Invesco

# High Yield, High Quality, Highly Customized:

## Invesco Indexing Case Study

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**Ken Masse, CFA**
Director of Client Engagement

> If 1% of the portfolio could be invested in higher-dividend, high-quality equities, it could help reduce the drag of negative yields.

## Summary

- A large European bank faced a familiar dilemma: Its € 100 bn portfolio of high-quality liquid assets—a Basel III requirement—was struggling with negative yields in the Eurozone.
- Invesco Indexing was brought in to develop a customized index of high-dividend-yield, high-quality equities that could align with the bank's regulatory obligations and provide enough yield to counterbalance the drag of their portfolio's low-yielding debt.
- The quantitative expertise of Invesco Indexing and the depth of resources available across Invesco, Ltd. were marshalled to create one of the group's most customized indexes to date—solving a very specific and pressing client problem.

## When "High Quality" fixed income means diminishing returns

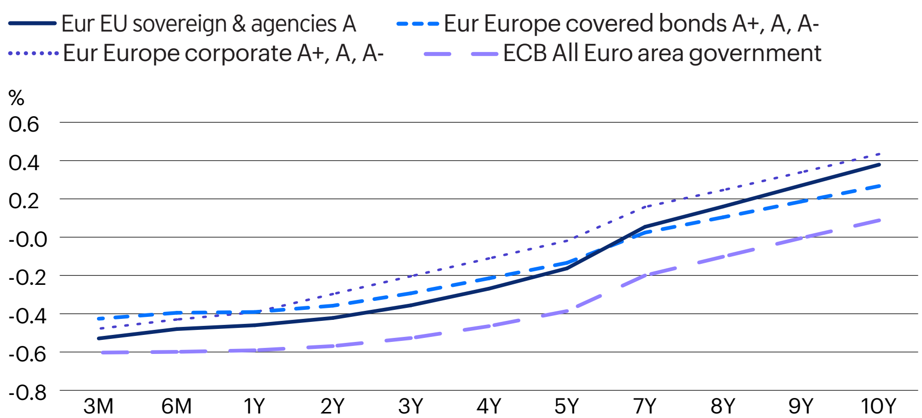
**"We're struggling with negative yields."**

That is how the treasurer of a global Netherlands-based bank described the problem to a relationship manager at Invesco. European regulations require banks to invest a significant portion of assets in very liquid, low-risk securities. But yields are at historically low levels, and are unlikely to rise given the central bank commitments to lower rates.

The bank's treasury team thought there was a possible solution, however. Its € 100 billion high-quality liquid asset portfolio was invested primarily in short-term high-quality debt. If just 1% of the portfolio could be invested in higher-dividend, high-quality equities, it could help reduce the drag of negative yields.

Could Invesco Indexing develop an index strategy comprising high-quality equities that would deliver consistent high yields and align with Basel regulations?

**A Long Road Yet to Positive Yields**




Source: Bloomberg March 2021 The European Sov + Agency curve is represented by "EUR EU Sovereign & Agencies A+ BVAL Yield Curve". **Past performance is no guarantee of future performance. An investment cannot be made directly in an index.**

### Understanding client needs *and* detailed regulations

To foster a more resilient banking sector in the aftermath of the global financial crisis, Basel III introduced the Liquidity Coverage Ratio. This requirement ensures banks have an adequate stock of unencumbered high-quality liquid assets (HQLA) that can be converted easily into cash to meet liquidity needs during a 30-day scenario of stressed liquidity.

Invesco Indexing, an independent index provider within Invesco, was brought in to structure an equity index strategy with construction rules and methodology aligned with the bank's requirements.

