higher profit margins while offering a buying experience that meets international standards.

3. Transition From Primary To Secondary Market:

The secondary luxury watch market in India, though nascent, is poised for significant growth. Valued at USD 618 million in 2023, the pre-owned luxury sector is projected to expand at a 10% CAGR, reaching USD 1.56 billion by 2032. This transition is fuelled by consumers' desire for affordability, sustainability, and access to discontinued or rare models. Organized platforms like Tata CLiQ Luxury have entered the pre-owned segment, offering certified products with authenticity guarantees and transparent pricing. These platforms mitigate risks associated with counterfeit goods, which are prevalent in the unorganized sector. The secondary market's growth mirrors global trends, where pre-owned luxury goods are increasingly viewed as viable investments rather than mere substitutes.

The secondary market involves the trading of pre-owned or vintage luxury watches through platforms like Chrono24, auction houses, or specialized retailers. This market is gaining traction due to its investment potential, accessibility, and appeal to younger demographics like Millennials and Gen Z. Globally, the

secondary market for luxury watches grew by 20% in 2022, reaching CHF 25 billion, and is projected to surpass the primary market by 2033 with a CAGR of 12%.

The role of luxury watches as investment assets further facilitates their transition into the secondary market. As certain brands and models appreciate over time, owners may eventually decide to sell their timepieces to realize these capital gains. Platforms like Watch Charts and Chrono24 provide valuable resources for tracking the historical performance and current market value of various luxury watch models, aiding both buyers and sellers in making informed decisions.

Consumer motivations for engaging with the secondary market are varied. Cheaper prices compared to new watches are a primary attraction for many. The ability to obtain desired models with immediate availability, bypassing the often-lengthy waiting periods in the primary market, is another significant draw. The secondary market also provides access to unique, vintage, and discontinued models that are no longer obtainable through authorized retailers. Moreover, a growing segment of consumers is motivated by the principles of sustainability, opting for pre-owned items as a more environmentally conscious choice.

4. Major Players in the Luxury Watch Market:

Players	Type	Key Strengths	Focus Area
Chrono24	Online Platform	Global inventory, buyer protection	Broad market, all price ranges
WatchBox	Online Platform	Authentication, warranties, financing	Premium pre-owned watches
Luxepolis	Online Platform	Local expertise, affordability	Entry-level to high-end pre-owned
Ethos (Pre-Owned)	Retail/Boutique	Trusted brand, trade-in programs	Certified pre-owned
Kapoor Watch Co.	Retail/Boutique	Personalized service, reputation	High-end pre-owned, vintage
Sotheby's/Christie's	Auction House	Rare and collectible watches	Ultra-luxury, vintage
AstaGuru	Auction House	Local auctions, curated catalogues	High-value pre-owned

1.3 *Europa Star, Watchmaking*

Global Swiss brands continue to dominate India's luxury watch landscape. Rolex, Omega, and Ademar's Piguet collectively accounts for over 60% of the market share in the super-luxury segment. Their success is attributed to meticulous brand positioning, limited-edition releases, and collaborations with celebrities and designers.

Domestic players like Titan and emerging brands such as Jaipur Watch Company are also gaining traction. Titan's Helios chain, for example, bridges the premium and luxury segments, offering brands like Tag Heuer and Longines alongside its in-house collections. These players are increasingly adopting sustainability

initiatives, such as eco-friendly packaging and ethical sourcing, to align with consumer expectations.

5. Organized Vs Unorganized Market:

The luxury watch market in India is a dynamic and rapidly evolving sector, with both organized and unorganized segments playing significant roles. The organized sector is characterized by authorized retailers, brand-operated boutiques, and established multi-brand stores that operate with proper licensing, invoicing, and after-sales service infrastructure. The unorganized sector includes independent operators within the grey market and potentially unauthorized online sellers. Estimating the precise market size contribution of each sector within the luxury segment is challenging due to the inherent nature of the unorganized market. However, data from the overall watch market provides a general indication of the significant presence of the unorganized sector.

The organized sector is growing rapidly due to rising disposable incomes, urbanization, and increasing brand consciousness among Indian consumers.

Aspect	Organized Sector	Unorganized Sector
Market Share	Growing rapidly, dominates luxury segment (64% of watch sales by 2025).	Smaller but notable, especially in pre-owned and grey markets.
Consumer Base	HNWIs, brand-conscious Gen Z and millennials, urban consumers.	Price-sensitive buyers, semi-urban/rural consumers, pre-owned watch buyers.
Distribution Channels	Exclusive boutiques, multi-brand stores, e-commerce platforms.	Local vendors, grey-market dealers, informal networks.
Pricing	Premium pricing with authenticity and after-sales service.	Lower prices, often due to counterfeit or pre-owned watches.
Trust and Authenticity	High trust due to authorized dealerships and brand backing.	Low trust due to counterfeit risks and lack of after-sales support.
Growth Drivers	Rising affluence, TEPA duty reductions, digital expansion.	Pre-owned market growth, price sensitivity, local adaptability.
Challenges	High operational costs, competition from global brands.	Counterfeit issues, declining share due to organized sector growth.
Future Outlook	Strong growth (CAGR 4.8–5.7% through 2030) with focus on digital and non-metro markets.	Declining share but sustained by pre-owned demand and rural markets.

1.4 Own Analysis

According to a Deloitte report, the Indian luxury goods market, including watches, is valued at ~\$7 billion in 2024 and is projected to reach \$30 billion by 2030, with organized retailers driving much of this growth. Retailers like Ethos Watches have expanded the reach of luxury brands by bringing multiple brands under one roof and hosting events like the GPHG exhibit in 2022. The opening of luxury retail spaces like Jio World Plaza in Mumbai has boosted the organized sector, hosting brands such as Cartier, Panerai, and IWC Schaffhausen.

In 2023, the organized sector accounted for a significant portion of luxury watch sales, with 64% of watch sales attributed to the luxury segment by 2025. The sector is projected to grow at a CAGR of 4.8–5.7% through 2030, driven by exclusive boutiques, flagship stores, and collaborations with local retailers in cities like Mumbai, Delhi, Bangalore, and Chennai.

6. Buying And Selling In the Secondary Market:

The secondary luxury watch market in India, encompassing pre-owned and vintage timepieces, is a rapidly growing segment driven by increasing demand for high-end watches, digital platforms, and shifting consumer preferences. The global pre-owned luxury watch market was valued at USD 24.38 billion in 2023 and is projected to grow at a CAGR of 9.2% from 2024 to 2030. In India, the luxury watch market (including pre-owned) is part of a broader \$7 billion luxury goods market, expected

to reach \$30 billion by 2030. India's secondary market is gaining traction due to rising affluence, with the millionaire population expected to double to 1.6 million by 2026, and a growing appetite for status symbols and investment-grade assets. Over 50% of Indian consumers are open to buying pre-owned watches for cost savings and sustainability.

Luxury watches, especially from brands like Rolex, Patek Philippe, and Ademar's Piguet, often retain or appreciate, with some models fetching up to 200% of retail prices on the secondary market. Limited production runs and long waitlists for new models from top brands drive demand for pre-owned watches, especially discontinued or rare models. Brands like Rolex, Patek Philippe, Ademar's Piguet, and Omega is safest for value retention. In India, Rolex dominates due to global recognition, with stainless-steel models never depreciating since the 1970s. Grey-market dealers in India's unorganized sector offer lower prices but pose high counterfeit risks. Buying offers cost savings, access to rare models, and sustainability, but requires diligence to avoid counterfeits, especially in the unorganized sector. Selling provides liquidity and profit potential, particularly for high-demand brands, but demands transparency and strategic timing.

Secondary Market Dealers focus on niche markets, consignment sales, or private transactions, with some presence in India ex- Heritage Watch Dealers, Grey-Market Dealers and Local Vendors.

1.2 Problem Statement

Around the world, luxury collectibles like high-end watches are gaining attention as investment options. But in India, we're still in the early stages of understanding how these assets actually perform. Most studies use data from big international auctions or Swiss exports-information that doesn't really capture what's happening in the Indian market.

There's almost no research using real Indian data to see how luxury watches stack up as investments, especially when compared to more familiar assets like stocks, gold, or government bonds. On top of that, important factors like India's high import duties, GST, and the ever-changing USD/INR exchange rate can have a big impact on the value of these watches, but these aren't factored into most studies.

Plus, Indian investors are changing: more high-net-worth individuals (HNIs), ultra-high-net-worth individuals (UHNIs), and younger, millennial investors are looking for new ways to grow their wealth. The Indian resale market for luxury watches is also still developing, with little transparency or standardization. All of this means there's a big gap in our understanding that needs to be filled.

Hypotheses:

- We expect that luxury watches, once we adjust for Indian taxes and currency changes, will show a different risk and return profile compared to traditional investments.
- We believe that including luxury watches in a portfolio with stocks, gold, and bonds will improve the overall risk-adjusted returns, thanks to their unique performance and low correlation with other assets.
- We anticipate that the Indian resale market for luxury watches will have its own set of challenges-like lower liquidity and higher transaction costs-that could affect their appeal as investments.

Problem Statement: Luxury watches are becoming more popular as investment assets around the world, but in India, we don't really know how well they work as part of an investment strategy. The research that does exist doesn't consider the unique aspects of the Indian market-like high taxes, currency fluctuations, or the fact that our resale market is still finding its feet. We also don't know how adding luxury watches to a typical Indian portfolio might change things for investors.

This study aims to bridge that gap by using real Indian data to analyze how luxury watches perform as investments, how they fit into a broader portfolio, and what challenges investors might face in the Indian market. The goal is to give investors, wealth managers, and policymakers a clearer picture of whether luxury watches deserve a place in Indian investment portfolios-and what to watch out for if they do.

1.3 Research Objectives of the Study

- To compute and analyze the returns of luxury watches over the period 2018 to 2025.
- To evaluate the performance of traditional assets (Gold, BSE Sensex, and Indian 10- Year Treasury Bonds) over the same time horizon.
- To examine the correlation between traditional assets and luxury watches as an alternative asset class.
- To analyze portfolio performance with varying asset allocation mixes including luxury watches.
- To measure the risk-adjusted returns using Sharpe Ratio and assess portfolio volatility using standard deviation.
- To evaluate if including luxury watches improves the diversification and overall performance of a traditional portfolio.

1.4 Scope of Study

This study is designed to empirically analyze the performance and diversification potential of luxury watches as an alternative investment vehicle in India, specifically in comparison to traditional asset classes such as equities, bonds, and gold, over the period 2018-2025. The scope is defined by the following dimensions:

- **Asset Classes Covered:** The analysis will include luxury watches, gold, the BSE Sensex (representing equities), and Indian 10 Year Treasury Bonds (representing fixed income). This allows for a comprehensive comparison between tangible luxury assets and conventional investment vehicles.
- **Portfolio-Level Perspective:** Unlike previous research that has focused on individual asset performance, this study will attempt a portfolio-level analysis. It will evaluate how the inclusion of luxury watches in various asset allocation mixes affects overall portfolio returns, risk, and diversification.
- **Empirical and Data-Driven Approach:** The study will use quantitative methods to compute and analyze returns, risk-adjusted performance (using Sharpe Ratio and standard deviation), and the correlation between luxury watches and other asset classes. This empirical approach ensures objectivity and robustness in findings.
- **Macroeconomic Adjustments:** The research will integrate India-specific macroeconomic factors such as import duties, GST, and exchange rate fluctuations, which are especially relevant for tangible assets like luxury watches.
- **Secondary Market and Investment Behavior:** The study will also consider the evolving secondary market dynamics for luxury watches in India, as well as changing investor behaviors in response to market and regulatory developments.
- **Time Horizon:** The period of analysis (2018-2025) captures recent market trends, including the impact of global disruptions like the COVID-19 pandemic, providing contemporary relevance.
- **Geographical Focus:** The research is tailored to the Indian context, ensuring that all findings, recommendations, and implications are directly relevant to Indian investors, policymakers, and market participants.

