

EDUCATIONAL CASE STUDY 05 - LIBRARY CROSSWALK - MAY 2026

Fiserv Valuation

Library Crosswalk - PUBLIC

*This crosswalk maps every analytical move in the Fiserv case study back to the chapter in the Practitioner Library where the underlying framework is developed in full. It is a short, free-standing companion document. The Fiserv case is the software / services working example of the **HALO Trade thesis** - Heavy Assets, Low Obsolescence - applied to a high-recurring-revenue payments-and-financial-technology infrastructure business.*

Lens	Method	Library chapter
DCF	Organic-growth + EBITDA-margin path	PE Guide Ch 19 + First Principles Ch 13
Comps	Segment-specific multiple selection	PE Guide Ch 17
SOTP	Cross-segment integration credit	PE Guide Ch 20
HALO	Switching-cost-as-moat	BBG/FP Volume - HALO Trade chapter

DISCLOSURE - Phil Baratelli, principal of the Baratelli Institute, owns shares of Fiserv Inc. (FI) and may buy or sell at any time without notice. He is not an employee, officer, or director of Fiserv. This is an educational case study, not investment advice. Built from public SEC filings.

How to read this crosswalk

The Fiserv Educational Case Study is built from the Practitioner Library. Each analytical move in the memo and the model connects back to a specific chapter in one of six library volumes:

Abbreviation	Title	Audience
FP	First Principles	Cross-discipline foundational frameworks
PE	PE Guide	Private equity, valuation, deal structuring
CFO	CFO Controllers' Guide	Operating finance, controls, reporting
FO	Founder / Operator Guide	Operating leadership, strategic decision-making
EPD	Engineering / Product / Design	Product, R&D, technology decisions (cross-ref only)
BBG/FP	Bloomberg / FactSet / Financial Planning	Markets, capital allocation, HALO Trade framework

Each section below cites the Fiserv case-study move (the question or step), the library chapter that supplies the methodology, and the specific document or page in the source filings where the underlying data lives. The Fiserv case study is intentionally structured around the **HALO Trade thesis - software / services variant**, where the customer-integration footprint (in this case, ~10,000 bank-core integrations on DNA / Premier / Signature) is the analog of the physical-asset base that the CLF case worked through. The framework is the same; the asset class differs.

The case-study pair (CLF + FI) is intentional. CLF worked the HALO Trade framework on heavy physical assets - mines, mills, HBI plants. Fiserv works the same framework on a different kind of asset - bank-integration footprint with multi-year switching cost. The framework travels; the asset class is the variable. That is the structure of the Practitioner Library: chapters develop frameworks in full, and case studies test the frameworks on real situations where the answer is not obvious.

Core crosswalk: DCF / Comps / SOTP / Risk

Case study move	Library reference	Source data
Executive summary: price -> through-cycle earning power -> multiple -> margin of safety	FP Ch 7 + BBG/FP HALO chapter	10-K + 10-Q + market data
Recurring-revenue services through-cycle EBITDA construction	FP Ch 7 + PE Ch 8	10-K Adj. EBITDA recon
Balance-sheet read: net debt + intangibles + equity bridge	CFO Ch 4 + Ch 11	10-Q balance sheet
FCF construction: EBITDA - capex - cash tax - WC change	PE Ch 8 + CFO Ch 11	10-K cash flow stmt
WACC build: Rf + Beta x ERP; debt cost; weighted	PE Ch 19 + FP Ch 13	Yahoo + Damodaran
Beta selection for services / recurring-revenue names (5Y monthly)	FP Ch 13	Yahoo Finance
Sensitivity grid: WACC x terminal g	PE Ch 19	Model XLSX 5_DCF
Trading-comp peer selection (payments + fintech)	PE Ch 17	FIS / GPN / ADP / SQ / TOST
Segment-specific multiple selection at the SOTP layer	PE Ch 17 + Ch 20	Memo Section 4
SOTP: Merchant + Financial Solutions + Payments&Network + Corp	PE Ch 20	10-K segment footnote
Integration credit construction (cross-sell synergy)	BBG/FP HALO chapter + PE Ch 20	Methodology overlay
Probability weighting of bear / base / bull	FP Ch 15	Model XLSX 8_Summary
Catalyst clock: events that confirm / disconfirm thesis	BBG/FP HALO chapter + FP Ch 16	Memo Section 12
Lines in the sand: pre-committed invalidators	FP Ch 16 + CFO Ch 17	Memo Section 13
Risk inventory with mechanism + filing reference	CFO Ch 17 + FP Ch 16	10-K Item 1A
Capital structure: post-FDC leverage cadence	CFO Ch 13	10-Q debt schedule
First Data merger + integration accounting + intangibles amort	PE Ch 4 + CFO Ch 13	8-K Jul 2019 close + 10-K