Our first task was to understand the very detailed and stringent HQLA regulations. We conferred with Invesco's Investment Solutions group for its practical experience with HQLA and its requirements, which include these major provisions:

> Our process is heavy on collaboration and iteration—all centered around our clients.
>
> **Andrew Waisburd, PhD**
> Head of Invesco Indexing

| Key requirements of Basel III's HQLA regulations | |
|---|---|
| **General requirement** | Investments cannot include the stock of the bank itself or of most other financial institutions. |
| **General requirement** | Investments must be liquid, with ease and certainty of valuation. |
| **Currency requirement** | Holdings must be denominated in the same currencies as cash flows (liabilities). |
| **Major stock index requirement** | Holdings must also be "sufficiently liquid." This liquidity is proxied by a security's membership in a major stock index of its home country. |
| **Drawdown requirement** | No security can have declined by 40% or more in any 30-day period. |

At our initial discussion, the bank's treasury team also included two additional investment requirements:

| A minimum dividend yield of **2.5%** | A strong focus on **quality** |
|---|---|

**Constructing rules, guiding our clients**

We began tackling this laundry list of objectives by applying a transparent, rules-based set of inclusion and exclusion requirements. Our first challenge was meeting the HQLA requirements, which are more numerous and far more restrictive than the brief list above might suggest, and yet are not all clearly defined from a practical index design standpoint. That meant:

- Removing the entire financial sector
- Meeting liquidity standards by applying tests on bid-ask spread and on liquidity as a percentage of market capitalization.
- Discovering that the "sufficiently liquid" clause was ambiguous. Most countries don't specify what their "major stock index" is. To solve this lack of clarity, we developed a proxy based on an example presented by the European Central Bank (ECB).
- Also learning that HQLA's drawdown requirement (that no security can have declined by 40% or more in any 30-day period) does not specify when the period under consideration must begin.

  After a number of discussions within Invesco Indexing and consultation with other groups at Invesco. for their expertise on this narrow question, the bank's treasury team concluded that a starting point of January 2009 would serve as a fair standard.

Index construction at Invesco Indexing always involves ongoing discussion and collaboration with clients as their objectives evolve over the course of the engagement. For example, the bank initially requested a portfolio denominated in EUR only, but shortly thereafter asked us to explore different currency denominations of the strategy, after which we settled on a strategy that combined euros, U.S. dollars, and pound sterling.

We tested many iterations of possible index solutions, showcasing with each iteration the impact and tradeoffs of different construction factors on portfolio performance, yield, and quality exposure to ensure all characteristics of the index were aligning with the client's expectations.

For example, when it comes to "quality," appearances can deceive. A company with a high dividend yield actually may be in early stages of decline. The stock price may have begun to fall, while the company's dividend payout policy has yet to catch up to its impaired business outlook.

> **This may be the best example of how we can truly customize an index.**
>
> **Eric Cheng, FRM, CFA(R)**
> Director of Index Research

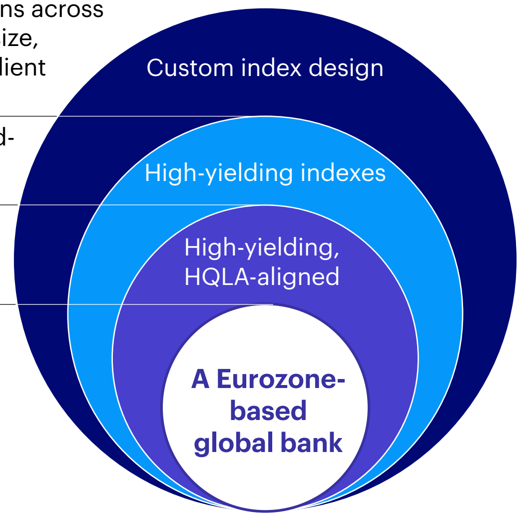
**Bringing every level of Invesco's expertise to our clients**

Providing customized index solutions across asset class, region, market status, size, factor, ESG awareness, and other client preferences

Helping clients achieve higher-yielding index strategies

Helping firms achieve high-yield portfolios that are compliant with Basel III HQLA regulations

Designing a solution that achieves higher yield, adheres to regulatory restrictions, and is customized to the preferences of the client




Source: Invesco Indexing. For illustrative purposes.

