

# **Strategic Engineering & Valuation of a Capital-Guaranteed Structured Product**

Integrating BPCE Fixed-Income Support to pay the premium of a Euro Stoxx 50 Call Option in the 2026 Macroeconomic Landscape.

Presented by:

**BESSE Pierre : 722153**

**ANGLADE Antonin : 710123**

**DOMERGUE Mathis : 727245**

# Introduction: Financial Engineering in an Context of "Regime Ruptures"

The global financial landscape of February 2026 presents a unique entry point for strategic investment. The traditional 60/40 portfolio is being superseded by hybrid structures, capable of capturing the imminent upside of European blue chips.



## Geopolitical Shift

Anticipated diplomatic breakthrough in Greenland Tariff discussions, triggering a "risk on" rotation.



## Sectoral Transformation

Resolution of logistical bottlenecks and stabilization of consumer staple giants driving margin expansion.



## Financial Dimension

ECB stabilizing rates near 2.15%, inflation under control, and real growth returning.

This report details the design, pricing, and strategic implementation of our "European Renaissance Bond."

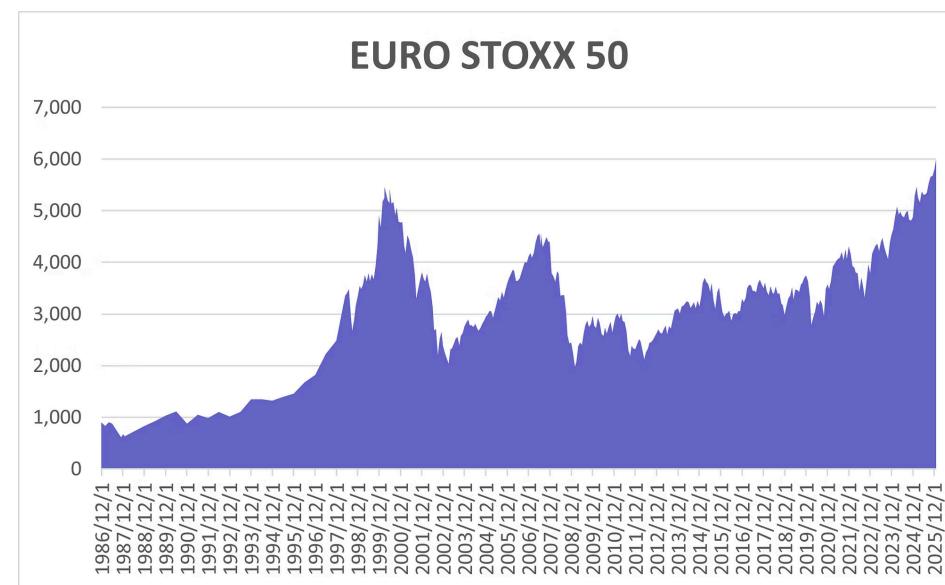
# Instrument Objective: Combine Capital Preservation & Profit Potential

Our project aims to construct an instrument that satisfies two seemingly contradictory mandates: 100% capital preservation at maturity and the ability to profit from the anticipated bullish breakout of the European blue chip market.



## Bond Floor

Leveraging the high yield environment of the BPCE 4.2% 2029 bond as the foundation for capital protection. This product offers a convex payoff profile suited for the current economic resurgence, evaluated under AMF regulatory framework.



## Performance Engine

Utilizing an Out of the Money Call option on the Euro Stoxx 50 to capture market upside.

# I.2. Choice of Components and target investor

Our structure product equal:

**BPCE 4,2%(24/10/2029) + Call Option SX5E**

## Target Investors

Designed for defensive, conservative profiles with strong loss aversion and preference for asymmetric payoffs.

Our core target market of **high-net-worth individuals and institutional investors** (entry price of €15,875) .

## Capital-Guaranteed Structure

Ensures full capital protection at maturity, unlike yield-enhancement products with downside risk.

This combination balances stability with strategic exposure to market dynamics.

**Bond Component:  
Stability Anchor  
BPCE 4,2%(24/10/2029)**

The BPCE 4.2% bond maturing in 2029 was selected for its consistency with the European environment. Groupe BPCE is a major European banking institution, offering a meaningful yield advantage over Eurozone sovereign rates.

**Equity Underlying: High-Beta Recovery Exposure  
Call Option SX5E**

Ideal vehicle to capture the maximum upside of a 'risk-on' rotation.

By selecting a structurally reactive index, we amplify the gains from the diplomatic breakthrough.

## **II. Instrument Design: Economic Context & Strategic Relevance**

The design of this capital-guaranteed structured product is a deliberate response to Europe's structural uncertainty since 2024-2025, marked by geopolitical tensions, trade frictions, and weak growth. While addressing geopolitical tensions and weak growth, it simultaneously signals a profound confidence in the long-term recovery of the European market.

### **Economic Cycle Alignment and Risk Perception in 2026**

A 3-4 year maturity aligns with the expected duration of European economic tensions, offering a transitional investment solution.

# III. Pricing & Valuation: Quantitative Engineering

The bond floor ensures principal return regardless of Euro Stoxx 50 trajectory. The 4.20% coupon rate from the BPCE bond provides a steady income stream.

