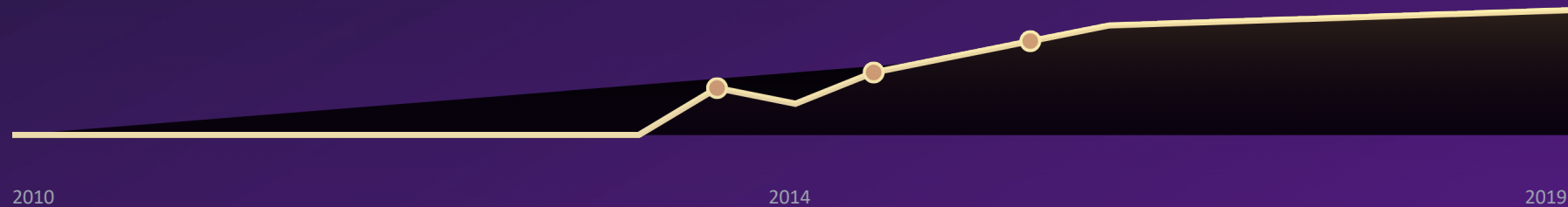


Negative Yield Debt

Market Dynamics and Financial Implications

An analysis of global negative-yielding debt markets, their drivers, and implications for the financial system



Understanding Negative Yield Debt

📖 Definition

Negative yield debt refers to bonds where investors receive less money at maturity than their initial purchase price, effectively paying the borrower for the privilege of holding their debt.

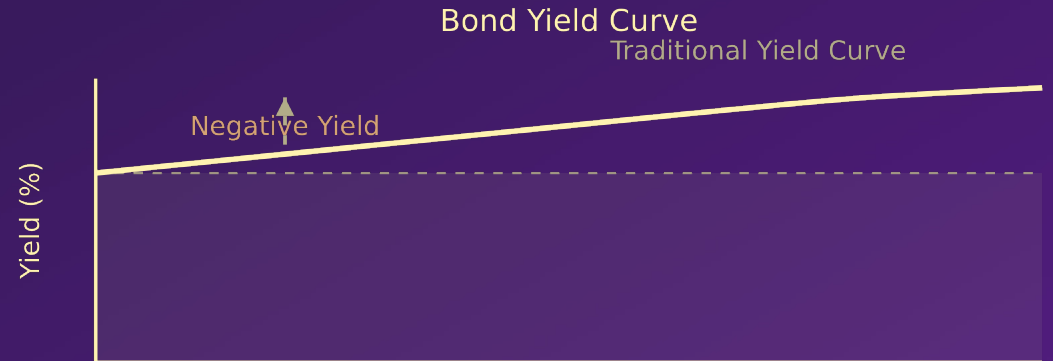
🔑 Key Characteristics

- 📈 Yield is expressed as a negative percentage
- 💰 Investors pay fees to lend money
- 📉 Occurs during periods of accommodative monetary policy

💡 How It Works

Purchase Price	→	Face Value	→	Net Result
\$1,000		\$950		-5%

An investor who buys a \$1,000 bond with a 5% negative yield will receive only \$950 at maturity, effectively paying \$50 to keep the bond until maturity.



Global Scale of Negative Yielding Debt (2010-2019)



Historical Growth

The total market value of global negative-yielding debt has experienced a significant surge over time, reaching unprecedented levels. This growth reflects a period of extraordinary monetary policy and economic conditions.

Global Negative-Yielding Debt: 2010-2019



Key Insights



Rapid Increase

Significant growth began in 2014, with negative-yielding debt jumping from \$0 to \$2 trillion by September.



Global Impact

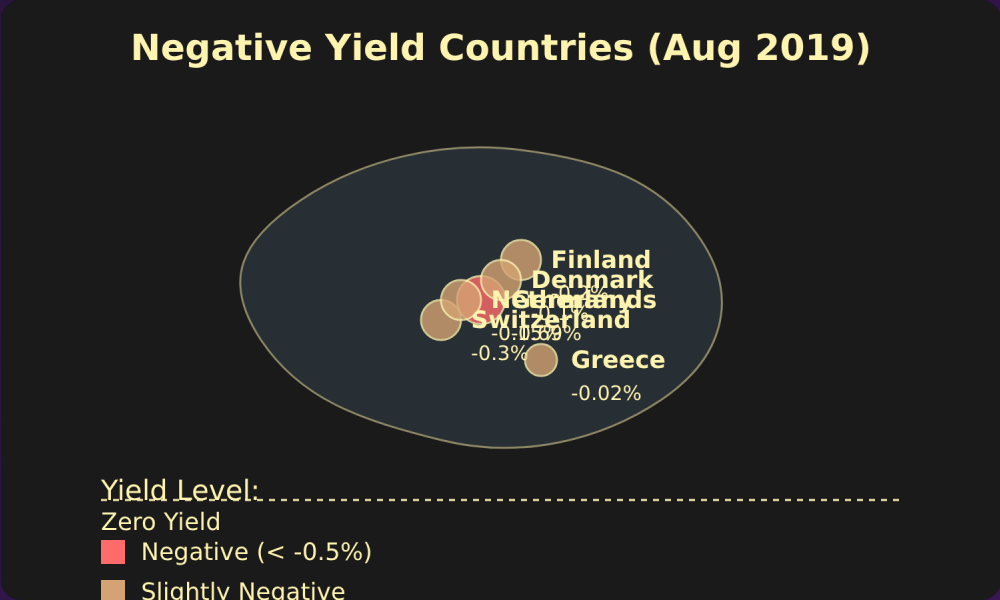
By August 2019, the sum total reached \$16 trillion, with approximately \$15 trillion of government bonds traded at negative yields.