Introducing and customizing factors is just one area where Invesco Indexing draws on its team's career experience as quantitative investors—including prior senior roles at Invesco's Quantitative Strategies team. For this engagement, we developed a quality factor that seeks to identify and avoid higher-yielding stocks of dubious quality through transparent rules. At the same time that we introduced this factor to the index, we engaged the bank's treasury team in a discussion about quality.

The outline of the index began to take shape:

### Universe
- Eurozone, developed market, large- and mid-cap securities
- Traded in EUR and on exchanges where EUR is the dominant currency
- Included in "major indexes"

### Security selection
- Factor model: quality and yield (equal-weighted)

### Security weighting
- Model factor-tilted market cap

### Exclusionary criteria
- Financial stocks
- Illiquid securities (based on bid/ask spread and volume turnover)
- Securities with drawdown > 40% during any 30-day calendar period between 1/1/09 and 12/31/20

**Deep, long-term client engagement**

By its nature, the ongoing discussion that takes place during index construction encourages introspection by clients, often uncovering other needs or requirements. Not long into our engagement, the bank presented us with six additional goals:

- Exclude GBP, and hold USD to a maximum 30%
- Include 40 to 80 names, with a total size range of 1% to 5% of the HQLA portfolio
- Exclude real estate
- Minimize turnover for more of a buy-and-hold approach

> **As a client of Invesco Indexing, you get the whole organization, whether it's a straightforward index or a highly customized solution. You get the best of Invesco.**
>
> **Ken Masse, CFA**
> Director of Client Engagement

## Finally, the bank increased its desired yield from 2.5% to 3.5%

Our work in this round of index construction focused on features outside of HQLA restrictions, including the tradeoffs between:

- High-quality securities, high-yield securities, and low turnover
- Diversification* and concentration

For example, maintaining high quality requires more turnover than a strict buy-and-hold strategy will allow. A yield objective may also require higher turnover. Although it was possible to create a buy-and-hold strategy that provided a fairly certain 3.5% yield, without the ability to change holdings we could not guarantee that yield six months later, much less a year later.

As experts in fixed-income investing, the bank's treasury team had less experience with equities. The success of our partnership depended on our ability to share with the bank many aspects of equities that are apparent only to investors with long experience investing in the equity markets.

For instance, although we had developed a strategy that met the bank's yield goals, the treasury team was concerned to see some equities yielding under 3.5%. Our suggestion to keep these high-quality-scoring, lower-yielding equities included additional explanation around managing risk through diversification.

To meet the bank's ESG requirements, we drew on previous work prepared in partnership with Invesco's global ESG team. These specialists go well beyond exclusionary tactics, advising clients on how to capture and implement ESG considerations and even on how to engage with specific companies on ESG investing.

**This phase of index construction produced the following additional features:**

- Dividend yield ≥ 3.6%, and minimum > 0%
- Individual security weights: minimum 1%, maximum 5%
- Individual sector/country weights: +/- 10% (versus comparative benchmark)
- Name target: 50, 40, 30 (three strategy options)
- Exclude REITs
- Exclude non-ESG[1]

**We've succeeded only when it works for our clients**

Further into the index construction phase, the bank requested a last set of additional criteria:

- EUR
- Remove turnover constraints only
- Allow oil & gas power generation stocks
- Additional ESG exclusions: private prisons, weapons, UN Global Compact non-compliant, and high controversy companies (those with Sustainalytics Controversy Scores of 4 or 5 on a 1-5 scale)

The final touches in our index construction included the creation of three index strategies—the top 50, 40, and 30 names by factor model score—and rebalancing either semi-annually or quarterly.

