

Asset Management Technology

Excels to SQL database



STP - API - Webservice - FTP

Cost Savings

Open Finance

Regulations

User Experience

People risk

Consolidation of AM Business

Big Traditional Players



































Asset Managers Finland - Example

Nordea Front Capital

OP S-Pankki

Evli Capman

eQ Finlandia

Elite Alfred Berg Mandatum

United Bankers Index Helsinki

Taaleri LähiTapiola

Aktia SEB

Wealth Management

Portfolio Managers – Asset Management Companies

Private Bankers

Private Equity Companies

Fund Management Companies

Alternative Investments

(Institutional Investors)

AM Systems Landscape

KYC Portal WEB and Mobile Regulator Market data Supervisor API – Web services Core System FTP- File FTP- File Portfolio Tax Authorities Custody system: Fund **Statistics** Portfolios Administration: NAV Analytics Share holders Client Reporting Optimization Performance Trading Attribution CRM - Customers - Onboarding

AML, Sanctions,

Users of Technologies

Backoffice

Portfolio Manager

Sales

Compliance

Risk Management

Top Management

Automation

- Back-office automation
- Consumer lending platforms
- Investment evaluations
- •Alternative investment platforms
- •AML, Sanction Screening

- •Bond investment platforms
- Loan origination software
- •Bespoke reporting and analytics
- •Fund management
- Workflow automation

GDPR

1.What is GDPR?

- 1. The GDPR is a **European Union regulation** that focuses on **information privacy** within the EU and the European Economic Area (EEA).
- 2. It replaced the earlier **Data Protection Directive** and became effective on **May 25, 2018**.
- 3. The GDPR aims to enhance individuals' control over their personal information and simplify regulations for international business.

2. Key Goals of GDPR:

- **1. Empower Individuals**: The GDPR gives people more control over their personal data.
- 2. Privacy by Default: Companies must ensure safe data collection, processing, and storage.

Regulation Behind

MiFid II and MiFir regulations purpose is to strengthen investor protection and improve the functioning of financial markets making them more efficient, resilient and transparent

Conduct of business and organisational requirements for investment firms

Authorisation requirements for regulated markets

Regulatory reporting to avoid market abuse

Trade transparency obligation for shares

Rules on the admission of financial instruments to trading

*Markets in Financial Instruments Directive



MiFid Technology Needs

CRM (Customer Relation Management)

KYC know your customer

Risk assessment

Reporting – Cost and charges

Trade reporting

High-frequency-trading -

Access to trading venues – Stocks, Funds, Bonds,,,,

Robo Advise

Why

- Digital user experience
- More efficient cost cutting
- Neutral service unified quality

Who

- Banks
- Private banks
- Fund companies
- Embedded Finance companies

Robo Advise

Onboarding

- Online Questionnaire and Assessment
- Asset allocation and portfolio recommendation (Stocks, Bonds, ETFs and Funds)

Recommendations

- Portfolio view and performance reporting
- Risk basedre rebalancing of allocation
- Algorithmic based rebalancing of portfolio
- Limits

Automation

- Fully automatic
 Investment
- Self-learning algorithms
- Automatic allocations
- Limit monitoring
- Reporting
- Alerting



Trading

Algorithmic Trading – High Flequency Trading

Transformation from human to digital trading enables computerized trading

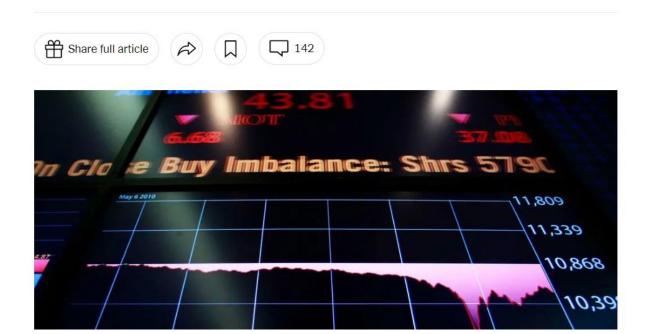
Algorithmic trading is a process for executing orders utilizing automated and preprogrammed trading instructions to account for variables such as price, timing and volume

- Order execution
- Arbitrage
- Trend trading
- High frequency trading

Artificial Intelligence, Neural networks

Example: Hedge Funds using

Trader Arrested in Manipulation That Contributed to 2010 'Flash Crash'



Why the Stock Market Lost \$1 Trillion for 36 Minutes (youtube.com)

The 2010 Flash Crash explained | FT Markets (youtube.com)

Algorithmic Trading

Why

- Profit making
- Cost cutting

Who

- Hedge Funds
- Brokers
- Institutional investors

Portfolio Managment

Portfolio analytics

- Bloomberg
- Reuters
- Infront

Portfolio optimization and risk management

- MSCI Barra
- Paliside Excel

Investment Fund Regulations

Regulart Funds: The directive on <u>undertakings for collective investment in</u> <u>transferable securities (UCITS)</u>