Market Share

Geographic Distribution of Negative Yields

Country-Specific Yield Curves



Negative Yield Countries (Aug 2019)

Country	Maturity	Yield
Germany	10 years	-0.69%
Germany	30 years	-0.11%
Switzerland	All maturities	Below 0
Finland	All maturities	Below 0
Denmark	All maturities	Below 0
Netherlands	All maturities	Below 0
Greece	3 months	-0.02%

Key Insights

Ultra-Long-Term Bond Examples

🔑 Extreme cases of negative yields extending to century-long maturities demonstrate investor behavior in a low-yield environment.

🏛️ Austria's 100-Year Bond

100-Year Maturity

- 📅 Issued September 2017
- 📈 Initial yield: 2.1%
- 📈 Yield as of Sep 2019: 0.62%
- 💰 Total Return YTD: >60%

🇩🇪 Germany's 30-Year Bond

30-Year Maturity

- 📅 Issued August 2019
- 📈 Initial yield: -0.11%
- 🕒 Historic first negative 30-year issuance
- 📈 Yield as of Sep 2019: -0.17%

🏢 Additional Examples

Switzerland's 50-Year Bond

August 2019

Below 0%

All maturities below zero

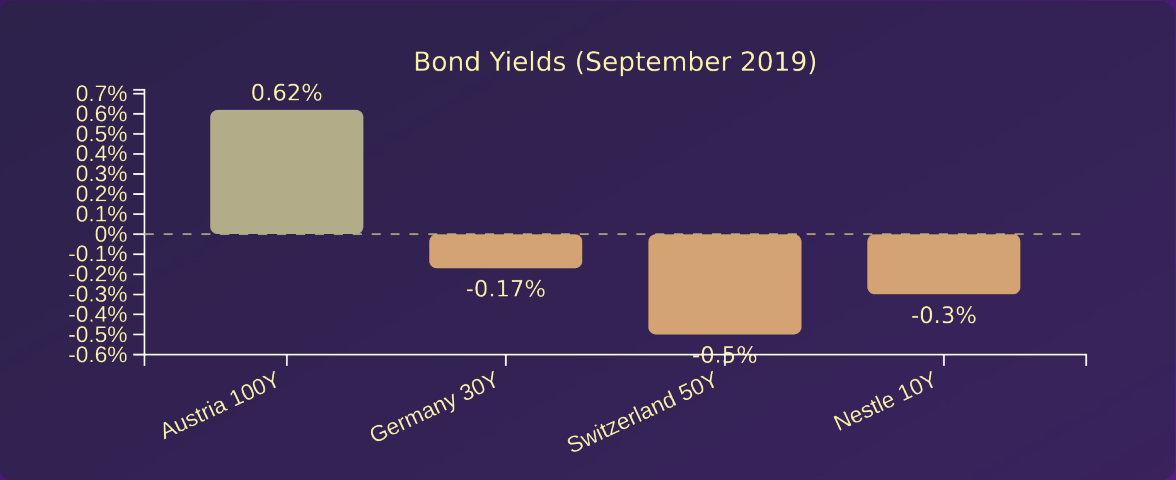
Nestle's 10-Year Corporate Bond

November 2017

Below 0%