Parameters	Value
Coupon rate	4,20%
Principal	15 170,00 €
Price	15 875,41 €
coupon	637,14 €
period	14,00
Quarter	4,00
rf rate	2%
rf rate/quarter	0,50%
Coupon/quarter	159,29 €

Period	cash flow	discount
1	159,29	158,49
2	159,29	157,70
3	159,29	156,92
4	159,29	156,14
5	159,29	155,36
6	159,29	154,59
7	159,29	153,82
8	159,29	153,05
9	159,29	152,29
10	159,29	151,54
11	159,29	150,78
12	159,29	150,03
13	159,29	149,28
14	15329,29	14295,42
Total	17399,99	16295,43

## Key Parameters

- Principal: €15,170
- Coupon Rate: 4.20% (BPCE bond)
- Market Price: €15,875.41
- Risk-Free Rate: 2.00% (0.50% quarterly)

The Total Present Value of €16,295.43 reveals a surplus of €420.03 that allow us to pay our premium's option.

The minimum subscription for our "European Renaissance" product is set at €15,875 per unit, matching the capital required to engineer the full principal guarantee alongside the bullish derivative overlay.

# III. Pricing & Valuation: Monte Carlo Simulation

Our valuation integrates a Monte Carlo Simulation to stress-test statistics, generating 520 of potential price paths for the Euro Stoxx 50.

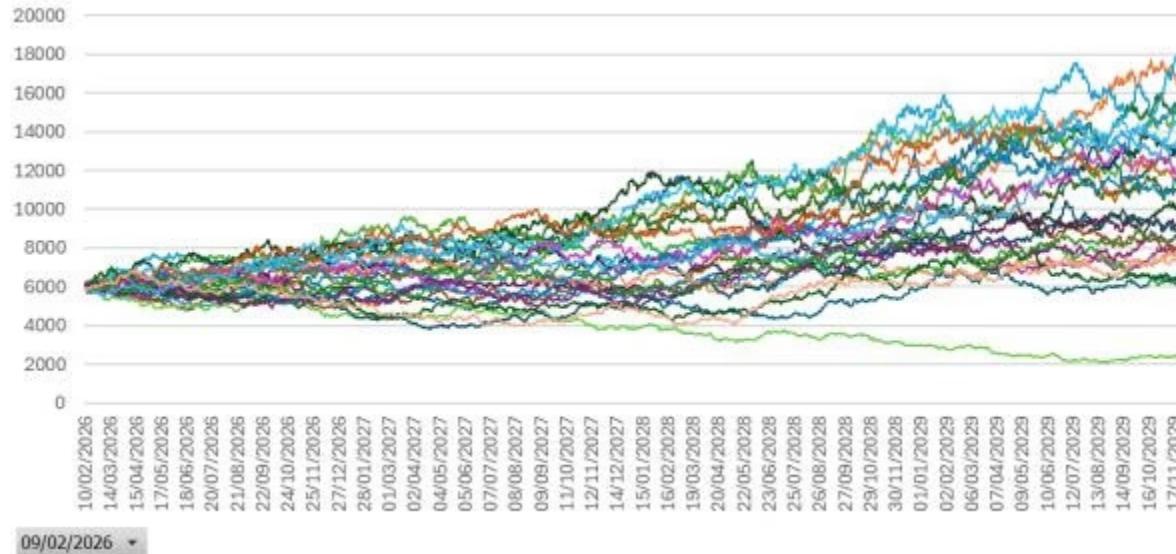


Figure 1: Projection of 26 different scenarios from the Monte Carlo simulation.

## Simulation Results

- 86% of simulations finish with a price above the strike of €6,400.
- Average price of €10,390, confirming the strike price can be hit easily.

The simulation incorporates a projected "drift" of the European economy, benefiting from the 2026 industrial recovery, making the risk of not reaching €6,400 low.

Return	STDV	Initial price	T
0.0004	0.010542	6,011.60	1391

=Initial\_price\*EXP((\$return\$-0.5\*\$return\$^2)+\$STDV\$\*NORM.S.INV(RAND())))

# IV. Market Feasibility & Strategy: Navigating the 2026 "Risk-Off" Paradigm

The commercial viability of this product in February 2026 is linked to the Eurozone investor's "Search for Safety."

## SWOT Analysis

**Strengths:** 100% capital guarantee, not subject to currencies rates fluctuation, AMF compliant

**Weaknesses:** Lower return than stock buying if the Eurostoxx 50 is growing

**Opportunities:** Diplomatic breakthroughs, market shift to "risk on."

**Threats:** Increase of the inflation.

# V. Conclusion: Strategic Synthesis & Professional Recommendations

The European Renaissance transforms "Bearish Fear" into a "Structured Opportunity," leveraging the 4.2% bond to insure the payment of the premium of the call option on SX5E.



## Launch Phase

Feb 9, 2026: Capitalized on yield differential, generating €420.03 "option budget" for a leveraged Long Call strategy on Euro Stoxx 50.



## Observation Phase

2026-2028: Option Greeks dynamic interplay. Delta increases as SX5E trends to 6,400, capturing gains. Volatility supports option value.



## Terminal Settlement

Dec 21, 2029: Investor shielded from loss.

If  $SX5E \leq 6400 = 0 - (Rf * C)$

If  $SX5E > 6400 = \ln((C + (SX5E - 6400) * (C \% 15875.41) - (Rf * C)) / C)$

Rf : Risk free rate

C : Capital invested

The "European Renaissance" is a data-supported trend, providing a fundamental buffer for the 6,400-point target. This product is a core "safe-haven" allocation for proactive, cautious investors.