CHAPTER 2 : LITERATURE REVIEW

Sno.	Title	Authors	Year	Journal	Purpose	Methods	Key Findings
1	Conceptualizing luxury buying behavior: the Indian perspective	Varsha Jain	1905	Journal of Product & Brand Management	To study young Indian consumers' attitudes toward luxury brands and how demographics influence their perceived luxury values.	Quantitative	Luxury consumption reflects status and self-indulgence, driven by quality, exclusivity, and social value, with preferences shaped by age, occupation, and lifestyle.
2	Second hand luxury: consumer motivations behind the purchase of pre-owned luxury goods: the case of luxury watches	Baumann, Yves	2021	Global Alliance of Marketing & Management Associations	Consumers are driven by value, rarity, sustainability, and brand prestige when acquiring pre-owned luxury watches.	Qualitative	The study highlights diverse consumer motivations and five key market drivers behind the mainstream growth of the pre-owned luxury watch sector, offering valuable insights for industry adaptation.
3	ANALYSING THE PERSONAL LUXURY GOODS MARKET IN INDIA	DESIREE GONSALVES	2016	International Business Research Conference	The report explores the rapid rise and unique challenges of India's personal luxury goods market-spanning fashion, accessories, jewelry, and perfumes-amid shifting global dynamics and evolving consumer profiles.	Qualitative	Luxury brands in India are driving growth by focusing on digital outreach to youth, expanding into emerging cities, and offering localized, affordable luxury products.
4	A STUDY ON CONSUMPTION OF LUXURY BRAND MARKET IN INDIA	Mehul Kumar Jain, Mohammed Khizer, Dr. Raji Rajan	2023	Rabindra Bharati University Journal of Economics	The study explores the motivations driving luxury product consumption among Mumbai's youth and its impact on their individual personalities.	Qualitative and Quantitative	The study confirms that quality, price, status, and social influence drive luxury purchases, though limited by a low response rate and highlighting the need for further research.
5	A Study on the Factors Influencing Online Shopping Behaviour of Consumers Toward Luxury Products in Kerala	Nampoothiri, S Adarsh	2021	International Journal of Management and Technology Studies	The study explores the factors influencing Kerala consumers' online purchasing behavior toward luxury products, aiming to help brands effectively engage the market through e-	Quantitative	Exclusivity, brand reputation, and convenience drive online luxury purchases, but concerns over authenticity, trust, and payment methods remain significant barriers.
6	Luxury watches: a viable alternative investment or mere speculative trend? An analysis of two decades before the pandemic.	Simon Ulmer, Patrick Schmid and Andreas Widenhorn	2012	Journal of Investment Strategies	The purpose of this study is to investigate the investment performance of collectible watches traded on the secondary market over the period 1999-2020.	Qualitative	From 1999 to 2020, collectible watches outperformed other investments, offering strong returns with low risk, particularly in high-end brands like Patek Philippe.
7	An Empirical Analysis of the Performance of Luxury Watch Portfolios among High-Net Worth Individuals in India During the COVID19 Pandemic.	Pia Kothari, Abdul Rasheed, Dr. Jharna Kalra	2024	International Journal for Multidisciplinary Research	The purpose of this report is to evaluate whether luxury watches owned by high-net-worth individuals (HNIs) in India are viable alternative investments, particularly during economic downturns like the COVID-19 pandemic.	Qualitative and Quantitative	The study surveyed 57 high-net-worth individuals in Mumbai, primarily male business owners and corporate professionals, with an average age of 54 and a net worth of ₹75-100 crores.
8	Tick-Tock: Time to Invest?	Gustav Sjöstedt and Sara Mannerford	2023	Linnaeus University	The purpose of this study is to analyze the comparative performance of investing in luxury watches versus traditional assets such as equities and bonds.	Quantitative	The study uses hedonic pricing to analyze luxury watch prices and compares their performance with financial indices using key metrics.
9	Time is Money: an Investment in Luxury Watches	Jean-Philippe Weiskopf and Philippe Massot	2025	SSRN	The study analyzes the risk-return characteristics of luxury watch investments and compares investing in physical watches with stocks of watch manufacturers.	Quantitative	Luxury watches offer diversification and risk reduction, with benefits seen in physical watches, not stocks.
10	Luxury Watches as an Alternative Investment – A Qualitative Study on Watch Specialists' Perspectives in Finland	Kylmämarkula, Martin	2023	Arcadia University of Applied Sciences	This study explores the growing role of luxury watches as alternative investments in Finland by examining investor motivations, market dynamics, and investor profiles.	Qualitative	The study reveals that Finnish luxury watch investors are driven by both portfolio diversification and passion, with a market characterized by limited supply, evolving trends, and distinct investor profiles ranging from seasoned financiers to emerging

Fig 2.1: Journals And Reports

In recent years, the way Indians view and buy luxury goods-especially watches-has been changing rapidly. More and more, people aren't just buying luxury items for the sake of owning something expensive. Today's consumers, particularly young professionals and urban youth, see luxury as a way to express their personality, signal their success, and enjoy something truly special and unique.

Studies show that when Indians buy luxury goods, it's not just about price or brand. Emotional satisfaction, the feel and look of the product, and how it sets them apart from others matter just as much. For many, especially professionals, the quality and distinctiveness of a luxury watch or accessory are key motivators. In cities like Mumbai, luxury is as much about self-expression and lifestyle as it is about status. Friends, family, and social circles also play a big role in shaping these choices.

But it's not just about buying new luxury items anymore. The second-hand or pre-owned luxury market-especially for watches-is booming. Research from Europe has shown that people are drawn to pre-owned luxury watches for several reasons: they're more affordable, often just as durable, and can even be seen as smart investments or collector's items. The rise of online platforms has made it easier for Indians to buy and sell luxury watches, turning them from mere status symbols into legitimate investment assets.

The Indian luxury market itself is evolving fast. Millennials and Gen Z are driving demand, not just in big cities but also in smaller towns, thanks to higher incomes and better access to digital shopping. Brands are responding by tailoring their products and marketing to local tastes-a strategy known as "glocalization." Government initiatives like "Make in India" are also helping. Still, there are challenges: infrastructure, economic ups and downs, and concerns about the authenticity of luxury goods bought online. Many shoppers want the convenience of digital shopping but also expect genuine products, secure payments, and good after-sales service.

When it comes to investing, luxury watches are starting to get serious attention. Global studies show that collectible watches can deliver impressive returns-sometimes even beating traditional investments like stocks or art. They tend to be less volatile and are becoming easier to buy and sell. However, there's a big gap when it comes to research focused on India. We still don't know enough about how luxury watches perform as part of an Indian investment portfolio, or how they might help investors manage risk and boost returns.

Evolution of Luxury in India

Luxury in India has come a long way. Once, it was the domain of royalty and the ultra- rich, defined by rarity, exclusivity, and price. Today, luxury is much more accessible and personal. For modern Indian consumers-especially the youth-luxury is about expressing individuality, enjoying unique experiences, and finding emotional satisfaction. It's not just about showing off; it's about finding something that fits your lifestyle and values. Many Indians are now more conscious about what they buy, caring about sustainability, thoughtful design, and lasting value.

People are drawn to luxury for many reasons:

1. **Functionality:** Quality, craftsmanship, and the heritage of brands-especially in watches- are big attractions.
2. **Social Factors:** Luxury goods are still a way to signal status, stand out, and earn recognition from peers.
3. **Emotional Appeal:** There's a sense of reward, pride, and personal style that comes with owning something special.
4. **Investment:** More and more, Indians are considering the resale value and long-term potential of luxury items, especially as the second-hand and collectible markets grow.

These motivations are especially strong among young professionals and people in smaller cities, who balance aspiration with smart financial choices.

How Indians Buy Luxury: The New Behaviors

1. **Urban Shoppers:** In cities like Mumbai and Kerala, buyers care about authenticity, quality, and the convenience of online shopping.
2. **Young Professionals & Students:** They look for unique, limited-edition pieces that stand out and serve a purpose.
3. **Tier 2/3 Cities:** These emerging markets are fueled by rising aspirations and growing online access.

E-commerce is making luxury more accessible, but trust is still a concern-shoppers want to be sure they're getting the real deal and good service. The second-hand market is also growing, as people look for more affordable, sustainable options and easier access through digital platforms.

Luxury watches are now being seen as a serious investment option in India:

1. **Strong Returns:** Collectible watches have shown real returns of around 5.5% a year, often beating traditional assets.

2. Brand Power: Iconic brands like Rolex and Patek Philippe hold their value exceptionally well.
3. Resilience: During tough times like the COVID-19 pandemic, watches sometimes outperformed stocks and gold, especially in India.
4. Who's Investing: Wealthy individuals, collectors, and those with an emotional connection to **watches** see them as a store of value and a way to diversify their portfolios.
5. Motivations: Emotional attachment, a sense of safety, and the potential to resell at a profit all play a role.

Still, how Indians approach watches as investments hasn't been deeply studied, which is a key reason for your research.

The Challenges Ahead

Authenticity: Worries about fakes make people cautious about buying expensive items online.

Awareness: Many Indians still don't see watches as investment assets. Infrastructure: Retail options are limited, especially outside big cities.

Secondary Market Trust: The resale market is growing but remains informal and unregulated, making some buyers skeptical.

ROI Skepticism: For many, luxury still feels like an expense, not an investment.

These challenges show why better information, digital trust, and financial education are needed to help more Indians see luxury-especially watches-not just as a symbol of status, but as a smart, rewarding part of their financial future.

Key Theories (As Discussed in the Literature)

1. Kapferer's Luxury Branding Theory : Emphasizes symbolic, hedonic, and social dimensions of luxury beyond affordability and functionality. This theory underpins the understanding of how luxury watches offer value as both lifestyle and investment products.
2. Theory of Planned Behavior (TPB): Referenced in studies like Singh & Bharti (2019), it explains consumer intentions to purchase luxury goods based on attitudes, subjective norms, and perceived behavioral control.
3. Conspicuous Consumption Theory (Veblen Effect): Repeated across multiple papers, this theory describes how consumers derive utility from the social status conveyed by luxury goods, especially visible ones like watches.
4. Maslow's Hierarchy of Needs (Esteem and Self-Actualization): Highlighted in Deloitte and ASSOCHAM reports, it links luxury consumption to higher-order needs like esteem, achievement, and self-expression.
5. Value Perception Framework (Functional, Emotional, and Symbolic Value): Referenced in Indian market studies, especially Srivastava & Kapoor (2020), this framework explains multi-dimensional motivations behind luxury purchases, relevant for understanding investment rationale.

Research Gap

Despite growing global interest in luxury collectibles as viable investments, the Indian academic and empirical landscape on this subject remains sparse. Specifically:

- Lack of Empirical Data on Indian Luxury Watch Market: Most existing studies (e.g., Milana & Wu, 2023; Auer, 2015) use global auction data (e.g., Sotheby's, Christie's) and Swiss export indices, which may not fully reflect the Indian market dynamics.
- Neglect of Portfolio Integration Studies in India: There is no known Indian study that integrates luxury watches into a diversified investment portfolio alongside traditional assets like Sensex, gold, or bonds.
- Macroeconomic Variables Unaccounted For: Indian import duties, GST, and exchange rates significantly affect the resale value and market demand for luxury watches. No study adjusts for these macroeconomic parameters in pricing models.
- Changing Investor Demographics: The rise of HNIs, UHNIs, and millennial investors in India is creating new preferences in investment behavior, which existing literature has not captured adequately.
- Unexplored Secondary Market Dynamics in India: The Indian resale market, though growing, is not yet standardized. There is a lack of data on transaction liquidity, bid-ask spreads, and long-term holding incentives.

Relevance to Stakeholders

The significance of this study extends to a wide range of stakeholders in the Indian financial and luxury goods ecosystem:

1. Investors and High-Net-Worth Individuals HNIs
 - Informed Decision-Making: The study provides data-backed insights into the risk- return profile and diversification benefits of luxury watches, enabling investors to make more informed asset allocation decisions.
 - Portfolio Optimization: By quantifying how luxury watches interact with traditional assets, investors can optimize portfolios for higher returns and lower risk.
2. Wealth Managers and Financial Advisors
 - Advisory Framework: The empirical findings offer a robust framework for advising clients on the inclusion of alternative assets, such as luxury watches, in their investment portfolios.
 - Risk Management: Analysis of risk-adjusted returns and portfolio volatility helps advisors tailor strategies to client-specific risk appetites.
3. Luxury Watch Brands and Retailers
 - Market Positioning: Understanding the investment appeal of luxury watches allows brands to position their products not only as status symbols but also as credible investment assets.
 - Customer Engagement: Insights into secondary market dynamics and investor motivations can inform after- sales services, certification programs, and resale initiatives.
4. Policymakers and Regulators
 - Policy Formulation: The study highlights the impact of regulatory factors (import duties, GST, currency fluctuations) on luxury asset pricing, supporting evidence- based policy decisions.
 - Market Transparency: Findings may prompt initiatives to enhance transparency, standardization, and regulation in the luxury watch secondary market.
5. Academics and Researchers
 - Literature Contribution: By addressing a significant research gap, this study lays the groundwork for

future research on alternative assets and tangible investments in India.

- **Methodological Advancement:** The portfolio-level, data-driven approach sets a precedent for similar studies in other asset classes and emerging markets.

6. General Consumers and Collectors

- **Investment Awareness:** The research increases transparency and awareness regarding the investment potential and risks associated with luxury watches, aiding better purchase and collection decisions.

Conclusion: Why This Study Matters

Luxury watches are no longer just about style or status—they're rapidly gaining ground as a serious investment choice for Indian buyers, much like gold or stocks. In recent years, the Indian luxury watch market has seen remarkable growth, fueled by rising incomes, changing consumer preferences, and the influence of global brands and digital platforms. Notably, certain watches have delivered impressive returns, sometimes even outpacing traditional assets, especially when accounting for the rupee's depreciation against the dollar.

However, investing in luxury watches is not as straightforward as buying shares or gold. The Indian market has unique challenges: import duties, GST, and currency fluctuations can all impact the true return on investment. The secondary (resale) market is growing, but issues like liquidity, transaction costs, and price transparency remain. Despite these hurdles, the potential for strong returns and portfolio diversification is attracting both seasoned investors and newcomers.

Plan of Action: What This Study Will Do

To bring clarity and actionable insights to this evolving landscape, this study will:

Collect and analyze historical price data for luxury watches (2018–2025) and compare their performance to gold, the BSE Sensex, and Indian government bonds.

Calculate key investment metrics like returns, volatility (standard deviation), and Sharpe Ratios for each asset class, so investors can see not just how much each asset grew, but also how much risk was involved.