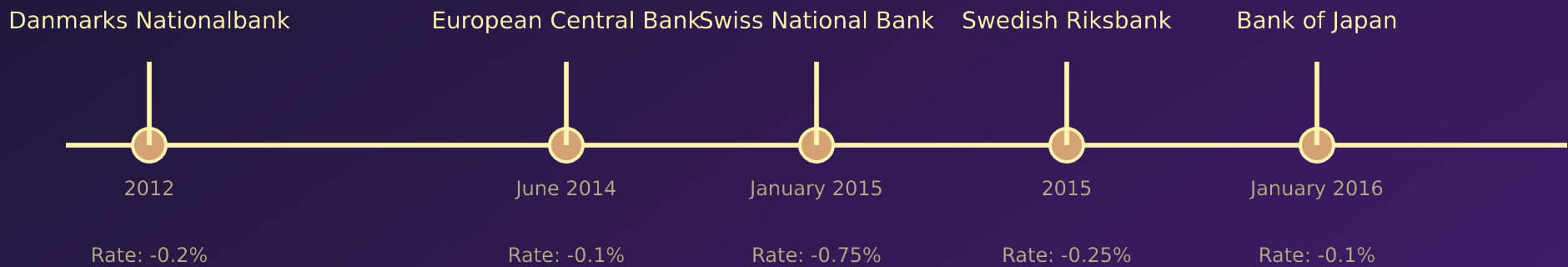
First on-record corporate bond below zero yield

📈 Yield Comparison (Sep 2019)



Central Bank NIRP Implementation Timeline

i Negative Interest Rate Policy (NIRP) adoption by major central banks since 2012, aimed at stimulating economic activity and combating deflationary pressures.



European Central Bank

Implementation: June 2014

Initial Rate: -0.1%



Danmarks Nationalbank

Implementation: 2012

Initial Rate: -0.2%



Swiss National Bank

Implementation: January 2015

Initial Rate: -0.75%



Swedish Riksbank

Implementation: 2015

Initial Rate: -0.25%



Bank of Japan

Implementation: January 2016

Initial Rate: -0.1%

Impact on Banking Sector Profitability

NIM Compression

Negative Interest Rate Policies (NIRP) have compressed Net Interest Margins (NIM) in regions where they were implemented, as banks cannot fully pass negative rates to retail depositors.

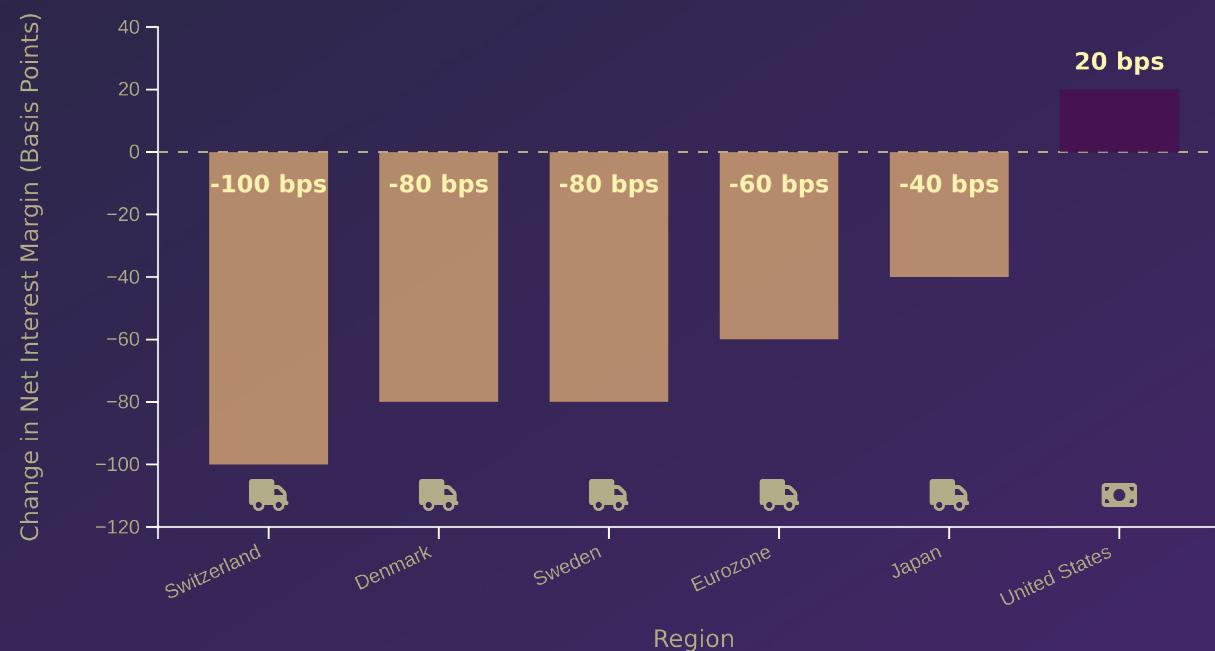
This has reduced banking system profitability and altered business models across affected regions.