**During the index construction phase, each of the resulting three index strategies:**

- May achieve the bank's yield target through time
- Provide consistent high quality exposure
- Align with HQLA requirements
- Avoid client-defined, objectionable industries and securities

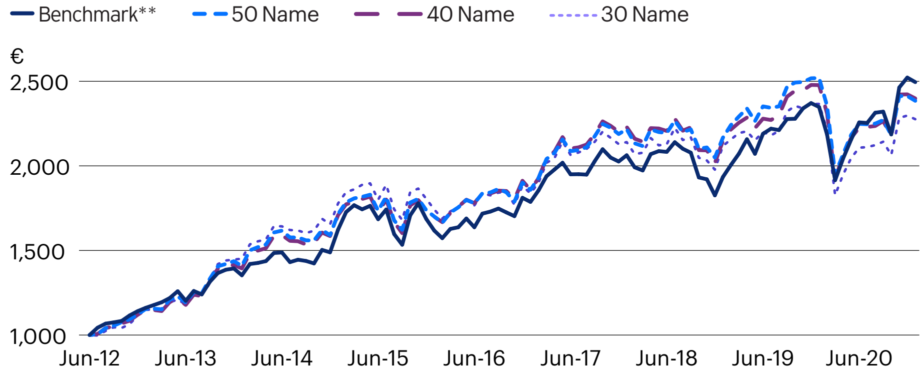
1. Non-ESG industries were defined as companies deriving more than 5% in revenue from tobacco production, recreational cannabis production, coal extraction, oil and gas extraction and power generation (including Arctic oil and gas), and shale energy.

* Diversification does not guarantee a profit or eliminate the risk of loss.

> To us, 'success' is less about building what seems brilliant to us, more about delivering results for clients. And especially for clients with really tough challenges.

**Andrew Waisburd, PhD**
Head of Invesco Indexing

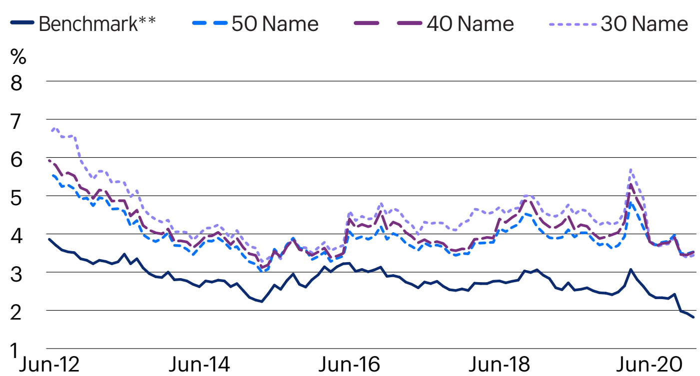
**Generally in line with the benchmark**
Invesco Eurozone Focused Quality + Yield Strategy: Performance




Source: Invesco Indexing. 30 June 2012 to 31 January 2021. All returns shown in EUR. The Invesco Eurozone Focused Quality + Yield Strategy incepted on March 1, 2021 and the Comparative Benchmark has not incepted yet; all data prior to launch dates are back-tested. The Comparative Benchmark is a market cap weighted strategy that includes all securities in the index universe after exclusionary criteria have been applied. Back-tested performance (i.e. calculations of how the strategy might have performed over that time period had the strategy existed) is subject to inherent limitations because it reflects retroactive application of a methodology and selection of constituents with the benefit of hindsight. **Past performance, actual or back-tested, is no guarantee of future performance.**

As holdings decrease from 50 to 40 to 30 securities, yields and quality exposure increase, but so do risk and tracking error. The bank ultimately chose the 40-security index as the best mix of risk and yield potential.

**Yield target achieved over time**
Invesco Eurozone Focused Quality + Yield Strategy: Yield



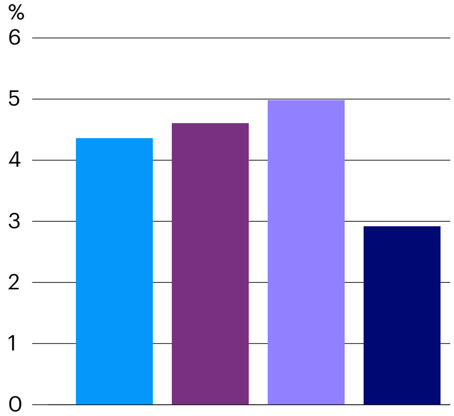

| Average yield (%) | |
|---|---|
| 30 Name | 4.46 |
| 40 Name | 4.13 |
| 50 Name | 3.94 |
| Benchmark | 2.82 |