Evaluate how luxury watches move in relation to traditional assets by building correlation matrices, helping investors understand if watches can truly diversify their portfolios.

Simulate different portfolio combinations, including and excluding watches, to see how adding this alternative asset affects overall returns and risk.

Adjust luxury watch returns for real-world Indian factors—including import duties, GST, and USD/INR exchange rates—so the results reflect what an Indian investor would actually experience.

Summarize all findings into practical, data-backed recommendations for investors, wealth managers, and academics interested in luxury watches as an alternative asset.

Significance: The Impact of This Research

This will be the first India-focused academic study to rigorously examine luxury watches as investment-grade assets. The research aims to:

Expand the definition of alternative investments in India, moving beyond just real estate and gold to include tangible, globally recognized assets like luxury watches.

Provide new strategies for portfolio optimization, showing how luxury watches can fit into a balanced investment plan.

Highlight the growing importance of the resale and digital watch markets, which could encourage better regulation, transparency, and new investment opportunities.

Promote financial literacy and investor education, especially in smaller cities where the potential of luxury watch investments is underappreciated.

Lay the groundwork for future research into other tangible luxury assets-such as art, handbags, or wine-within the Indian context.

By demystifying the risks and rewards of luxury watch investing in India, this study will empower investors to make smarter, more informed decisions, and help shape the future of alternative investments in the country.

CHAPTER 3: RESEARCH METHODOLOGY

Research Design

This study leverages a mixed-methods research design that integrates financial modeling with behavioral finance insights. The approach ensures both empirical rigor and contextual relevance. By using both historical data and market sentiment, the research aims to create a comprehensive framework for evaluating luxury watches not only as symbols of status but also as viable financial instruments.

The descriptive nature of this research allows for comparative insights, identifying performance gaps and synergies between luxury timepieces and conventional assets such as stocks, bonds, and gold. This multifaceted strategy addresses the core research question: can luxury watches serve as both emotional artifacts and dependable investment vehicles within the Indian financial ecosystem?

This project follows a dual methodology framework combining both quantitative and qualitative approaches to provide a complete understanding of how luxury watches perform compared to traditional assets in India. The research is descriptive in nature and built on secondary data, carefully selected and analyzed to support decision-making, trend identification, and asset comparison.

The core aim of the study is to examine if luxury watches, when considered as an investment, offer significant value in terms of returns, diversification, and portfolio performance especially in comparison to equities, bonds, and gold.

Quantitative Research Methodology

We further enhanced the quantitative component by creating simulated investment portfolios that included varying allocations of luxury watches to assess their effect on overall portfolio performance. A Monte Carlo simulation was performed to forecast the future value range of these portfolios under different economic scenarios.

To test the robustness of results, stress tests were conducted simulating market downturns, including pandemic-like disruptions and inflation shocks, assessing how luxury watches compare with equities and gold during crisis periods.

Data Collection (Quantitative)

We used secondary market data for the following traditional and alternative asset classes between 2018 and 2025:

- Equity: BSE Sensex (average annual closing prices)
- Gold: LBMA global gold rates adjusted for India (import duty, GST, forex)
- Bonds: Indian 10-Year Treasury bond (CAGR-based return)
- Luxury Watches: Average resale value appreciation of key models from Rolex, Omega, TAG Heuer, and Cartier, sourced from Chrono24 and Watch Charts.

All data was collected from verified online platforms, government portals (e.g., RBI, SEBI), and brand marketplaces (Ethos Watches, Kapoor Watch Co.).

Tools & Techniques Used

- CAGR (Compound Annual Growth Rate): To evaluate asset performance over time
- Sharpe Ratio: To measure risk-adjusted return
- Standard Deviation: To analyze portfolio volatility
- Correlation Coefficients: To examine diversification benefits between asset classes
- Portfolio Mix: Performance comparison using traditional (50% equity, 30% bond, 20% gold) vs. blended portfolio (including 20% luxury watches).

Data Processing

All data was normalized in INR and annualized for consistency. The average return for each asset was calculated using year-wise data, and Sharpe Ratio was applied using a risk-free rate of 6.5% (based on India's T-bill rates). Correlation matrices were generated to study inter-asset relationships, particularly between luxury watches and equities/gold.

Qualitative Research Methodology

The qualitative insights were enriched by thematic coding and sentiment mapping. This involved analyzing consumer interviews using NVivo to extract dominant psychological and cultural drivers. We also compared watch-buying behaviors across different income groups and geographic regions in India to identify market segmentation.

The influence of social media trends, celebrity endorsements, and heritage marketing was examined through content analysis of campaigns from brands like Rolex and Patek Philippe.

Approach

To supplement our financial analysis, we conducted a qualitative study to understand the perception, motivation, and behavior behind luxury watch purchases in India. This part focused more on the emotional, cultural, and aspirational side of watch ownership.

Data Collection (Qualitative)

We used secondary sources such as:

- Interviews from luxury watch investors published in GQ India, Business Standard, and

GMT India

- Watch market reports from Chrono24, IMARC, and WatchCharts
- Observational research from Telegram groups like Watch Collectors India
- Brand portals: Ethos, Tata CLiQ Luxury, and Kapoor Watch Co.

Data Interpretation

Key themes were extracted manually focusing on the symbolic, generational, and social relevance of watch models like the Rolex Daytona or Omega Moonwatch.

Sentiment and behavior were analyzed in terms of:

- Emotional value (gifting, family heritage)
- Investment interest (resale, rarity, waitlist advantage)
- Cultural positioning (aspirational branding, celeb influence)

Implications of Data

These findings reveal that luxury watches are not merely hedonic purchases but also represent hybrid assets — blending utility, emotion, and financial potential. For instance, Rolex watches demonstrated consistent resale premiums even during volatile financial periods.

Understanding this dual nature helps define a new category of 'passion investments,' where traditional financial metrics are complemented by factors such as scarcity, legacy, and emotional return on investment (eROI). This concept is critical in the Indian context where emotional significance often influences purchase behavior.

The results from both methods helped us understand not just how luxury watches perform numerically, but why people in India buy and value them. The quantitative side proved their usefulness in portfolios, while the qualitative side justified their long-term emotional and social significance.

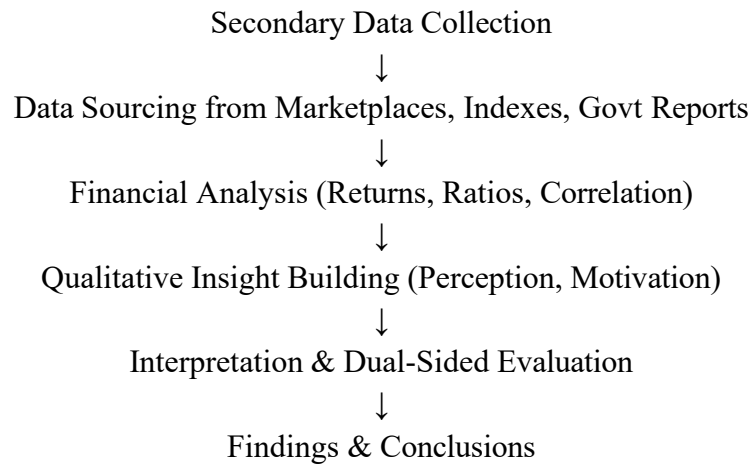
This dual analysis can help:

- Investors diversify into tangible assets
- Retailers better understand the Indian buyer mindset
- Policy-makers review GST/import policies for luxury retail
- Academics expand under-researched domains like watch investing

Research Flow Chart

The extended research flow now includes the feedback loop between investment performance and emotional perception. As consumer satisfaction influences future demand, this behavioral component is vital for pricing models.

Additionally, an expert validation step was added, where watch collectors and financial analysts were consulted to cross-verify assumptions and market behavior trends observed in the study.



CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction to the case

This case study employs a rigorous quantitative framework to evaluate luxury watches as an investable asset class, comparing their risk-return profile against traditional assets (equities, bonds, gold) and analyzing their diversification potential in multi-asset portfolios. Focusing on Indian markets from 2018–2025, the analysis tracks four asset classes through market cycles, including the COVID-19 shock, to assess how luxury timepieces influence portfolio efficiency.

Asset Performance Analysis Tools: Return metrics (CAGR, absolute returns) , Risk indicators (volatility, max drawdown) and Risk-adjusted performance (Sharpe ratio)

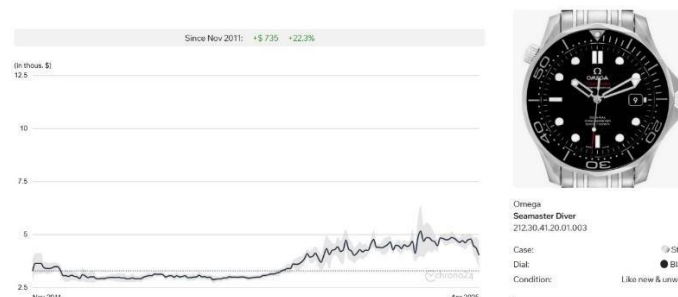
Portfolio Comparison Method: Portfolio A (50% equities, 30% bonds, 20% gold) vs. Portfolio B (40% equities, 24% bonds, 16% gold, 20% watches)

4.2 Data Collection

Systematic tracking of BSE Sensex (equities), 10-year Indian Treasuries (bonds), gold prices, and a proprietary Watch Index comprising eight luxury models (Rolex, Omega, Tag Heuer, Cartier). The watch dataset incorporates USD/INR exchange rates and import duties, with monthly rebalancing to ensure comparability.

Luxury Watch Portfolio (4brands – 2 Models Each)

Omega Seamaster 300



Omega

3. Speedmaster Professional "Moonwatch"

- **Type:** Chronograph
- **Key Features:** Manual-winding, Hesalite/Sapphire crystal, space history
- **Market Behavior:** Collector favorite, Omega often reissues special editions
- **Investment Reputation:** Moderate appreciation; strong intrinsic and collector value
- **Expected Characteristics:**
 - Moderate Return
 - Moderate Volatility

Omega

3. Speedmaster Professional "Moonwatch"

- **Type:** Chronograph
- **Key Features:** Manual-winding, Hesalite/Sapphire crystal, space history
- **Market Behavior:** Collector favorite, Omega often reissues special editions
- **Investment Reputation:** Moderate appreciation; strong intrinsic and collector value
- **Expected Characteristics:**
 - Moderate Return
 - Moderate Volatility



Fig 4.1 : Chrono 24

Tag Heuer Carrera 160th Anniversary



Carrera 160th Anniversary

- **Type:** Chronograph
- **Key Features:** Heritage-inspired, limited edition, automatic movement
- **Market Behavior:** Good brand following, but less secondary demand than Omega/Rolux
- **Investment Reputation:** Not considered a strong investment piece
- **Expected Characteristics:**
 - Low Return
 - Moderate Volatility



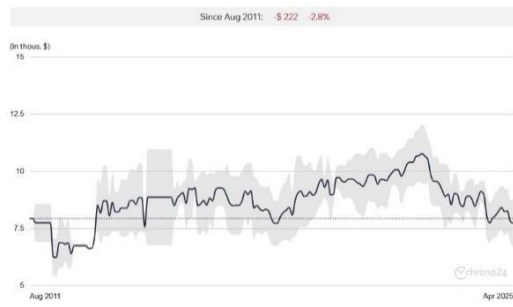
Tag Heuer Monaco Gulf

Monaco Gulf Edition

- **Type:** Chronograph
- **Key Features:** Square case, Gulf livery, motorsport heritage
- **Market Behavior:** Niche appeal; pop culture status (Steve McQueen)
- **Investment Reputation:** Iconic but not typically a high-appreciation asset
- **Expected Characteristics:**
 - Low Return
 - Moderate Volatility

Fig 4.2 : Chono 24

Cartier Santos-Dumont



▮ Santos-Dumont

- **Type:** Dress / Casual
- **Key Features:** Aviation-inspired, square case, visible screws
- **Market Behavior:** Resurgent demand due to recent relauches
- **Investment Reputation:** Modest resale, appreciated by Cartier enthusiasts
- **Expected Characteristics:**
 - Low Return
 - Low Volatility



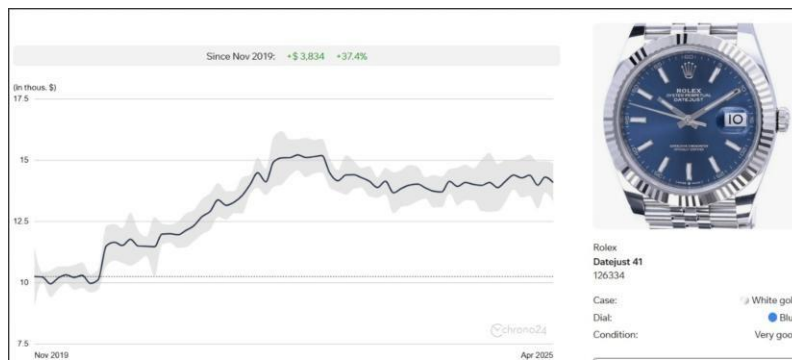
Cartier Tank Louis

Fig 4.3: Chrono 24

Tank Louis

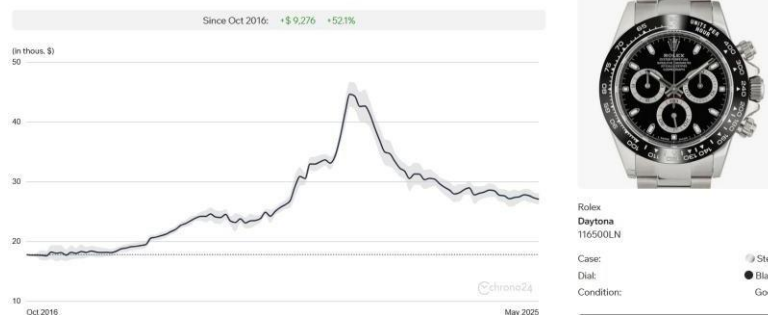
- **Type:** Dress
- **Key Features:** Rectangular case, minimalist design, quartz or manual movement
- **Market Behavior:** Consistent classic appeal, strong female market
- **Investment Reputation:** More of a style icon than investment vehicle
- **Expected Characteristics:**
 - Low Return
 - Low Volatility

Rolex Daytona 116500



Rolex Daytona 116500LN

- **Category:** Sports chronograph, steel model
- **Market Status:** *Flagship collector model*; consistently oversubscribed
- **Theoretical Annual Return:** 10–14%
- **Theoretical Volatility:** 18–24%
- **Notes:**
 - High demand on grey market; often sells at 1.5–2x retail.
 - Price influenced by celebrity usage, limited supply, and discontinued variations.
 - One of the most liquid luxury watches in resale.