Key Insights

- ✓ Switzerland experienced the largest NIM decline (-100 basis points)
- ✓ Denmark and Sweden also saw significant compressions (-80 bps each)
- ✓ United States, which didn't implement NIRP, saw a 20 basis point increase in NIM



Change in Net Interest Margin (2014–2019)



Source: Company filings, OCC Economics Department calculations, Bloomberg (OCC, 2021)

Financial System Distortions



Search for Yield

Investors move into riskier asset classes to achieve desired returns.

- Increased valuations in credit products, equities, and private markets
- Pension funds and insurance companies accept diminished returns

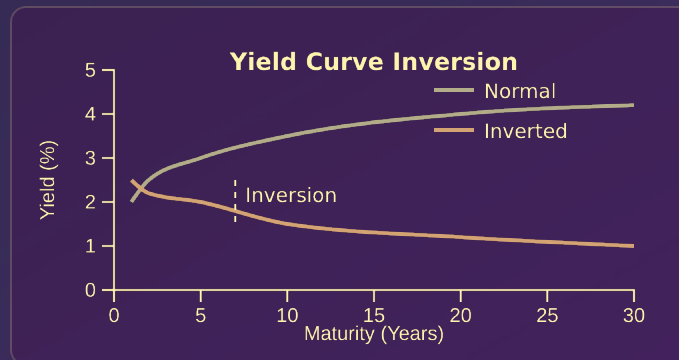
“ The "search for yield" phenomenon describes how investors are compelled to move into riskier asset classes.



Yield Curve Inversion

Inversion signals market apprehension about future growth.

- Historical recession predictor
- Global negative yields exacerbate inversion



Portfolio Shifts

Investors shift allocations to maintain yield targets.

- Increased risk-taking restores prospective returns
- Regulatory requirements compel negative-yield purchases



Key Risk:

Increased volatility

Investor Rationale for Negative Yield Purchases

Despite counterintuitive returns, investors purchase negative-yielding bonds for several strategic reasons beyond traditional income generation.



Safety & Capital Preservation

In times of uncertainty, government bonds are perceived as safe-haven assets. Investors accept negative yields to protect principal from greater losses in riskier assets.



Price Appreciation Expectation

If investors anticipate rates will fall further into negative territory, bond prices will rise. They can sell before maturity for a profit, even if holding to maturity would result in a loss.



Currency Hedging/Appreciation

Investors might buy negative-yielding bonds denominated in another currency if they expect that currency to appreciate, offsetting the negative yield or generating a positive return.



Regulatory/Mandate Requirements

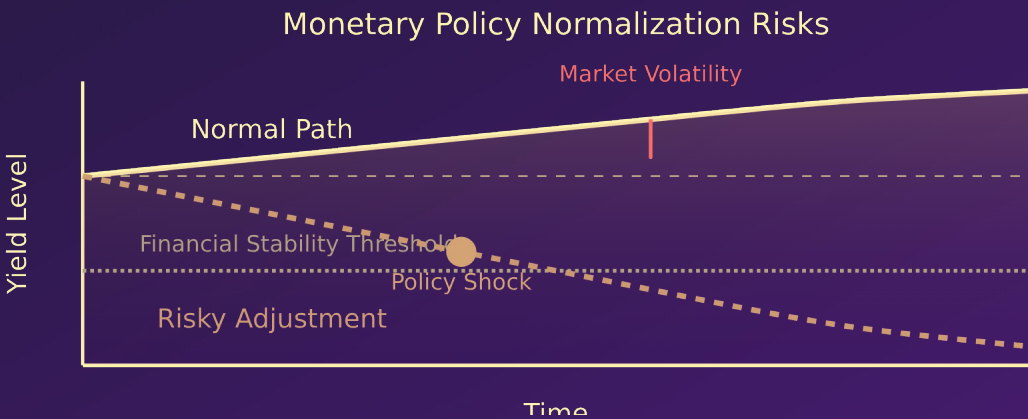
Institutional investors like pension funds are often mandated to hold certain proportions of highly-rated, liquid government bonds, regardless of yield. These requirements compel them to purchase negative-yielding debt.

Sources: Schroders, RBC GAM, NEAM Group, CFI, CNBC, PortfolioConstruction Forum

Future Outlook and Policy Normalization Risks

⌚ Long-term Persistence Factors

-  **Aging Demographics**
Increasing population age profiles in developed economies boost saving rates
-  **Low Productivity Growth**
Structural factors limiting economic output per worker
-  **Global Savings Glut**
Excess global savings over investment opportunities



📍 Future Trajectory

The future path of negative yields depends on:

 Central Bank Actions Monetary policy normalization pace	 Fiscal Policy Government spending and debt levels	 Global Economy Economic growth and inflation trends
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