Extended crosswalk: SBC, LBO, NOL, HALO, Bear Stress

The case study includes five deep-dive analytical sections beyond the core DCF / Comps / SOTP / Risk frame: (1) SBC vs Dilution bridge for services-recurring-revenue, (2) Bear Stress Test on Clover deceleration and core-banking risk, (3) Take-Private / LBO feasibility, (4) NOL Asset Analysis with TCJA 80% cap and Sec 382 mechanics on acquired First Data carryforwards, and (5) explicit HALO Trade framework application in the software / services variant. Each move below maps back to the library chapter that supplies the framework.

Case study move (extended sections)	Library reference	Source data
SBC P&L expense vs share-count dilution (services profile)	FP Ch 11 + CFO Ch 9	10-K equity footnote
Treasury-stock method on diluted share count	CFO Ch 9	10-K diluted EPS footnote
Buyback-vs-SBC dilution offset analysis	CFO Ch 13	10-K Item 5 + cash flow
Clover GPV deceleration stress scenario	FP Ch 16 + PE Ch 14	Memo Section 10
Stripe / Toast competitive-pressure mechanism mapping	FO Ch 12 + FP Ch 16	Memo Section 10
Core-banking displacement long-tail risk	BBG/FP HALO chapter + FP Ch 16	Memo Section 10
Take-private offer construction (premium + diluted shares)	PE Guide Model 05	Model XLSX 10_LBO
Sources & uses cap stack at 6.0-6.5x through-cycle EBITDA	PE Guide Model 05	Model XLSX 10_LBO
TLB / SSN / SUN tranche pricing for IG-rated services issuer	PE Guide Model 05	Credit-market reference
Sponsor IRR via exit multiple x EBITDA matrix	PE Guide Model 05	Model XLSX 10_LBO sensitivity
LBO as downside-floor sanity check on public valuation	FP Ch 14	Memo Section 8
NOL inventory build (FI standalone + acquired First Data)	PE Ch 4B	10-K NOTE Income Taxes
TCJA 80% utilization cap on post-2017 federal NOLs	PE Ch 4B + CFO Ch 11	IRC Sec 172
Sec 382 trigger on First Data acquisition (Jul 2019)	PE Ch 4B	IRC Sec 382
Sec 382 annual limitation: equity x LT tax-exempt rate	PE Ch 4B	IRS-published rate
PV of NOL shield with TCJA cap + Sec 382 modeled	FP Ch 13 + PE Ch 4B	Model XLSX 11_NOL
HALO Trade framework: software / services variant criteria	BBG/FP HALO chapter	Memo Section 14
Switching-cost-as-moat (substitute for replacement-value floor)	BBG/FP HALO chapter + FP Ch 7	Industry switching-cost data
Integration-footprint replication-time argument (Section 15)	BBG/FP HALO chapter + FP Ch 8	Memo Section 15
Atoms-equivalent in services: bank-integration footprint	BBG/FP HALO chapter (our extension)	Memo Section 15 - our framework

Public-compounder vs take-private strategic-path analysis

FO Ch 12 + PE Ch 17

Memo Section 8

The highlight bands above group the rows by analytical section: blue = SBC / Dilution; cream = Bear Stress; tan = LBO / Take-Private; cream = NOL / Sec 382; gold = HALO Trade. Each row points to where the framework is developed in full and to the specific source-document area that grounds the data.