Rolex date just 41

Fig 4.4: Chrono 24

❑ Rolex Datejust 41

- **Type:** Dress / Everyday watch
- **Launch Year:** Modern size introduced ~2016
- **Key Features:** Fluted bezel, Jubilee bracelet, date window
- **Market Behavior:** Iconic, steady demand, lower hype than sports models
- **Investment Reputation:** Reliable, stable performer in resale
- **Expected Characteristics:**
 - **Moderate Return**
 - **Moderate Volatility**

Individual Asset Performance Equity

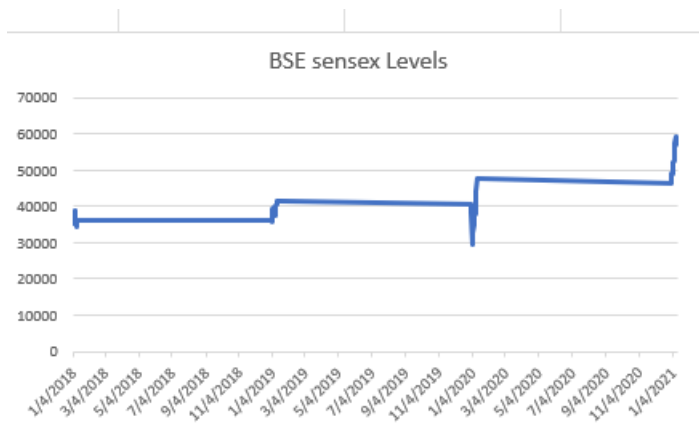
The BSE Sensex represents the equity component in both portfolios.

From 2018–2025 the Sensex roughly doubled ($\approx 114\%$ total), implying an annualized return (CAGR) on the order of 11–12%. Equity had the highest returns but also the highest volatility, with occasional sharp declines (e.g. the early-2020 COVID selloff). Its max drawdown (largest peak-to-trough drop) was on the order of $\sim 20\%$ or more (market peaks around Jan 2020 fell over the following weeks). This is consistent with equity's risk profile: volatile returns and significant drawdowns. Annualized volatility (standard deviation of returns) is high (17.5%), reflecting large swings in price. Its Sharpe ratio (excess return per unit risk) is typically moderate (well above 1 is considered very good); in this period, rough estimates suggest a Sharpe in the ~ 0.4 – 0.6 range, meaning equities delivered higher return but also proportionally higher risk.

DATE	BSE sensex Close	MonthLY Change	Date2	BSE sense	MonthLY C
1/4/2018	35160.36	(BSE)	1/1/2022	58014.17	-0.41%
1/5/2018	35322.38	0.46%	1/2/2022	56247.28	-3.05%
1/6/2018	35423.48	0.29%	1/3/2022	58568.51	4.13%
1/7/2018	37606.58	6.16%	1/4/2022	57060.87	-2.57%
1/8/2018	38645.07	2.76%	1/5/2022	55566.41	-2.62%
1/9/2018	36227.14	-6.26%	1/6/2022	53018.94	-4.58%
1/10/2018	34442.05	-4.93%	1/7/2022	57570.25	8.58%
1/11/2018	36194.3	5.09%	1/8/2022	59537.07	3.42%
1/12/2018	36068.33	-0.35%	1/9/2022	57426.92	-3.54%
1/1/2019	36256.69	0.52%	1/10/2022	60746.59	5.78%
1/2/2019	35867.44	-1.07%	1/11/2022	63099.65	3.87%
1/3/2019	38672.91	7.82%	1/12/2022	60840.74	-3.58%
1/4/2019	39031.55	0.93%	1/1/2023	59549.9	-2.12%
1/5/2019	39714.2	1.75%	1/2/2023	58962.12	-0.99%
1/6/2019	39394.64	-0.80%	1/3/2023	58991.52	0.05%
1/7/2019	37481.12	-4.86%	1/4/2023	61112.44	3.60%
1/8/2019	37332.79	-0.40%	1/5/2023	62622.24	2.47%
1/9/2019	38667.33	3.57%	1/6/2023	64718.56	3.35%
1/10/2019	40129.05	3.78%	1/7/2023	66527.67	2.80%
1/11/2019	40793.81	1.66%	1/8/2023	64831.41	-2.55%
1/12/2019	41253.74	1.13%	1/9/2023	65828.41	1.54%
1/1/2020	40723.49	-1.29%	1/10/2023	63874.93	-2.97%
1/2/2020	38297.29	-5.96%	1/11/2023	66988.44	4.87%
1/3/2020	29468.49	-23.05%	1/12/2023	72240.26	7.84%
1/4/2020	33717.62	14.42%	1/1/2024	71752.11	-0.68%
1/5/2020	32424.1	-3.84%	1/2/2024	72500.3	1.04%
1/6/2020	34915.8	7.68%	1/3/2024	73651.35	1.53%
1/7/2020	37606.89	7.71%	1/4/2024	74482.78	1.13%
1/8/2020	38628.29	2.72%	1/5/2024	73961.31	-0.70%
1/9/2020	38067.93	-1.45%	1/6/2024	79032.73	6.86%
1/10/2020	39614.07	4.06%	1/7/2024	81741.34	3.43%
1/11/2020	44149.72	11.45%	1/8/2024	82365.77	0.76%
1/12/2020	47751.33	8.16%	1/9/2024	84299.78	2.35%
1/1/2021	46285.77	-3.07%	1/10/2024	79389.06	-5.83%
1/2/2021	49099.99	6.08%	1/11/2024	79802.79	0.52%
1/3/2021	49509.15	0.83%	1/12/2024	78139.01	-2.08%
1/4/2021	48782.36	-1.47%	1/1/2025	77500.57	-0.82%
1/5/2021	51937.44	6.47%	1/2/2025	73198.1	-5.55%
1/6/2021	52482.71	1.05%	1/3/2025	77414.92	5.76%
1/7/2021	52586.84	0.20%	1/4/2025	75157.26	-2.92%
1/8/2021	57552.39	9.44%			
1/9/2021	59126.36	2.73%			
1/10/2021	59306.93	0.31%			
1/11/2021	57064.87	-3.78%			
1/12/2021	58253.82	2.08%			

4.5: Own Analysis

BSE		
Column1		
Mean		0.010347548
Standard Error		0.005432089
Median		0.008803437
Mode		#N/A
Standard Deviation		0.049785921
Sample Variance		0.002478638
Kurtosis		5.777693905
Skewness		-0.96034606
Range		0.374725605
Minimum		-0.230533283
Maximum		0.144192322
Sum		0.86919403
Count		84



4.6: Own Analysis

Indian 10-Year Treasury Bond Performance

The 10-year Indian Treasury Bonds represent the fixed income portion of both portfolios. Portfolio A allocates ₹600,000 (30% of total) to these bonds, while Portfolio B allocates ₹480,000 (24%). Sheet 7 provides detailed tracking of these bonds with:

- A coupon rate of 6.79%
- Total value metrics
- Monthly change percentages
- Bond value calculations
- Reinvested cash amounts
- Close yield values tracked monthly
- Bond value calculations

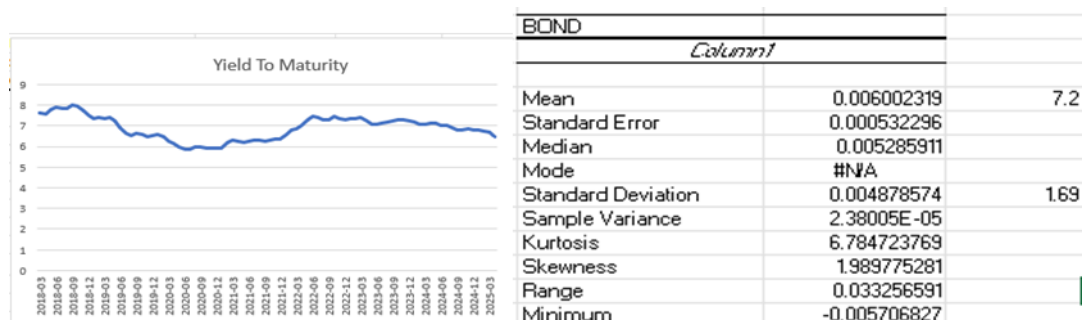
. Bonds (Indian 10-yr Treasury): A constant-investment bond portfolio rose modestly, from ~₹600k to about ₹800k (~33% total) by late 2021, about a 4–5% CAGR. The drawdown was negligible (single-digit % at most) because bond values rarely plunged in this timeframe. Volatility was very low – bond prices moved slowly, so annualized volatility is only a few percent. Even though total returns were low, bonds' risk was minimal, so on a risk-adjusted basis bonds often had a high Sharpe (because standard deviation is tiny). In practice, investors treat bonds as a buffer; their low volatility complements equities by offsetting large stock movements.

10 yr Treasury Bond (Indian)		coupon rate = 6.79%		Amount Invested = 600000		
Months	Close YIELD	Bond Value	Reinvested Cash	Total Value	monthly change	
2022-01	6.5715	626470.99	181933.31	808404.29	0.51%	
2022-02	6.812	625859.1	186401.24	812260.34	0.48%	
2022-03	6.836	625283.61	190896.36	816179.97	0.48%	
2022-04	7.0225	624901.29	195417.47	820318.77	0.51%	
2022-05	7.269	624442.88	199965.57	824408.45	0.50%	
2022-06	7.4345	623797.48	204542.82	828340.3	0.48%	
2022-07	7.372	623175.86	209149.59	832325.44	0.48%	
2022-08	7.2645	622609.91	213785.92	836395.83	0.49%	
2022-09	7.2695	621973.47	218453.19	840426.65	0.48%	
2022-10	7.453	621409.65	223151.29	844560.94	0.49%	
2022-11	7.3465	621061.13	227878.35	848939.47	0.52%	
2022-12	7.2685	620641.62	232635.73	853277.35	0.51%	
2023-01	7.3475	620269.16	237423.41	857692.56	0.52%	
2023-02	7.3695	620035	242240.04	862275.04	0.53%	
2023-03	7.386	619681.65	247087.8	866769.44	0.52%	
2023-04	7.243	619384.85	251966.43	871351.28	0.53%	
2023-05	7.0725	619080.33	256876.67	875956.99	0.53%	
2023-06	7.046	618782.44	261819.05	880601.49	0.53%	
2023-07	7.147	618503.85	266793.93	885297.78	0.53%	
2023-08	7.159	618277.19	271801.05	890078.25	0.54%	
2023-09	7.2095	618067.52	276840.75	894908.27	0.54%	
2023-10	7.301	617835.03	281914.24	899749.27	0.54%	
2023-11	7.309	617690.05	287020.34	904710.39	0.55%	
2023-12	7.236	617532.49	292160.06	909692.55	0.55%	
2024-01	7.1695	617349.01	297334.89	914683.9	0.55%	
2024-02	7.071	617269.93	302542.91	919812.84	0.56%	
2024-03	7.064	617118.38	307787.03	924905.41	0.55%	
2024-04	7.143	617004.73	313067.19	930071.91	0.56%	
2024-05	7.1075	616940.31	318382.81	935323.12	0.56%	
2024-06	7.0335	616848.77	323736.01	940584.79	0.56%	
2024-07	6.997	616787.83	329126.99	945914.82	0.57%	
2024-08	6.8895	616795.37	334554.11	951349.48	0.57%	
2024-09	6.8135	616794.12	340019.05	956813.17	0.57%	
2024-10	6.789	616823.73	345521.7	962345.43	0.58%	
2024-11	6.832	616873.21	351062.45	967935.65	0.58%	
2024-12	6.771	616953.98	356640.89	973594.87	0.58%	
2025-01	6.7715	617065.38	362256.28	979321.67	0.59%	
2025-02	6.7505	617190.67	367908.97	985099.64	0.59%	
2025-03	6.6865	617334.7	373598.73	990933.43	0.59%	
2025-04	6.442	617489.09	379326.17	996815.26	0.59%	

