Lesson 46: Wealth Management Systems
Module 4: Traditional Digital Finance

BSc Digital Finance

Platforms, Hybrid Models, and Technology

Learning Objectives

By the end of this lesson, you will be able to:

1. Understand wealth management technology stack
2. Compare private banking vs. mass affluent platforms
3. Explain hybrid human-digital advisory models
4. Analyze portfolio management systems
5. Evaluate client onboarding technologies

[Wealth Management Stack]

Technology transforming how wealth is managed

[Chart: Wealth Management Market Segments by AUM and Client Count]

UHNW/Private Banking

- $30M+ assets
- Dedicated relationship manager
- Bespoke solutions

HNW/Affluent

- $1M-$30M assets
- Team-based service
- Tiered offerings

Mass Affluent/Retail

- $100K-$1M assets
- Digital-first approach
- Standardized products

Global wealth: $463 trillion AUM (2023), growing 5% annually

Wealth Management Technology Stack

Front Office Systems

- Client Relationship Management (CRM)
- Financial planning tools
- Client portal/mobile apps
- Advisor workstation
- Document management

Middle Office Systems

- Portfolio management
- Performance measurement
- Risk analytics
- Compliance monitoring

[Technology Stack Diagram]
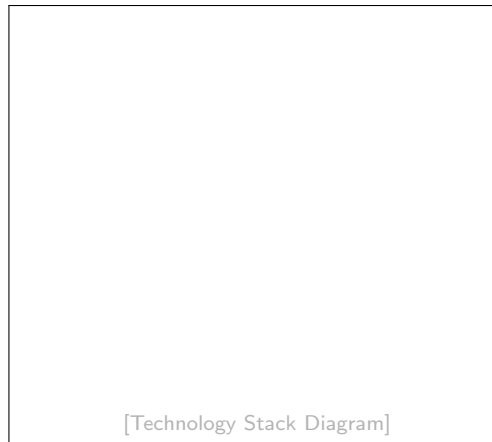
Integrated platforms vs. best-of-breed component approach

Key Vendor Landscape

Vendor	Focus
SS&C Advent	Multi-asset PMS
BlackRock Aladdin	Risk + Portfolio
Charles River	IBOR platform
SimCorp	Buy-side suite
Temenos	Private banking

Core Functions:

- Position keeping
- Trade order management
- NAV calculation
- Client reporting

[PMS Data Flow Diagram]

IBOR (Investment Book of Record) becoming central to modern architecture

[Process Flow: Digital Onboarding Journey]

Step 1: Identity
- eKYC verification
- Document upload
- Biometric capture

Step 2: Suitability
- Risk profiling
- Investment goals
- Time horizon

Step 3: Account
- Account opening
- Agreement signing
- Funding setup

Step 4: Portfolio
- IPS creation
- Asset allocation
- Investment mandate

Digital onboarding reduces time from weeks to hours

Pure Digital (Robo)

+ Low cost (0.25-0.50%)
+ 24/7 availability
+ Consistent advice
- Limited personalization
- No emotional support

Hybrid Model

- Digital for routine tasks
- Human for complex decisions
- Video calls on demand
- Scalable yet personal

[Hybrid Model Economics Chart]

Vanguard Personal Advisor Services: hybrid at 0.30% with $200B+ AUM

Planning Software Features
- Goal-based planning
- Monte Carlo simulation
- Tax optimization
- Estate planning integration
- Insurance analysis
- Retirement projections

Leading Platforms:
- eMoney Advisor
- MoneyGuidePro
- RightCapital
- Orion Planning

[Monte Carlo Simulation Output]

Monte Carlo: 1000+ scenarios to estimate probability of meeting goals

Return Calculation Methods
Time-Weighted Return (TWR):

$$R_{TWR} = \prod_{t=1}^{n}(1 + R_t) - 1$$

- Removes cash flow impact
- Standard for manager comparison

Money-Weighted Return (MWR/IRR):
- Includes timing of flows
- Reflects client experience

[Performance Attribution Chart]

GIPS (Global Investment Performance Standards) ensure comparability

[Sample Client Dashboard: Portfolio Summary, Asset Allocation, Performance]

Standard Reports

- Monthly statements
- Quarterly reviews
- Annual tax documents

Interactive Features

- Real-time valuations
- Drill-down analytics
- Document vault

Delivery Channels

- Client portal
- Mobile app
- API access

Self-service reporting reduces advisor burden by 30-40%

Model Portfolio Approach

- Centralized investment decisions
- Consistent client experience
- Scalable implementation
- Tax-efficient transitions

Rebalancing Strategies:

1. Calendar-based (quarterly)
2. Threshold-based (5% drift)
3. Tax-aware opportunistic
4. Cash flow rebalancing

[Rebalancing Decision Tree]

Direct indexing: customized model portfolios at individual security level

How Direct Indexing Works

- Own individual securities (not fund)
- Track index performance
- Harvest tax losses daily
- Apply ESG/custom screens

Tax Alpha Potential:

$$\text{After-Tax Alpha} = T \times L \times r$$

Where:

- T = tax rate (e.g., 37%)
- L = harvested losses
- r = reinvestment return

[Tax Alpha vs. Traditional Indexing]

Parametric, Aperio, Wealthfront pioneering direct indexing technology

Key Regulatory Requirements

- MiFID II (EU) - suitability, costs
- Reg BI (US) - best interest standard
- AML/KYC - client identification
- Cross-border taxation (FATCA, CRS)

Technology Solutions:

- Suitability testing engines
- Cost disclosure automation
- Transaction monitoring
- Regulatory reporting

[Compliance Workflow Automation]

MiFID II requires detailed cost disclosure and suitability documentation

Single Family Office (SFO) Needs

- Consolidated reporting
- Private equity/alternatives
- Multi-entity structures
- Bill pay and accounting
- Estate/trust management

Specialized Platforms:

- Addepar (aggregation)
- Archway Technology
- Eton Solutions
- Masttro

[Family Office Technology Ecosystem]

10,000+ family offices globally managing $6 trillion in assets

Case Study: UBS Wealth Management Transformation

UBS Digital Strategy

- $4 trillion AUM globally
- "One UBS" technology platform
- Hybrid advisory at scale
- AI-powered insights

Key Initiatives:

1. UBS Advice Advantage platform
2. Digital onboarding globally
3. Portfolio analytics tools
4. Client mobile experience

[UBS Digital Platform Overview]

UBS spent $3.5B annually on technology (2023)

Future of Wealth Technology

Personalization
- AI-driven insights
- Behavioral finance nudges
- Hyper-personalized UX
- Next-best-action

Integration
- Embedded wealth services
- Banking + investment unified
- Alternative data sources
- Ecosystem partnerships

Democratization
- Lower minimums
- Fractional everything
- Financial wellness focus
- Intergenerational transfer

[Wealth Tech Evolution Timeline]

$84 trillion wealth transfer to millennials by 2045

Key Takeaways

Technology Components

1. PMS/IBOR for portfolio operations
2. Financial planning software
3. Digital onboarding/KYC
4. Performance attribution
5. Client reporting platforms

Strategic Themes

1. Hybrid human-digital models win
2. Direct indexing disrupts funds
3. Tax optimization adds alpha
4. Regulation drives technology
5. Personalization differentiates

[Wealth Management Ecosystem Summary]

Next lesson: Financial Data Vendors (Bloomberg, LSEG, Alternative Data)

Questions?

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