The HALO Trade framework applied to Fiserv

*The Fiserv case study is intentionally structured as the software / services working example of the HALO Trade thesis - **Heavy Assets, Low Obsolescence**. The framework, developed in the BBG/FP volume, identifies businesses anchored in assets that the market cannot replicate quickly (capital intensity + permitting + regulatory + technology lock-in) but that are not at risk of being made obsolete by technology over a 25-year horizon. For software / services businesses like Fiserv, the "asset" is the customer-integration footprint plus the switching cost associated with displacing it - the analog to the physical-asset replacement cost in the CLF case.*

HALO criterion	Library reference	How Fiserv case study exercises it
Asset that cannot be replicated quickly	BBG/FP HALO Section 1	Memo Section 14: ~10,000 bank-core integrations; 15-20yr replication
Capital / time intensity of replication	BBG/FP HALO Section 2	Memo Section 15: Greenfield core-banking footprint clock = decades
Technology obsolescence risk (low)	BBG/FP HALO Section 3	Banks still need core processors in 2050; cloud-native is re-platform
Regulatory / certification moat	BBG/FP HALO Section 4	FFIEC + PCI + SOC + NACHA certifications; bank-regulator audits
End-market visibility	BBG/FP HALO Section 5	Payments volume secular growth; FI count stable in aggregate
Customer concentration check (favorable)	BBG/FP HALO Section 6	Long-tail (~10,000 FIs) rather than top-heavy
Technology-cycle caveat (the HALO discount)	BBG/FP HALO Section 7	Cloud-native challengers on 10-20yr displacement clock; Finxact hedge
Capital-allocation discipline	BBG/FP HALO Section 8 + CFO Ch 13	Post-FDC deleveraging complete; capital return + bolt-ons
Forward-looking strategic-asset framing	BBG/FP HALO Section 9 + FP Ch 18	Memo Section 14: software/services HALO variant

Why Fiserv is the natural HALO Trade software / services teaching example

Fiserv is not the only software / services HALO Trade name. Other candidates the framework points at include payroll incumbents (ADP, Paychex), exchange-and-clearing infrastructure (ICE, CME, Nasdaq), credit-bureau data infrastructure (TransUnion, Equifax, Experian), and certain enterprise-software incumbents with deep customer-integration footprints (SAP for ERP, Oracle for database). What makes Fiserv the cleanest *teaching* example is the combination of (a) a publicly traded equity with full SEC disclosure, (b) a clearly identifiable customer footprint (~10,000 FIs in Financial Solutions plus enterprise + SMB on the Merchant side), (c) a multi-decade switching-cost moat that is empirically observable in customer-retention disclosure, and (d) a current trading range that creates a teachable gap between visible-Clover concern and invisible-core-banking moat.

Source documents

All financial figures in the Fiserv Educational Case Study will trace to one of the source documents below. The current shell is built with [VERIFY FROM 10-K] markers pending Phil's filing upload; once uploaded, the follow-up data-refresh pass will populate the markers with sourced figures and produce a backfilled deliverable comparable to the CLF case (which followed the same methodology).

Abbreviation	Document	Issuer	Date
10-K	Form 10-K for fiscal year ended December 31, 2025	Fiserv Inc.	Pending upload
10-Q	Form 10-Q for quarterly period ended March 31, 2026	Fiserv Inc.	Pending upload
SUP	Most-recent earnings supplement / investor day	Fiserv Inc.	Pending upload
8-K	Acquisition 8-Ks: First Data (Jan/Jul 2019), Finxact (2022), bolt-ons	Fiserv Inc.	Event-driven
Mkt	Stock price, 52-wk range, beta, peer EV/EBITDA	Yahoo Finance / CapIQ	Refresh at data-load
WACC	Rf (10-yr UST) / ERP (Damodaran) / FI beta	Public market data	Refresh at data-load

How to use this crosswalk

Start with the case study (memo or model). When a method or framework is invoked - DCF, comps, SOTP, risk register, HALO Trade, etc. - return to this crosswalk to identify the library chapter where that framework is developed in full. The library chapter is where you go for the depth, the worked examples, and the alternative treatments. The case study is where you see the framework applied to one specific real situation.

The library is the work. The case study is the test of the work.

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