Alternative Funds: The <u>alternative investment fund managers (AIFM)</u> directive

The <u>European venture capital funds (EuVECA)</u> regulation

Investment Fund Regulations

Reporting

- Regulator
- Custodian
- Investors

Risk

Limits rules

Net Asset Value

- Holdings
- Valuation of assets

Investment Fund Regulations KIID

Key investor information document (KIID)

- •all types of investment funds
- •insurance-based investments
- retail structured products
- private pensions



Content

Investment Objectives and policy

Risk and return profile

Cost and charges

Past performance

Other information

ESG information

Production

Standard and harmonized layout

Plain language

Distribution

Timely production to relulator and public

- Supervisory agency
- Investors
- Other counterparties

Standardized production process

Key Investor Information

This document provides you with key investor information about this fund. It is not marketing material. The information is required by law to help you understand the nature and the risks of investing in this fund. You are advised to read it so you can make an informed decision about whether to invest.

Global Opportunities Access - Global Equities, a sub-fund of Global Opportunities Access, USD-hedged Facc (ISIN: LU1189806620)

This sub-fund is managed by UBS Fund Management (Luxembourg) S.A. (the "Management Company"), which is a member of the UBS Group.

Objectives and investment policy

The investment objective of the actively managed sub-fund is the substantial appreciation of assets in the long term by seeking direct or indirect exposure to primarily global equities. The reference currency of the sub-fund is EUR.

This actively managed sub-fund uses the Reference Benchmark Index, a composite of 90% MSCI World EUR-hedged and 10% MSCI Emerging Markets in Euro, as a reference for portfolio construction, performance comparisons and risk management. For hedged share classes of the sub-fund, the corresponding hedged Reference Benchmark Index is used, if available. Whilst part of the portfolio may be invested in the same instruments and with the same weights as the Reference Benchmark Index, the Portfolio Manager may use their discretion to invest in companies not included in the Reference Benchmark Index in order to take advantage of specific investment opportunities. Therefore, the performance of the sub-fund may diverge strongly from the Reference Benchmark Index during periods of higher market volatility.

In order to implement the investment strategy, the Portfolio Manager may invest in different types of investment instruments such as single equities, deposits, shares or units of UCITS or other UCI funds, UCITS eligible certificates, and

derivative instruments. The sub-fund may gain strategic positions in global equities, and will tactically develop a leveraged exposure (both long and short) to global equities markets by the use of derivatives.

For liquidity purposes, the sub-fund may hold money market instruments, cash or cash equivalents.

The sub-fund is exclusively available for discretionary mandates

Investors may demand to redeem their units every normal bank business day in Luxembourg.

The sub-fund may enter into securities lending transactions.

The income in respect of an accumulation share class is not distributed but is retained in the sub-fund.

This share class is currency-hedged meaning that, using derivatives, the base currency of the sub-fund is to a large extent hedged into the share class' currency.

Recommendation: This sub-fund may not be appropriate for investors who plan to withdraw their money within 5

Risk and reward profile

| | Lower risk | | | | Higher risk | | |
|---------|-------------------------|---|---|--------------------------|-------------|---|---|
| <u></u> | Typically lower rewards | | | Typically higher rewards | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

More about this rating

- The risk category is based on return volatility over the last five years. The method used for this estimation depends on the type of fund.
- Historical data may not be a reliable indication for the future.
- The risk category shown is not guaranteed and may vary over
- The lowest category does not mean 'risk free'.

Why is this fund in Category 6?

The fund is exposed mainly to equities, via indirect investments. The risk category is therefore driven by equity market fluctuations.

Further material risks:

- The use of derivatives to generate leverage could impact fund
- A portion of the fund may be exposed to less liquid instruments where bid-ask spreads and the price impact of trading might increase significantly under adverse market
- No Capital Guarantee exists for this product so investors can lose their entire investment.
- Use of over-the-counter derivatives exposes the fund to potential counterparty default risk

Charges

The charges you pay are used to pay the costs of running the sub-fund, including the costs of marketing and distributing it. These charges reduce the potential growth of your investment.

One-off charges taken before or after you invest

| Entry charge | 3.00% |
|--------------------------------------------------------------------------------------------|-------|
| Exit charge | 0.00% |
| Conversion charge | 3.00% |
| This is the maximum that might be take before it is invested / before the proceed paid out | |

Charges taken from the fund over a year

| Ongoing charges | 0.61% |
|-----------------|-------|
| | |

Charges taken from the fund under certain specific

Performance fee

The **entry charge** shown is a maximum figure. In some cases you might pay less - you can find this out from your financial

The ongoing charges figure is based on the last twelve months prior to the preparation of this document. This figure may vary from year to year. It generally excludes:

 Securities lending related costs and Portfolio transaction costs, except in the case of an entry/exit charge paid by the fund when buying or selling units in another collective investment undertaking

For more information, please see the charges section of the Fund's prospectus, which is available at

www.ubs.com/fml-gwm-funds.

