The Future Development of the Financial Sector: Technology, Artificial Intelligence, and Biological Data

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Fragmentation into geoeconomic macro-regions, each forming its own payment and financial architecture

The US – SWIFT, card systems (Visa, Mastercard), **cloud infrastructure** (AWS, Microsoft, Google). The US aims to maintain the dollar as the global reserve currency.

Europe – Digital Strategy (FiDA, AI, MiCA). Dependency on US cloud services and card schemes. Projects: EPI, the digital euro. Europe and the US function as one block but represent two competing economic centres.

China – actively developing e-CNY and national blockchain networks (BSN), implementing economic neocolonialism through the BRI (Belt and Road Initiative). Forming an alternative to SWIFT – CIPS.

BRICS Pay – creating a cross-border payment system for settlements in national currencies and mutually harmonised CBDCs. There is a possibility of a transition to a multi-currency world with regional reserve currencies.

Asia (Hong Kong, Singapore, India) – leaders in CBDC testing and implementation for both **B2B** and **B2C transactions**. Used for cross-border payments, trade financing, and money transfers.

Technological changes are reshaping financial infrastructure and logic

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Technological Impacts on Finance

Artificial Intelligence (AI)

Lending: behavioural prediction models replace traditional credit history

Super apps acting as consultants: personalised investment strategies

RegTech: transaction monitoring and automation of compliance regulations

Smart Contracts and Blockchain

Mortgages without banks: loans via decentralised platforms with DAO funding

Real estate and asset tokenisation: partial investments with immediate mortgage financing

Digital bonds are issued via smart contracts without intermediaries

Technological Impacts on Finance

Embedded Finance

Financial services are 'stitched' into platforms: from e-commerce to car insurance in ride-sharing apps

Credit, when applying for a subscription; embedded wealth in online games; immediate salary access

Real-time insurance: activated via API when an event (a journey, trip, flight) occurs

Open Finance

Third-party access to user financial data (with consent)

New business models: financial services marketplaces and personalised product streams

Asset consolidation from different FIs in a single management interface

Can shift the financial market architecture – from FI-centric to user-centric

Virtual Economy Today

- Transactions with digital assets are taking place in the Metaverse – > USD 2 billion spent on virtual land in 2022
- The **metaverse market** is projected to grow from **~USD 227 billion in 2024** to **~USD 316 billion in 2025**
- Metaverse real estate will grow by 31% by 2030, and the overall economy will reach USD 5 trillion
- 30% of purchasers are institutional investors or brands (> 200 per year)
- Rental prices for virtual offices can exceed USD 5000 per month
- The government sector is represented

Source: Medium, CliffordChange, theGamer, Researchandmarkets, McKinsey, Globenewswire, Patentpc, researchgate, wired, veelive, fastcompany