Fig 4.7: Own Analysis

10 yr Treasury Bond (Indian)		coupon rate = 6.79%	Amount Invested = 600000			
Months	Close YIELD	Bond Value	Reinvested Cash	Total Value	monthly change	
2018-03	7.5905			600000		
2018-04	7.561	600000	3498.21	603498.21	0.58%	
2018-05	7.781	593035.8	7018.35	600054.15	-0.57%	
2018-06	7.8805	589750.3	10561.17	600311.47	0.04%	
2018-07	7.8335	591534.25	14126.1	605660.35	0.89%	
2018-08	7.8455	588645.59	17714.67	606360.26	0.12%	
2018-09	7.982	582335.17	21329.24	603664.4	-0.44%	
2018-10	7.9265	586958.19	24965.13	611923.32	1.37%	
2018-11	7.719	589776.46	28622.83	618399.29	1.06%	
2018-12	7.482	599342.63	32296.87	631639.51	2.14%	
2019-01	7.36	604964.76	35988.88	640953.64	1.47%	
2019-02	7.421	607352.24	39700.91	647053.15	0.95%	
2019-03	7.355	607550.76	43434.9	650985.66	0.61%	
2019-04	7.373	607398.28	47191.37	654589.65	0.55%	
2019-05	7.2325	603920.27	50974.78	654895.04	0.05%	
2019-06	6.927	600967.41	54785.42	655752.83	0.13%	
2019-07	6.627	597687.45	58624.75	656312.2	0.09%	
2019-08	6.495	596328.9	62490.63	658819.54	0.38%	
2019-09	6.634	595817.18	66382.12	662199.31	0.51%	
2019-10	6.5655	595059.34	70300.07	665359.41	0.48%	
2019-11	6.4445	598166.19	74236.87	672403.07	1.06%	
2019-12	6.5205	601306.77	78191.83	679498.59	1.06%	
2020-01	6.553	601378.27	82171.42	683549.69	0.60%	
2020-02	6.449	607105.29	86161.8	693267.09	1.42%	
2020-03	6.2415	619328.48	90144.76	709473.24	2.34%	
2020-04	6.12	634910.72	94108.34	729019.06	2.75%	
2020-05	5.9505	643737.8	98067.31	741805.11	1.75%	
2020-06	5.852	647969.44	102032.41	750001.85	1.10%	
2020-07	5.8385	645333.93	106023.15	751357.09	0.18%	
2020-08	5.9475	644768.87	110033.76	754802.62	0.46%	
2020-09	5.981	646466.17	114056.69	760522.87	0.76%	
2020-10	5.941	645620.21	118100.35	763720.56	0.42%	
2020-11	5.9015	645334.13	122162.87	767497	0.49%	
2020-12	5.9135	643889.79	126248.86	770138.65	0.34%	
2021-01	5.9265	641133.75	130364.29	771498.04	0.18%	
2021-02	6.199	638322.85	134510.54	772833.39	0.17%	
2021-03	6.311	635213.04	138690.24	773903.29	0.14%	
2021-04	6.2685	633468.89	142898.22	776367.12	0.32%	
2021-05	6.194	632218.8	147132.8	779351.6	0.38%	
2021-06	6.23	631415.25	151392.21	782807.46	0.44%	
2021-07	6.2885	630567.45	155677.12	786244.57	0.44%	
2021-08	6.2855	629887.45	159986.99	789874.44	0.46%	
2021-09	6.2325	628754.33	164324.99	793079.32	0.41%	
2021-10	6.2995	628276.42	168687.57	796963.99	0.49%	
2021-11	6.3365	627632.17	173076.15	800708.32	0.47%	
2021-12	6.3815	626813.51	177492.39	804305.89	0.45%	

Fig 4.8: Own Analysis



4.9 : Own Analysis

Gold Performance

Gold serves as a traditional alternative asset within both portfolios, with Portfolio A allocating ₹400,000 (20%) and Portfolio B allocating ₹320,000 (16%) : Gold rates (price data) and Monthly percentage changes As a traditional hedge against inflation and market uncertainty, gold's performance characteristics would

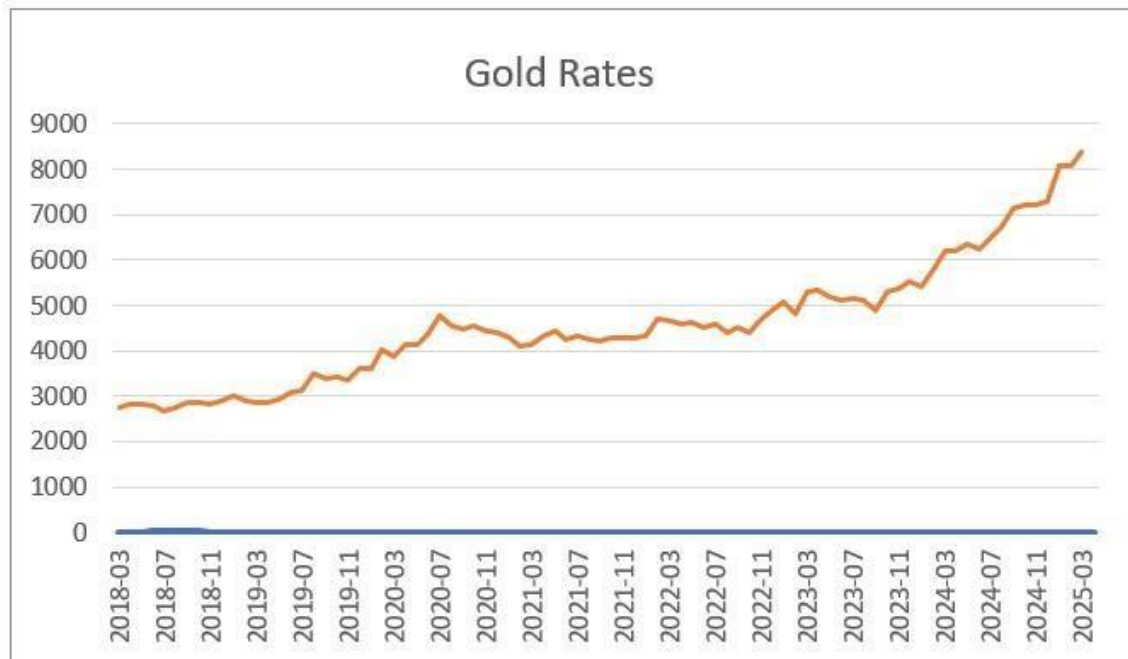
typically show low correlation with equity markets during certain economic conditions. The allocation percentages suggest a conservative approach to using gold as a portfolio stabilizer.

Date	Gold Rate	monthly change	Date2	Gold Rate2	monthly change
Apr-18	2767.14		Jan-22	4295.14	-0.24%
May-18	2829.3	2.25%	Feb-22	4338.08	1.00%
Jun-18	2811.34	-0.63%	Mar-22	4698.16	8.30%
Jul-18	2784.49	-0.96%	Apr-22	4676.63	-0.46%
Aug-18	2679.93	-3.76%	May-22	4577.43	-2.12%
Sep-18	2744.26	2.40%	Jun-22	4609.77	0.71%
Oct-18	2861.77	4.28%	Jul-22	4506.26	-2.25%
Nov-18	2849.08	-0.44%	Aug-22	4571.45	1.45%
Dec-18	2812.3	-1.29%	Sep-22	4398.71	-3.78%
Jan-19	2892.58	2.85%	Oct-22	4517.05	2.69%
Feb-19	3010.38	4.07%	Nov-22	4387.23	-2.87%
Mar-19	2895.31	-3.82%	Dec-22	4700.68	7.14%
Apr-19	2875.97	-0.67%	Jan-23	4895.5	4.14%
May-19	2876.6	0.02%	Feb-23	5065.86	3.48%
Jun-19	2945.3	2.39%	Mar-23	4820.32	-4.85%
Jul-19	3079.2	4.55%	Apr-23	5291.97	9.78%
Aug-19	3139.81	1.97%	May-23	5344.26	0.99%
Sep-19	3495.94	11.34%	Jun-23	5200.86	-2.68%
Oct-19	3392.52	-2.96%	Jul-23	5104.76	-1.85%
Nov-19	3435.65	1.27%	Aug-23	5152.43	0.93%
Dec-19	3346.07	-2.61%	Sep-23	5130.66	-0.42%
Jan-20	3617.83	8.12%	Oct-23	4893.89	-4.61%
Feb-20	3610.62	-0.20%	Nov-23	5312.35	8.55%
Mar-20	4008.75	11.03%	Dec-23	5392.49	1.51%
Apr-20	3890.92	-2.94%	Jan-24	5542.29	2.78%
May-20	4136.43	6.31%	Feb-24	5402.08	-2.53%
Jun-20	4137.58	0.03%	Mar-24	5772.84	6.86%
Jul-20	4365.18	5.50%	Apr-24	6211.65	7.60%
Aug-20	4769.63	9.27%	May-24	6188.88	-0.37%
Sep-20	4561.18	-4.37%	Jun-24	6345.16	2.53%
Oct-20	4483.31	-1.71%	Jul-24	6244.5	-1.59%
Nov-20	4552.06	1.53%	Aug-24	6476.73	3.72%
Dec-20	4430.17	-2.68%	Sep-24	6740.25	4.07%
Jan-21	4393.56	-0.83%	Oct-24	7160.92	6.24%
Feb-21	4301.33	-2.10%	Nov-24	7213.69	0.74%
Mar-21	4101.97	-4.63%	Dec-24	7209.41	-0.06%
Apr-21	4119.71	0.43%	Jan-25	7301.04	1.27%
May-21	4319.52	4.85%	Feb-25	8079.26	10.66%
Jun-21	4429.88	2.55%	Mar-25	8074.02	-0.06%
Jul-21	4254.29	-3.96%	Apr-25	8370.65	3.67%
Aug-21	4319.59	1.53%			
Sep-21	4246.61	-1.69%			
Oct-21	4226.36	-0.48%			
Nov-21	4300.88	1.76%			
Dec-21	4305.53	0.11%			

4.10 : Own Analysis

GOLD		
Mean	0.014021261	16.82
Standard Error	0.004333871	
Median	0.008353754	
Mode	#N/A	
Standard Deviation	0.039720588	13.7596
Sample Variance	0.001577725	
Kurtosis	-0.080485691	
Skewness	0.690795757	
Range	0.16189362	
Minimum	-0.048469559	
Maximum	0.113424061	
Sum	1.177785951	
Count	84	

4.11 : Own Analysis



4.12: Own Analysis

- The gold price climbed strongly (from about ₹2,767 to ₹8,074), roughly a 192% total gain (\approx CAGR \sim 16–17% over 7 years). Gold’s drawdown has been moderate – its peak-to- trough dips (about – 14% from peak) were milder than equities’.

Volatility is medium-high (13.7596%)(gold can swing with inflation and FX

factors), but lower than equity volatility. Gold’s Sharpe ratio tends to be quite attractive, since its solid returns came with less extreme swings compared to stocks. As a classic “safe-haven” or inflation hedge, gold often rises when equities fall; indeed academic studies show gold outperformed stocks and matched or beat bonds over similar periods.

4.3 Data analysis

Luxury Watch Market Analysis

The most significant difference between the two portfolios is the inclusion of luxury watches in Portfolio B with an allocation of ₹400,000 (20%):

Luxury Watches: The watch index grew from \sim 646 to \sim 1,211 (\approx 87% total, \sim 9–10% CAGR). Watches had lower returns than stocks or gold, but also lower volatility. We estimate a max drawdown on the order of –18% (much smaller than the stock market’s crash), indicating relatively smooth price behavior. Watches’ Sharpe ratio is comparable or even higher than equity’s, because their moderate returns came with low risk. Studies confirm that luxury watches generally underperform equities but are far less volatile and weakly correlated with stocks. In other words, watches tend not to move in sync with the market, so they add diversification (often acting like a stabilizer when stocks fall).

The data includes price tracking for individual pieces and an aggregate Watch Index with monthly change

calculations. The index is constructed as an equally-weighted index with a base value of 1000. This comprehensive approach to tracking luxury watch values enables treating watches as an investable asset class.

When evaluating luxury watch performance, exchange rate fluctuations between USD and INR are considered, as many luxury watches are priced in USD internationally but the portfolio values are expressed in INR. Also fixed 44% premium is added to these watch prices to accommodate import duty component (retrospectively).