Past performance



Emerging Markets (not hedged) (MSDEEEMN Index) - Benchmark

Performance in the past is not a reliable indicator of future results

The chart shows the class's investment returns calculated as percentage year-end over year-end change of the class net asset value. In general any past performance takes account of all ongoing charges, but not the entry charge. If the sub-fund is managed against a benchmark, its return is also shown. The sub-fund was launched in 2014. The Class was launched in 2015

The past performance is calculated in USD.

Practical information

UBS Europe SE, Luxembourg Branch

Further Information

Information about Global Opportunities Access and its available share classes, as well as the full prospectus and the latest annual and semi-annual reports, can be obtained in English and free of charge from the fund management company, the central administrator, the custodian bank, the fund's distributors or online at

www.ubs.com/lu/en/asset-management. Other documents are also available

Details, including how to handle complaints, the strategy for exercising the fund's voting rights, the guidelines for handling conflicts of interest, the best execution policy and the current remuneration policy, including a description of the calculation method for remuneration and benefits as well as the responsibilities of the remuneration committee, can be found

at www.ubs.com/lu/en/asset-management. A printed copy is available free of charge on request. Swiss representative: UBS Fund Management (Switzerland)

Paying agent: UBS Switzerland AG, Bahnhofstrasse 45. CH-8001 Zurich and its branches in Switzerland information and articles of association, as well as the annual

AG, Aeschenvorstadt 1, CH-4051 Basel. To obtain documents: The prospectus, key investor and semi-annual reports, can be obtained in English and free of charge from the representative and at www.ubs.com/fonds. The currency of the share class is USD. The price of shares is published on each business day and is available online at www.fundsquare.net.

Tax Legislation

The fund is subject to the tax laws and regulations of Luxembourg. Depending on your own country of residence, this might have an impact on your investment. For further details you should consult a tax adviser.

The Management Company may be held liable solely on the hasis of any statement contained in this document that is misleading, inaccurate or inconsistent with the relevant parts of the prospectus of the Fund

Source UBS Fund Management WEB

Open Finance

European Union Initative (Regulation expected 2024/2025)

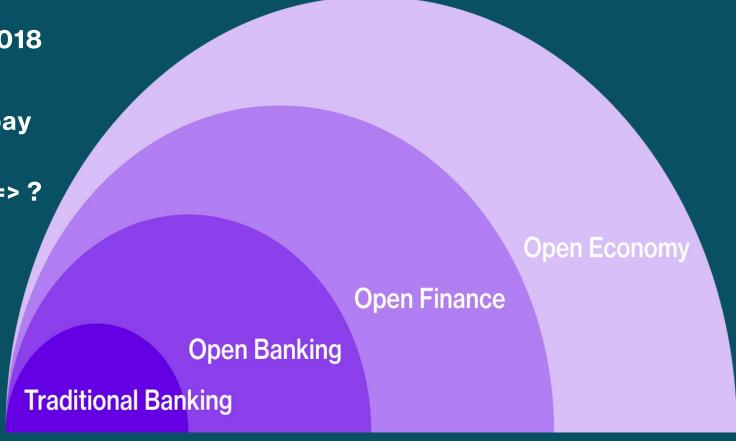
Make financial data more accessible to customers in a wider range of services and platforms

- Investing
- Pensions
- Savings
- Accounting....

Financial Institutions must provide APIs to access data

Open Finance

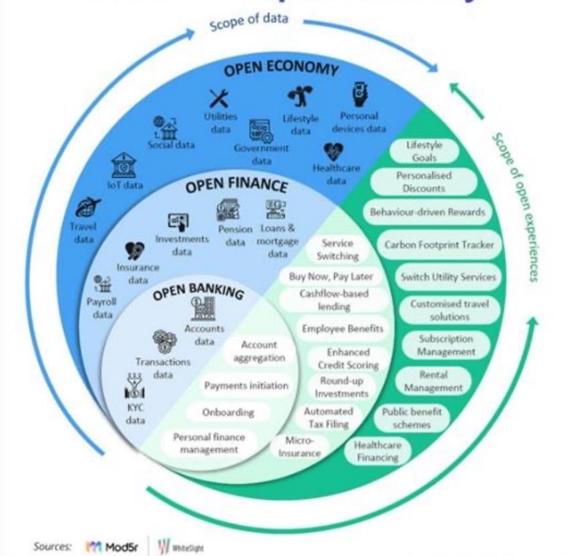
- PSD2 Open Banking (2015) 2018
- FinTechs payments
- Enbedded Finance buy now pay later (insurance etc.)
- PSD3 (PSD2 2.0) 2022 (2023)=> ?
- Open Finance
- From UI to UX



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From Open Banking to Open Finance and to the Open Economy



Fintechs / AM





% Crosskey



















Bloomberg

Example Software - Programming Tools

Excel

MATLAB

R

Julia

Python

Nordic Fintech Summit