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Financial systems of the future are being developed with Gen Z and Gen Alpha in mind
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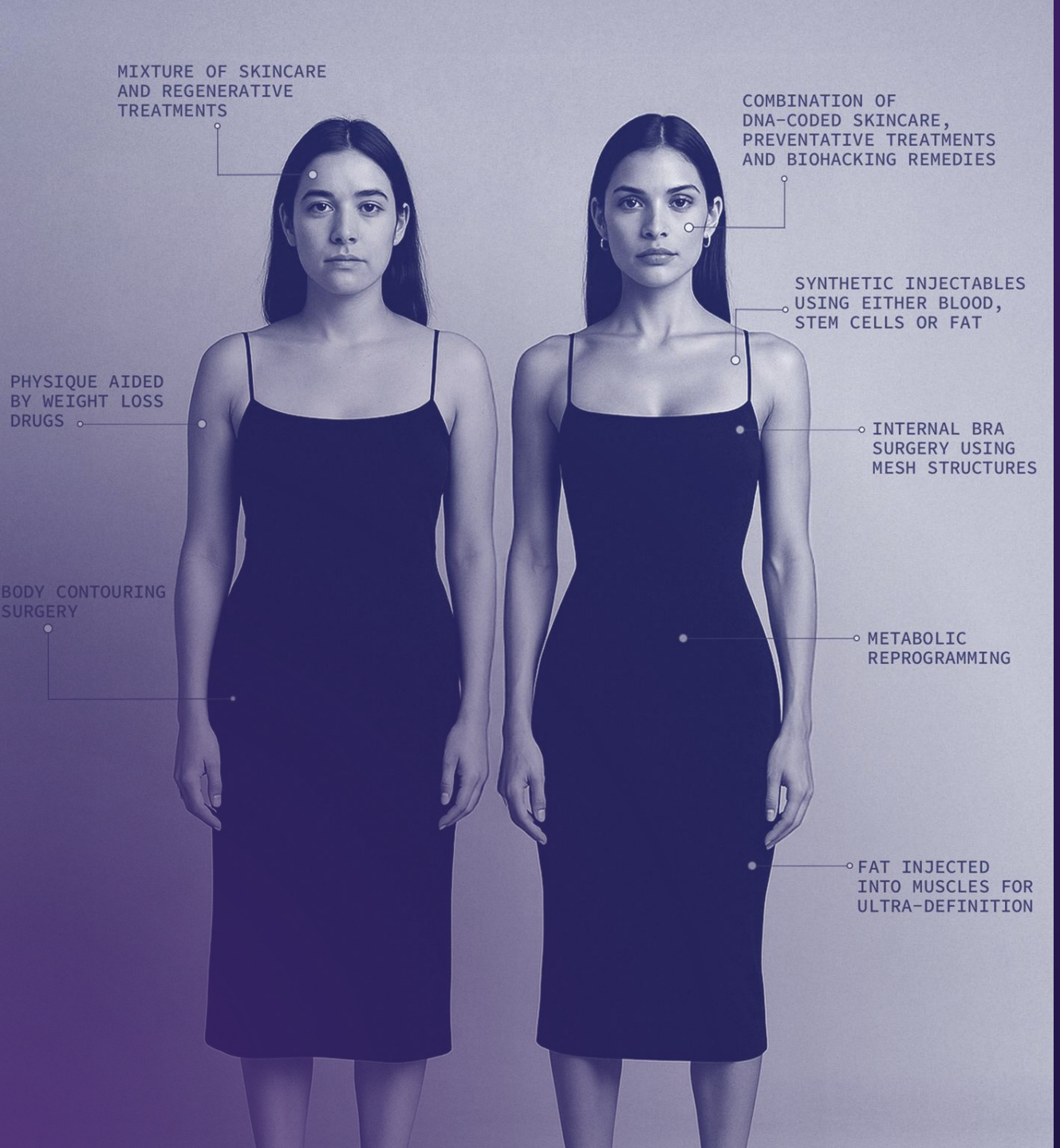
Financial Behaviour Across Generations

Generation	Birth Year	Characteristics	Financial Behaviour and Needs
 **Millennials**	~1981–1996	Digitally adapted, shaped by multiple crises	• Combine traditional and digital financial tools • Oriented toward asset accumulation (housing, car) • Create long-term savings
 **Gen Z**	~1997–2012	Digital natives, sceptical of institutions and banks, raised on social networks and platforms	• Preference for platforms – UX first • "Life as a Service" • Financial planning = algorithms and investment bots, microfinancing, P2P loans, loyalty tokens • Could become the wealthiest generation historically • Low savings rate, high spending
 **Alpha**	~2013+	Growing up with AI, AR, voice assistants, and metaverses	• Perceive services as digital experience • Expect immediate, interactive, **game-based** communication • Consume and learn in digital environments • Possibly the first generation for whom living over **100 years will be the norm**



Longevity and Evolving Financial Cycle

- **Multi-tiered pension:** the transition from a one-time retirement to a flexible, multi-phase model
- **Extension of the investment horizon:** the need for long-term portfolios designed for 70–80 years of life
- **New products:** cognitive risk insurance, biological insurance, financial coverage for gene therapy

Picture: The Future of Appearance | Vogue

Bioengineering and Financial Personalisation

- **Integration of wearable** medical **devices into financial systems**
- **Insurance:** personalised policies based on biological age, activity level, and wearable device data
- **Investments:** personalised savings products based on aging biomarkers
- **Loans:** a credit portfolio where customer risks are assessed, among other things, using cellular ageing and biomarkers
- **BioFinance:** fintech applications synchronised with bio-data, offering financial and longevity strategies

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"Life OS" – The Architecture of the New Economy

Transformation of the financial system

Longevity economy: people will live beyond 100 years, which will require a multi-stage model of work, social, and financial life

Digital and biological integration: the economy will begin to consider biomarkers, genetics, and cognitive traits as assets

New capitalisation: monetisable data, Digi-ID, social attention, intellectual capital (rights, codes), and fragmented property will become assets; reputation = access to money

Web3 and metaverses: emerging as spaces for new financial services: decentralised insurance, metaverse loans, and tokenised identity

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