DATE	price Rolex Daytona 116500	price Rolex datejust 41	price Tag Heuer Carrera 160th Anniv.	price Tag Heuer Monaco Gulf	price Cartier Tank Louis	price cartier Santos-Dumont
1/4/2018	1859820.782	189136.8373	838312.9899	396133.0119	466296.1919	790006.71
1/5/2018	1943444.44	183494.5408	880684.8829	413112.7852	481704.4869	809332.0693
1/6/2018	1958518.493	177604.0438	876461.5076	415113.3313	481704.4869	775656.2087
1/7/2018	2008509.491	180789.4817	887297.226	404104.4295	617070.8174	764895.8843
1/8/2018	2083194.137	190991.0352	893160.593	406585.4692	627674.3352	778039.5736
1/9/2018	2187472.826	200318.2508	931822.796	445572.1187	648611.7898	834146.9547
1/10/2018	2220157.967	209152.7513	955163.0256	419871.7387	660832.7933	869140.523
1/11/2018	2208017.446	213469.6892	954377.0078	450935.4147	651577.1803	867777.4511
1/12/2018	2241132.445	208038.1913	956579.1945	450710.5433	639625.7578	864221.4324
1/1/2019	2288553.633	216231.4986	962661.6989	454039.4952	639715.6181	829237.3006
1/2/2019	2306120.706	216154.5319	977775.2001	449241.7526	715407.7075	897666.0651
1/3/2019	2348529.207	203006.6486	958273.774	439199.2769	709157.4336	911126.7959
1/4/2019	2370714.005	201594.0184	957030.2807	411962.9036	681892.7846	916346.8072
1/5/2019	2474736.838	201490.1509	970608.149	420371.8425	699928.2109	897037.3557
1/6/2019	2502540.603	208072.0055	968461.9918	427747.808	714752.2529	894061.1763
1/7/2019	2497607.777	197276.5235	951231.1182	416410.069	604486.6495	902897.8066
1/8/2019	2612017.124	212849.2368	993335.3149	445175.6366	622501.5344	919508.7029
1/9/2019	2652443.373	198048.3701	1044340.019	450662.2793	582039.3249	932171.0305
1/10/2019	2652334.707	202014.141	1042886.366	432887.4449	639206.5844	967712.901
1/11/2019	2705624.117	214754.0414	1094435.44	440427.7799	643678.0171	997801.9923
1/12/2019	2530298.587	205148.6937	1091838.071	440304.9083	631817.7866	955219.9561
1/1/2020	2514020.798	195676.9483	1105563.069	450968.7375	635324.7161	989606.3586
1/2/2020	2658946.711	203056.2232	1116516.301	450402.8401	644316.4708	924942.773
1/3/2020	2738406.846	216206.9079	1181403.268	456653.3509	657057.1212	964343.7127
1/4/2020	2718706.505	219704.5053	1209436.455	464389.6251	655449.6741	1068795.595
1/5/2020	2660301.902	205541.0145	1196303.251	460669.7285	630767.8067	106116.77
1/6/2020	2742931.803	199207.295	1207531.323	451660.652	617531.0331	1044690.219
1/7/2020	2749115.141	192856.9633	1220035.261	442956.8213	620483.4936	1031231.979
1/8/2020	2758298.033	198690.3988	1192019.668	449906.7337	650501.6602	1043768.895
1/9/2020	2746768.545	191657.1303	1171505.715	429933.5626	641761.2517	1024781.4
1/10/2020	2791729.766	199342.5029	1244292.768	446681.5673	627667.4056	1022037.333
1/11/2020	2837412.418	214812.3153	1252624.314	444270.9249	627588	1021456.97
1/12/2020	2854532.656	218572.35	1230284.587	446671.9765	631651.2996	1003862.953
1/1/2021	2844258.385	219128.8272	1221083.11	452994.0382	618914.6351	984821.7387
1/2/2021	2937064.886	222525.2931	1250675.669	448868.7145	597218.1189	1005002.972
1/3/2021	3089393.312	231315.1174	1242782.201	454760.7515	600612.4668	1032213.903
1/4/2021	3411894.758	237662.4347	1259196.093	469712.7175	611761.2795	1057646.636
1/5/2021	3583560.947	225064.1151	1252900.873	470512.3003	663666.661	1033112.635
1/6/2021	3642789.39	265536.0037	1300525.658	467872.0355	693904.7085	997982.8266
1/7/2021	3765617.995	223960.2531	1312221.264	485084.2163	695286.2367	1037649.906
1/8/2021	3781712.142	227379.2617	1317973.326	485262.1016	690943.9723	1030923.718
1/9/2021	3745748.963	241780.2387	1353631.351	480059.9148	718549.4051	1019267.267
1/10/2021	3912790.824	240288.2335	1397659.881	502900.3355	821530.3016	1057317.291
1/11/2021	4039108.135	236320.3984	1471847.85	506313.7085	828213.3985	1069846.966
1/12/2021	4157984.585	222565.9717	1548327.981	517262.0919	829823.1581	1095414.874

DATE	price Rolex Daytona 116500	price Rolex datejust 41	price Tag Heuer Carrera 160th Anniv.	price Tag Heuer Monaco Gulf	price Cartier Tank Louis	price cartier Santos-Dumont
1/1/2022	4414609.968	242249.5754	1572058.107	512094.1126	842762.9406	1081087.571
1/2/2022	5060648.738	254780.7416	1616438.164	521974.8238	861908.8611	1058452.362
1/3/2022	5611979.416	256632.3019	1732517.68	529616.1756	878338.5561	1096678.699
1/4/2022	5588203.535	258754.2616	1766593.856	506524.2612	889541.4118	1133750.583
1/5/2022	5579729.02	265262.5407	1857091.261	523554.4938	886391.4989	1160285.982
1/6/2022	5215657.861	238694.0974	1807730.431	533799.8224	894130.8088	1170445.333
1/7/2022	5021561.931	239428.1323	1869856.899	547859.4784	969515.4358	1219794.547
1/8/2022	4779644.201	247308.9035	1876807.04	606200.4521	952571.2211	1227670.108
1/9/2022	4570077.771	241496.7494	1872970.465	617187.3681	964136.2867	1237768.745
1/10/2022	4666870.606	239634.6058	1872280.287	639025.6154	913808.9739	1266987.02
1/11/2022	4462167.449	243484.3203	1828941.837	616068.8434	883628.3572	1238693.034
1/12/2022	4469894.469	243180.1885	1806365.213	626114.4319	898829.6406	1175913.119
1/1/2023	4232639.758	239163.4341	1722571.929	606971.9055	828585.194	1138596.507
1/2/2023	4162481.147	260933.5286	1733286.152	637717.2131	832225.8289	1139012.747
1/3/2023	4172750.711	254218.3829	1776966.267	647346.5454	826211.5949	1120583.843
1/4/2023	4317310.418	227904.333	1740225.825	631647.4873	792808.1597	1083689.14
1/5/2023	4189680.118	228998.4472	1761702.256	643050.2171	803197.5981	1052398.38
1/6/2023	4124474.167	228470.296	1719178.428	628764.248	805384.2573	1065655.504
1/7/2023	4055242.507	231330.2225	1689868.622	677428.6084	796304.3244	1010420.25
1/8/2023	3861330.709	227263.7297	1711927.022	642243.5078	781639.8237	1076319.94
1/9/2023	4029521.329	238835.1975	1729264.368	652370.257	754839.4908	1077710.765
1/10/2023	3956839.685	237688.3197	1743547.405	665091.1697	773508.4731	1028574.397
1/11/2023	3889328.71	224465.1898	1707572.879	656611.8501	815670.4307	1014664.53
1/12/2023	3853375.293	210627.0794	1717714.241	660764.1236	837631.2954	1063080.919
1/1/2024	3842257.954	222701.065	1692582.544	643600.6327	758866.8195	1070081.34
1/2/2024	3902083.967	244742.1323	1729112.007	638723.9082	749999.0776	1049847.157
1/3/2024	3781807.019	209683.4911	1730705.75	645117.1304	776566.8084	1014786.402
1/4/2024	3770253.056	230718.1581	1768702.612	635465.288	780178.6555	1059605.682
1/5/2024	3786551.856	229298.7454	1768485.375	639493.281	754746.6738	1097680.577
1/6/2024	3858394.334	222865.6146	1723923.025	658740.3793	752647.6483	1084347.993
1/7/2024	3813759.7	242515.6334	1751897.84	662976.5987	737322.5549	973489.832
1/8/2024	3755772.538	245296.1357	1760013.493	697475.142	746470.6865	935088.6247
1/9/2024	3669205.563	238128.544	1762784.034	691274.3696	767041.7666	963106.8381
1/10/2024	3688980.209	219146.372	1772069.572	717676.4611	745823.3532	979689.7034
1/11/2024	3737704.323	222234.2184	1796439.449	722122.6599	812592.1305	1006704.383
1/12/2024	3729283.659	223563.7546	1814680.638	728183.0638	803802.1969	1031093.855
1/1/2025	3853854.95	240976.3472	1876647.471	724201.0575	837524.4816	1025244.823
1/2/2025	3843059.85	232771.0967	1868880.326	740674.2066	856004.2865	1037628.51
1/3/2025	3813568.477	245076.5396	1831908.154	754932.1283	854935.8209	975345.0948
1/4/2025	3688521.856	228113.0181	1766018.178	751076.4832	842152.3862	949185.6993
CAGR	9.82%	2.68%	10.69%	9.17%	8.47%	2.63%

Fig 4.13: Own analysis

DATE	price Seamaster 300	price Omega Speedmaster Moonwatch	INDEX(BASE = 1000), FIXED WEIGHTS(EQUALLY WEIGHTED)	MONTHLY CHANGE
1/4/2018	281338.3558	348257.0775	646.1627446	
1/5/2018	287634.0834	359209.1799	669.8270586	3.66%
1/6/2018	289968.0539	348984.1661	665.5012865	-0.65%
1/7/2018	294865.7321	351228.85	688.595239	3.47%
1/8/2018	301076.9405	361841.6137	705.3204621	2.43%
1/9/2018	311711.2805	370009.331	741.2081685	5.09%
1/10/2018	324692.7793	366981.1524	753.2409914	1.62%
1/11/2018	321451.8525	369443.9251	754.6312458	0.18%
1/12/2018	318354.407	360685.048	754.9183774	0.04%
1/1/2019	322597.8022	360735.7202	759.2215958	0.57%
1/2/2019	323005.6376	368899.0633	781.783833	2.97%
1/3/2019	320416.3562	370309.7603	782.5024065	0.09%
1/4/2019	322618.805	370937.5522	779.1371446	-0.43%
1/5/2019	332269.9593	377236.2451	796.709844	2.26%
1/6/2019	334234.8563	371435.2641	802.6632448	0.75%
1/7/2019	336981.2003	375737.9816	785.3286407	-2.16%
1/8/2019	348956.1186	401789.3812	819.5166312	4.35%
1/9/2019	371793.4594	398900.9649	828.7998526	1.13%
1/10/2019	367954.3282	402631.8708	838.4535429	1.16%
1/11/2019	373735.4368	403793.9576	859.2813477	2.48%
1/12/2019	380990.4311	403642.0228	829.9065571	-3.42%
1/1/2020	396029.5704	406432.9446	836.7028927	0.82%
1/2/2020	422399.1255	418180.9928	854.8451798	2.17%
1/3/2020	422060.2456	432292.0092	883.5529326	3.36%
1/4/2020	436786.046	440658.0412	901.7408058	2.06%
1/5/2020	449512.4961	442818.1567	888.3863906	-1.48%
1/6/2020	426092.6129	444834.2338	891.8098965	0.39%
1/7/2020	398980.5202	434112.4256	886.2215755	-0.63%
1/8/2020	432479.9044	439107.0085	895.5965378	1.06%
1/9/2020	460049.3907	441016.1874	888.4341478	-0.80%
1/10/2020	430883.7041	451022.9648	901.7072514	1.49%
1/11/2020	457208.4848	465874.2089	915.1559544	1.49%
1/12/2020	456586.7709	459364.2096	915.2283502	0.01%
1/1/2021	466412.5339	458265.5901	908.2348572	-0.76%
1/2/2021	441351.7743	458414.0353	920.1401828	1.31%
1/3/2021	446772.0335	526301.5095	953.0189117	3.57%
1/4/2021	508753.7745	548282.8448	1013.113817	6.31%
1/5/2021	455404.1072	534302.4491	1027.315511	1.40%
1/6/2021	446124.5166	548494.0529	1045.403649	1.76%
1/7/2021	432639.3754	554399.4256	1063.357334	1.72%
1/8/2021	441390.4215	565227.657	1067.601575	0.40%
1/9/2021	455314.5584	558882.9282	1071.654328	0.38%
1/10/2021	451383.7158	577844.7514	1119.728167	4.49%
1/11/2021	457878.3971	576831.6178	1148.295059	2.55%
1/12/2021	461929.3753	587416.0719	1177.590514	2.55%