Source: Invesco Indexing. 30 June 2012 to 31 January 2021. The Invesco Eurozone Focused Quality + Yield Strategy incepted on March 1, 2021 and the Benchmark has not incepted yet; all data prior to launch dates are back-tested. Back-tested performance (i.e. calculations of how the strategy might have performed over that time period had the strategy existed) is subject to inherent limitations because it reflects retroactive application of a methodology and selection of constituents with the benefit of hindsight. **Past performance, actual or back-tested, is no guarantee of future performance.**

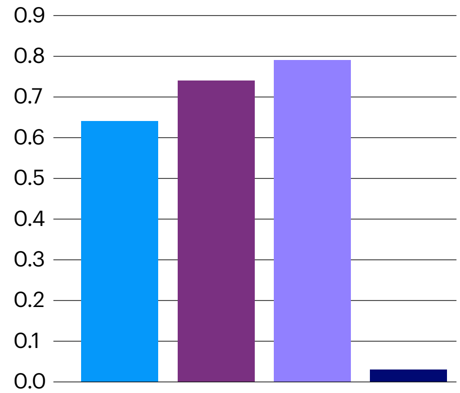
** The Comparative Benchmark is a capitalization weighted benchmark that includes all securities in the Invesco Indexing Investable (III) Universe designated as Europe ex-UK developed market, large- or mid-capitalization securities with the following securities included: those denominated in euros (EUR) and those that are larger and more liquid. Further, the following securities are excluded from the Index: those from the financial sector, those deemed illiquid based on bid/ask spread or volume turnover, those with a drawdown greater than 40%, those involved in controversial weapons or private prisons, those generating more than 5% revenue from: tobacco production and related products or services; recreational cannabis production; oil and gas production and related products/services; extraction of thermal coal, shale energy, arctic oil and gas, or oil sands; and regular weapons, those that are not compliant with the United Nations' Global Compact, and finally those with a Controversy Score of 4 or 5 from Sustainalytics. For full details on the III Universe, see Invesco Indexing Investable Universe Methodology at www.InvescoIndexing.com

**Meaningfully higher yields, quality**
Invesco Eurozone Focused Quality + Yield Strategy: Yield and Quality

**Dividend Yield**
■ 50 Name ■ 40 Name
■ 30 Name ■ Benchmark**




**Quality**
■ 50 Name ■ 40 Name
■ 30 Name ■ Benchmark**




Source: Invesco Indexing. Average from 30 June 2012 to 31 December 2020. The Invesco Eurozone Focused Quality + Yield Strategy incepted on March 1, 2021 and the Benchmark has not incepted yet; all data prior to launch dates are back-tested. The Comparative Benchmark is a market cap weighted strategy that includes all securities in the index universe after exclusionary criteria have been applied. Back-tested performance (i.e. calculations of how the strategy might have performed over that time period had the strategy existed) is subject to inherent limitations because it reflects retroactive application of a methodology and selection of constituents with the benefit of hindsight. **Past performance, actual or back-tested, is no guarantee of future performance.**

The product of this four-month engagement—the Invesco Eurozone Focused Quality + Yield Strategy—has been directly licensed to the bank and is now available to other Invesco Indexing clients. The bank will manage its portfolio in-house, guided by the Index. For clients who prefer an outside manager, we license our indexes to Invesco Capital Management, which in turn delivers an invested index-based portfolio to their clients.

## Learn more

For more on the Invesco Eurozone Focused Quality + Yield Index, or to learn about how our consultative approach to customized index design can help solve your investment challenges, please contact a member of the Index Client Engagement team at IndexSupport@invesco.com.

## Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

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