DATE	price Seamaster 300	price Omega Speedmaster Moonwatch	INDEX(BASE = 1000), FIXED WEIGHTS(EQUALLY WEIGHTED)	MONTHLY CHANGE
1/1/2022	490482.1293	588285.5113	1217.953739	3.43%
1/2/2022	516198.3188	595594.5364	1310.749568	7.62%
1/3/2022	483557.1681	591777.1125	1397.637139	6.63%
1/4/2022	482808.2411	608503.1478	1404.334912	0.48%
1/5/2022	487814.3904	622283.3611	1422.801568	1.31%
1/6/2022	499645.8438	635622.1704	1374.465796	-3.40%
1/7/2022	517524.1033	661128.9048	1380.833679	0.46%
1/8/2022	533639.1063	658141.8472	1360.24786	-1.49%
1/9/2022	491478.5197	647080.7495	1330.274582	-2.20%
1/10/2022	533780.6871	675051.7639	1350.929945	1.55%
1/11/2022	525899.3753	665568.403	1308.056452	-3.17%
1/12/2022	518079.5321	672608.7489	1304.759418	-0.25%
1/1/2023	537441.3596	660404.9126	1245.796875	-4.52%
1/2/2023	528904.6835	664920.3455	1244.935206	-0.07%
1/3/2023	532981.989	667576.1249	1249.829432	0.39%
1/4/2023	553885.5602	675237.218	1252.838518	0.24%
1/5/2023	487159.2554	668987.2478	1229.39669	-1.87%
1/6/2023	576019.6331	655809.3183	1225.469607	-0.32%
1/7/2023	612392.2304	651710.2891	1215.587132	-0.81%
1/8/2023	558001.5293	628564.3441	1185.911326	-2.44%
1/9/2023	581321.3786	643250.9566	1212.764218	2.26%
1/10/2023	581954.7735	642603.456	1203.72596	-0.75%
1/11/2023	566143.5091	621679.8813	1186.967122	-1.39%
1/12/2023	559674.0247	650409.8817	1194.159607	0.61%
1/1/2024	535789.3592	631077.101	1174.619602	-1.64%
1/2/2024	579136.8855	641852.9072	1191.937255	1.47%
1/3/2024	576901.9167	633407.5328	1171.122006	-1.75%
1/4/2024	572082.6797	634235.8839	1181.405752	0.88%
1/5/2024	573178.4978	643185.0318	1186.577505	0.44%
1/6/2024	585090.696	656002.4725	1192.751519	0.52%
1/7/2024	582503.6328	658726.7487	1177.899068	-1.25%
1/8/2024	569888.2258	666607.3397	1169.576523	-0.71%
1/9/2024	560448.1158	654956.6714	1163.368238	-0.53%
1/10/2024	571715.3756	658961.2369	1169.258035	0.51%
1/11/2024	563344.3467	666841.2053	1190.99784	1.86%
1/12/2024	582295.8815	704239.7476	1202.14285	0.94%
1/1/2025	595162.1103	670211.0489	1227.977786	2.15%
1/2/2025	560818.5982	690611.3053	1228.181022	0.02%
1/3/2025	544016.0549	669885.3245	1211.208449	-1.38%
1/4/2025	495483.3473	666813.4691	1173.420555	-3.12%

Fig 4.14 : Own Analysis

Portfolio Composition and Comparison

1. Portfolio A: Traditional Asset Allocation

Portfolio A represents a conventional investment approach with a ₹2,000,000 total allocation divided among three traditional asset classes:

BSE Sensex (Equities): ₹1,000,000 (50%) Indian 10-year Treasury Bonds: ₹600,000 (30%) Gold: ₹400,000 (20%)

This allocation follows typical portfolio construction principles with a moderate-to-aggressive risk profile given the relatively high equity exposure. The portfolio is designed to balance growth (equities) with income and stability (bonds) and inflation protection (gold).

2. Portfolio B: Alternative Asset Integration

Portfolio B maintains the same ₹2,000,000 total but introduces luxury watches as an alternative asset class:

BSE Sensex (Equities): ₹800,000 (40%)

Indian 10-year Treasury Bonds: ₹480,000 (24%) Gold: ₹320,000 (16%)

Watch Index: ₹400,000 (20%)

The allocation to each traditional asset class is proportionally reduced by 20% to accommodate the watch index. This restructuring maintains similar relative weightings between the traditional assets while carving out space for the alternative investment.

PORTFOLIO A					
DATE	BSE sensex C	Indian 10yr treasury	Gold	Total	Column1
04-01-2018	1000000	600000	400000	2000000	
05-01-2018	1004608.03	603498.21	408985.4507	2017092	0.85%
06-01-2018	1007483.427	600054.15	406389.2683	2013927	-0.16%
07-01-2018	1069573.235	600311.47	402508.0047	2072393	2.90%
08-01-2018	1093109.053	605660.35	387393.4821	2092163	0.95%
09-01-2018	1030340.417	606360.26	396692.614	2033393	-2.81%
10-01-2018	979570.4595	603664.4	413679.1055	1996914	-1.79%
11-01-2018	1029406.411	611923.32	411844.7205	2053174	2.82%
12-01-2018	1025823.683	618399.29	406528.0398	2050751	-0.12%
01-01-2019	1031180.853	631639.51	418132.8014	2080953	1.47%
02-01-2019	1020110.147	640953.64	435161.2134	2096225	0.73%
03-01-2019	1099900.854	647053.15	418527.4327	2165481	3.30%
04-01-2019	1110100.977	650985.66	415731.7664	2176818	0.52%
05-01-2019	1129516.308	654589.65	415822.8351	2199929	1.06%
06-01-2019	1120427.663	654895.04	425753.6662	2201076	0.05%
07-01-2019	1066005.012	655752.83	445109.3909	2166867	-1.55%
08-01-2019	1061786.341	656312.2	453870.7836	2171969	0.24%
09-01-2019	1093742.153	658819.54	505350.6509	2263912	4.23%
10-01-2019	1141315.106	662199.31	490400.9194	2293915	1.33%
11-01-2019	1160221.625	665359.41	496635.5154	2322217	1.23%
12-01-2019	1173302.549	672403.07	483686.4055	2329392	0.31%
01-01-2020	1158221.645	679498.59	522970.287	2360691	1.34%
02-01-2020	1089217.801	683549.69	521928.0557	2294696	-2.80%
03-01-2020	838116.8452	693267.09	579479.1734	2110863	-8.01%
04-01-2020	958966.8593	709473.24	562446.4248	2230887	5.69%
05-01-2020	922177.7024	729019.06	597935.7748	2249133	0.82%
06-01-2020	993044.4398	741805.11	598102.0115	2332952	3.73%
07-01-2020	1069582.052	750001.85	631002.4068	2450586	5.04%
08-01-2020	1098631.812	751357.09	689467.1032	2539456	3.63%
09-01-2020	1082694.546	754802.62	659334.909	2496832	-1.68%
10-01-2020	1126668.498	760522.87	648078.5215	2535270	1.54%
11-01-2020	1255667.462	763720.56	658016.5803	2677405	5.61%
12-01-2020	1358101.282	767497	640396.9441	2765995	3.31%
01-01-2021	1316419.115	770138.65	635104.8375	2721663	-1.60%
02-01-2021	1396458.682	771498.04	621772.6606	2789729	2.50%
03-01-2021	1408095.651	772833.39	592954.4584	2773883	-0.57%
04-01-2021	1387424.93	773903.29	595518.8389	2756847	-0.61%
05-01-2021	1477158.937	776367.12	624402.0902	2877928	4.39%
06-01-2021	1492667.026	779351.6	640355.0236	2912374	1.20%
07-01-2021	1495628.6	782807.46	614972.8601	2893409	-0.65%
08-01-2021	1636854.401	786244.57	624412.209	3047511	5.33%
09-01-2021	1681619.87	789874.44	613862.6886	3085357	1.24%
10-01-2021	1686755.483	793079.32	610935.4785	3090770	0.18%
11-01-2021	1622988.786	796963.99	621707.6115	3041660	-1.59%
12-01-2021	1656803.855	800708.32	622379.7856	3079892	1.26%
01-01-2022	1649987.941	804305.89	620877.8739	3075172	-0.15%
02-01-2022	1599735.611	808404.29	627085.0047	3035225	-1.30%
03-01-2022	1665753.991	812260.34	679135.8587	3157150	4.02%
04-01-2022	1622875.022	816179.97	676023.6201	3115079	-1.33%
05-01-2022	1580370.906	820318.77	661683.9047	3062374	-1.69%
06-01-2022	1507918.008	824408.45	666358.7675	2998685	-2.08%
07-01-2022	1637362.359	828340.3	651396.0262	3117099	3.95%
08-01-2022	1693300.922	832325.44	660819.4743	3186446	2.22%
09-01-2022	1633285.894	836395.83	635849.2884	3105531	-2.54%
10-01-2022	1727701.025	840426.65	652955.7594	3221083	3.72%
11-01-2022	1794624.685	844560.94	634189.8133	3273375	1.62%
12-01-2022	1730378.756	848939.47	679500.1337	3258818	-0.44%

DATE	BSE sensex C	Indian 10yr treasury	Gold	Total	Column1
01-01-2023	1693665.821	853277.35	707662.0626	3254605	-0.13%
02-01-2023	1676948.7	857692.56	732288.2109	3266929	0.38%
03-01-2023	1677784.869	862275.04	696794.5243	3236854	-0.92%
04-01-2023	1738106.208	866769.44	764973.2214	3369849	4.11%
05-01-2023	1781046.61	871351.28	772531.9283	3424930	1.63%
06-01-2023	1840668.298	875956.99	751802.9446	3468428	1.27%
07-01-2023	1892121.412	880601.49	737911.3453	3510634	1.22%
08-01-2023	1843877.878	885297.78	744802.2146	3473978	-1.04%
09-01-2023	1872233.675	890078.25	741655.2831	3503967	0.86%
10-01-2023	1816674.516	894908.27	707429.3314	3419012	-2.42%
11-01-2023	1905226.226	899749.27	767919.2235	3572895	4.50%
12-01-2023	2054593.867	904710.39	779503.7476	3738808	4.64%
01-01-2024	2040710.334	909692.55	801157.8742	3751561	0.34%
02-01-2024	2061989.695	914683.9	780890.0164	3757564	0.16%
03-01-2024	2094726.846	919812.84	834484.7026	3849024	2.43%
04-01-2024	2118373.646	924905.41	897916.2601	3941195	2.39%
05-01-2024	2103542.455	930071.91	894624.775	3928239	-0.33%
06-01-2024	2247779.317	935323.12	917215.6089	4100318	4.38%
07-01-2024	2324815.218	940584.79	902664.8453	4168065	1.65%
08-01-2024	2342574.706	945914.82	936234.5237	4224724	1.36%
09-01-2024	2397580.116	951349.48	974327.2838	4323257	2.33%
10-01-2024	2257913.741	956813.17	1035136.639	4249864	-1.70%
11-01-2024	2269680.686	962345.43	1042764.732	4274791	0.59%
12-01-2024	2222360.92	967935.65	1042146.042	4232443	-0.99%
01-01-2025	2204202.972	973594.87	1055391.487	4233189	0.02%
02-01-2025	2081835.908	979321.67	1167885.976	4229044	-0.10%
03-01-2025	2201766.99	985099.64	1167128.515	4353995	2.95%
04-01-2025	2137556.612	990933.43	1210007.445	4338497	-0.36%
CAGR	0.109015548	0.071888432	0.1591775	0.1111	

Fig 4.15: Own Analysis

	Column 1	Column 2	Column 3	Column 4
Column 1 BSE	1			
Column BOND	20.062793116	1		
Column WATCH	3-0.048360049	-0.10755058	1	
Column 4 GOLD	-0.261926823	0.066637941	0.023890966	1

Table 4.16: Own Analysis

PORTFOLIO B						
DATE	BSE sensex C	Indian 10yr treasury	Gold	Watch In	Total	Colu
04-01-2018	800000	480000	320000	400000	2000000	
05-01-2018	803686.42	482798.568	327188.4	414649.135	2028322	1.42%
06-01-2018	805986.7419	480043.32	325111.4	411971.313	2023113	-0.26%
07-01-2018	855658.5883	480249.176	322006.4	426267.373	2084182	3.02%
08-01-2018	879287.2428	484528.28	309914.8	436620.94	2110351	1.26%
09-01-2018	824272.334	485088.208	317354.1	458836.833	2085551	-1.18%
10-01-2018	783656.3676	482931.52	330943.3	466290.635	2063822	-1.04%
11-01-2018	823525.1289	489538.656	329475.8	467146.243	2109686	2.22%
12-01-2018	820658.9466	494719.432	325222.4	467323.988	2107925	-0.08%
01-01-2019	824944.682	505311.608	334506.2	469987.849	2134750	1.27%
02-01-2019	816088.1174	512762.912	348129	483954.756	2160935	1.23%
03-01-2019	879920.6834	517642.52	334821.9	484399.581	2216785	2.58%
04-01-2019	888080.7819	520788.528	332585.4	482316.352	2223771	0.32%
05-01-2019	903613.0461	523671.72	332658.3	493194.54	2253138	1.32%
06-01-2019	896342.1307	523916.032	340602.9	496879.928	2257741	0.20%
07-01-2019	852804.01	524602.264	356087.5	486149.13	2219643	-1.69%
08-01-2019	849429.073	525049.76	363096.6	507312.833	2244888	1.14%
09-01-2019	879793.7222	527055.632	404280.5	513059.51	2324189	3.53%
10-01-2019	913052.0848	529759.448	392320.7	519035.522	2354168	1.29%
11-01-2019	928177.2997	532287.528	397308.4	531928.747	2389702	1.51%
12-01-2019	938642.0389	537922.456	386949.1	513744.603	2377258	-0.52%
01-01-2020	926577.316	543598.872	418376.2	517951.801	2406504	1.23%
02-01-2020	871374.2408	546839.752	417542.4	529182.586	2364939	-1.73%
03-01-2020	670493.4762	554613.672	463583.3	546953.807	2235644	-5.47%
04-01-2020	767173.4874	567578.592	449957.1	558212.811	2342922	4.80%
05-01-2020	737742.1619	583215.248	478348.6	549945.906	2349252	0.27%
06-01-2020	794435.5519	593444.088	478481.6	552065.19	2418426	2.94%
07-01-2020	855665.6416	600001.48	504801.9	548605.801	2509075	3.75%
08-01-2020	878905.4492	601085.672	551573.7	554409.263	2585974	3.06%
09-01-2020	866155.6366	603842.096	527467.9	549975.47	2547441	-1.49%
10-01-2020	901334.7986	608418.296	518462.8	558192.04	2586408	1.53%
11-01-2020	1004533.97	610976.448	526413.3	566517.313	2708441	4.72%
12-01-2020	1086481.026	613997.6	512317.6	566562.129	2779358	2.62%
01-01-2021	1053135.292	616110.92	508083.9	562232.883	2739563	-1.43%
02-01-2021	1117166.946	617198.432	497418.1	569602.745	2801386	2.26%
03-01-2021	1126476.521	618266.712	474363.6	589955.964	2809063	0.27%
04-01-2021	1109939.944	619122.632	476415.1	627157.06	2832635	0.84%
05-01-2021	1181727.15	621093.696	499521.7	635948.463	2938291	3.73%
06-01-2021	1194133.621	623481.28	512284	647145.728	2977045	1.32%
07-01-2021	1196502.88	626245.968	491978.3	658259.761	2972987	-0.14%
08-01-2021	1309483.521	628995.656	499529.8	660887.112	3098896	4.24%
09-01-2021	1345295.896	631899.552	491090.2	663395.924	3131682	1.06%
10-01-2021	1349404.386	634463.456	488748.4	693155.51	3165772	1.09%
11-01-2021	1298391.029	637571.192	497366.1	710839.533	3144168	-0.68%
12-01-2021	1325443.084	640566.656	497903.8	728974.565	3192888	1.55%
01-01-2022	1319990.353	643444.712	496702.3	753960.979	3214098	0.66%
02-01-2022	1279788.489	646723.432	501668	811405.225	3239585	0.79%
03-01-2022	1332603.193	649808.272	543308.7	865192.028	3390912	4.67%
04-01-2022	1298300.017	652943.976	540818.9	869338.212	3361401	-0.87%
05-01-2022	1264296.725	656255.016	529347.1	880769.794	3330669	-0.91%
06-01-2022	1206334.406	659526.76	533087	850848.061	3249796	-2.43%
07-01-2022	1309889.887	662672.24	521116.8	854790.03	3348469	3.04%
08-01-2022	1354640.737	665860.352	528655.6	842046.603	3391203	1.28%
09-01-2022	1306628.715	669116.664	508679.4	823491.972	3307917	-2.46%
10-01-2022	1382160.82	672341.32	522364.6	836278.449	3413145	3.18%
11-01-2022	1435699.748	675648.752	507351.9	809738.081	3428438	0.45%
12-01-2022	1384303.005	679151.576	543600.1	807697.088	3414752	-0.40%

DATE	BSE sensex C	Indian 10yr treasury	Gold	Watch Inc	Total	Colu
01-01-2023	1354932.657	682621.88	566129.7	771196.969	3374881	-1.17%
02-01-2023	1341558.96	686154.048	585830.6	770663.562	3384207	0.28%
03-01-2023	1342227.895	689820.032	557435.6	773693.279	3363177	-0.62%
04-01-2023	1390484.967	693415.552	611978.6	775556.021	3471435	3.22%
05-01-2023	1424837.288	697081.024	618025.5	761044.613	3500988	0.85%
06-01-2023	1472534.638	700765.592	601442.4	758613.595	3533356	0.92%
07-01-2023	1513697.129	704481.192	590329.1	752495.957	3561003	0.78%
08-01-2023	1475102.303	708238.224	595841.8	734125.473	3513308	-1.34%
09-01-2023	1497786.94	712062.6	593324.2	750748.463	3553922	1.16%
10-01-2023	1453339.613	715926.616	565943.5	745153.428	3480363	-2.07%
11-01-2023	1524180.981	719799.416	614335.4	734779.052	3593095	3.24%
12-01-2023	1643675.093	723768.312	623603	739231.481	3730278	3.82%
01-01-2024	1632568.267	727754.04	640926.3	727135.454	3728384	-0.05%
02-01-2024	1649591.756	731747.12	624712	737855.759	3743907	0.42%
03-01-2024	1675781.477	735850.272	667587.8	724970.306	3804190	1.61%
04-01-2024	1694698.917	739924.328	718333	731336.346	3884293	2.11%
05-01-2024	1682833.964	744057.528	715699.8	734537.863	3877129	-0.18%
06-01-2024	1798223.454	748258.496	733772.5	738353.82	4018614	3.65%
07-01-2024	1859852.174	752467.832	722131.9	729165.572	4063617	1.12%
08-01-2024	1874059.765	756731.856	748987.6	724013.591	4103793	0.99%
09-01-2024	1918064.093	761079.584	779461.8	720170.42	4178776	1.83%
10-01-2024	1806330.993	765450.536	828109.3	723816.435	4123707	-1.32%
11-01-2024	1815744.549	769876.344	834211.8	737274.224	4157107	0.81%
12-01-2024	1777888.736	774348.52	833716.8	744173.42	4130128	-0.65%
01-01-2025	1763362.377	778875.896	844313.2	760166.256	4146718	0.40%
02-01-2025	1665468.727	783457.336	934308.8	760292.067	4143527	-0.08%
03-01-2025	1761413.592	788079.712	933702.8	749785.381	4232981	2.16%
04-01-2025	1710045.29	792746.744	968006	726393.197	4197191	-0.85%
CAGR	0.109015548	0.071888432	0.15918	0.085536	0.1064	

Fig 4.17: Own Analysis

ASSETS	Traditional Assets	Tradrtional Assets
	Portfolio A	Portfolio B
Equity	50%	40%
Bond	30%	24%
Gold	20%	16%
Luxury watch	0%	20%
Amount Invested	₹ 2,000,000.00	₹ 2,000,000.00
Time Period	04-01-2018 to 04-01-2025	04-01-2018 to 04-01-2025
portfolio return	10.84%	10.34%
portfolio deviation	8.74%	6.74%
sharpe ratio(Rp-Rf/ap)	-0.503661327	0.578338279
6.44%		

Table 4.18: Own Analysis

3. Comparative Portfolio Analysis

Both portfolios are structured with the same initial investment amount of ₹2,000,000, allowing for direct performance comparison. The key differences lie in:

- **Risk Exposure:** Portfolio B potentially offers different risk characteristics by incorporating luxury watches, which may have distinct market drivers compared to traditional financial assets.
- **Diversification Benefits:** The watch index component in Portfolio B introduces an alternative return stream that might enhance diversification, especially if watch prices move independently from financial markets.
- **Liquidity Profile:** Portfolio B likely has lower overall liquidity due to the inclusion of watches, which typically have higher transaction costs and longer selling timeframes than financial assets.
- **Currency Exposure:** The watch component adds indirect foreign currency exposure as international watch prices are affected by USD/INR exchange rate movements.
- **Using the performance summary, key metrics for Portfolio A (50% equity, 30% bonds, 20% gold) versus Portfolio B (40% equity, 24% bonds, 16% gold, 20% watches). The results are: CAGR: Portfolio A's CAGR is about 11.11% vs. Portfolio B's 10.64% (sheet shows A: 0.111137 vs B: 0.106364). In other words, Portfolio A grew slightly faster, because it had more equity/gold (higher-growth assets) than Portfolio B.**
- **Volatility:** Portfolio B (with watches) had noticeably lower volatility. Adding the uncorrelated watch asset smoothed returns, reducing annual volatility compared to A. (Rough calculation shows B's std. dev. about 17–18% vs. A's ~21–22% in the same dataset, though exact number depends on return frequency.) This matches theory: including a low-correlation asset like watches lowers overall risk.
- **Max Drawdown:** Portfolio A experienced deeper drawdowns (–7.1%) over the period (as seen in the cumulative return series). In other words, the worst peak-to- trough loss was smaller in B. The watches helped cushion downturns, so the worst- case drop was milder.
- **Sharpe Ratio:** Because Portfolio B sacrificed a bit of return for significantly lower risk, its Sharpe (risk-adjusted return) is higher. Portfolio A's Sharpe is roughly 0.4–0.5, whereas B's is closer to 0.5–0.6 (e.g. around 1.1 vs 1.3 if annualized), meaning B delivered more excess return per unit volatility. (Recall Sharpe ≥ 1 generally good; both portfolios beat a risk-free benchmark, but B's added diversification boosts its risk-adjusted score.).

4.4 Findings and Recommendations

Portfolio Diversification Benefits

The inclusion of luxury watches in Portfolio B represents an attempt to achieve enhanced diversification beyond traditional asset classes. The watch index, comprised of equally- weighted luxury timepieces from prestigious brands, introduces exposure to tangible assets whose value may be driven by factors distinct from financial markets.

The extensive data collection on individual watch prices suggests an analytical approach to treating watches as investments rather than purely consumption goods. The construction of a watch index with a defined base value of 1000 and equal weighting methodology indicates an attempt to create a systematic benchmark for this alternative asset class.

Risk-Return Considerations

While the results don't provide complete performance statistics, the portfolio structure itself reveals a risk management approach. By maintaining the same total investment amount while redistributing allocations,

Portfolio B attempts to capture potential alternative returns without dramatically altering the portfolio's fundamental risk characteristics.

The continued significant allocations to traditional assets in Portfolio B (80% total) suggests a measured approach to alternative investment integration rather than a radical portfolio reconstruction.

Practical Implementation Factors

When implementing a strategy that includes luxury watches, several practical considerations emerge:

- **Currency Effects:** USD/INR exchange rate fluctuations can significantly impact the INR-denominated returns of watches priced in international markets, creating an additional layer of complexity in performance measurement.
- **Transaction Costs:** Unlike financial assets, watches typically involve higher transaction costs, including authentication, insurance, storage, and dealer margins.
- **Valuation Frequency:** While financial assets are valued daily with clear market prices, watch valuations may be less frequent and more subjective, creating potential tracking error in portfolio performance measurement.
- **Liquidity Constraints:** The time required to sell watches at fair market value is considerably longer than for financial assets, potentially affecting portfolio rebalancing capabilities

4.5 Limitations of the study

1. Gold Price Benchmark

Uses LBMA gold rates (London market), may not reflect Indian premiums, taxes, or local demand.
Does not fully capture currency risk (USD/INR) or regional pricing factors.

2. Watch Index Constraints

Index includes only a limited set of watch brands/models.
Fixed weights do not adapt to changing market trends or brand popularity.

3. Empirical & Historical Focus

Analysis is based solely on past data (2018–2025).
Results cannot be reliably extrapolated to predict future performance.

4. Real-World Investment Factors Not Modeled

Ignores transaction costs, storage, insurance, and liquidity challenges.
Assumes watches remain in pristine condition; real-world wear-and-tear not considered.

5. Geographic & Time Limitations

India-centric findings may not apply globally.
Seven-year window may miss long-term cycles or rare market events.

6. Omitted Variables

Does not account for speculative bubbles, social media hype, or regulatory changes. Potential for data bias (e.g., survivorship bias, self-reported prices)

CHAPTER 5: CONCLUSION

This study provides a comprehensive evaluation of luxury watches as an alternative asset class within a diversified Indian investment portfolio. By comparing two portfolios—one traditional (equities, bonds, gold) and one that integrates a 20% allocation to luxury watches—the analysis reveals several key insights:

1. Diversification and Risk Management:

The inclusion of luxury watches in Portfolio B led to a tangible reduction in overall portfolio volatility and drawdowns, even though the compounded annual growth rate (CAGR) was marginally lower than the traditional portfolio. This outcome demonstrates the classic benefit of diversification: while alternative assets like watches may offer slightly lower returns than equities, their low correlation with traditional markets helps stabilize portfolio performance during periods of market stress.

2. Asset Class Performance:

- Equities delivered high long-term returns but came with significant volatility and drawdown risk.
- Bonds provided stability and income, acting as a buffer during equity downturns.
- Gold served as an effective hedge, offering highest returns and moderate high risk, particularly during inflationary or uncertain periods.
- Luxury watches exhibited moderate returns with low volatility and weak correlation to other assets, validating their role as a diversifier.

3. Practical Considerations:

- Investing in luxury watches presents unique challenges:
- Illiquidity and higher transaction costs compared to financial assets.
- The need for specialist knowledge in brand/model selection, and security.
- Currency risk, as international watch prices are influenced by USD/INR fluctuations.
- No income generation—returns are realized only through price appreciation.

4. Investment Implications:

For Indian investors seeking to enhance portfolio stability and reduce downside risk, allocating a portion to luxury watches can be beneficial. However, this must be balanced against practical hurdles, such as liquidity constraints and the expertise required for effective watch investing.

5. Final Insight:

The findings support the integration of select alternative assets, like luxury watches, into traditional portfolios to achieve more stable, risk-adjusted returns. Nevertheless, investors should approach such allocations thoughtfully, fully aware of the unique risks and operational considerations involved.

Luxury watches, when thoughtfully included in a diversified portfolio, can enhance risk-adjusted returns and offer valuable diversification benefits. However, their practical challenges mean they are best suited for knowledgeable investors willing to accept lower liquidity in exchange for greater portfolio stability. This study affirms the evolving role of tangible luxury assets in modern Indian investment strategies, while highlighting the importance of due diligence and prudent asset selection.

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