Beyond Budgeting: A Systems-Based Approach to Personal Financial Decision-Making

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Speaker Conflicts

Mark Biagi has no conflicts of interest with ineligible companies to disclose.

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Learning Objectives

- Identify common structural gaps in personal finance decision-making among pharmacy professionals.
- Discuss how sequencing of financial decisions influences long-term outcomes.
- Define clear roles for financial accounts such as savings, retirement, and brokerage.
- Describe a systems-based approach to reduce complexity and improve consistency in financial planning.

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What This Session Is (Not)

What this session IS

- A case study following two pharmacists over 15 years
- A look at decisions as connected systems, not isolated questions
- An exploration of why thinking like a pharmacist is not always the same as thinking like an investor or household decision-maker.

What this session is NOT

- A workshop, template, or step-by-step implementation guide
- Individualized financial, tax, or investment advice
- A product or service pitch of any kind
- A claim that there is one correct financial answer for everyone

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A Crowded Financial Starting Lane

- Beginning or advancing in pharmacy can bring several financial decisions into the same moment.

New income

Student debt

New pharmacy professional

Employer benefits

Cash reserves

Family priorities

Housing decisions

Many decisions arrive together.

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Pharmacists Face Compressed Complexity

- A fast income transition can arrive while debt, benefits, and major life decisions are already present.

TRAINING
Educational debt • Limited earnings

→

PRACTICE
Higher income • Benefits • Loans
Housing • Investing

Average debt at graduation → $171,000[1]

Median pharmacist pay → $137,480[2]

High income does not create automatic clarity.

Sources: AACP 2024; BLS Occupational Outlook Handbook.

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Technicians Face Different Constraints

- The financial math may look different, but the need to coordinate priorities remains.

$43,460
Median technician pay[3]

Different income profile

Similar need for decisions

Variable schedules

Benefit eligibility

Advancement costs

Less financial margin

Different numbers. Similar competition.

Source: BLS Occupational Outlook Handbook.

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Q1

A pharmacy professional has student loans, an employer retirement plan, housing goals, and limited monthly surplus. Which issue best reflects the core financial challenge?

A. There are several reasonable uses for the same dollars.
B. Student loans prevent long-term financial progress.
C. Retirement contributions should receive priority over every other goal.
D. Housing decisions should be delayed until debt is gone.

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Meet Jordan & Casey

- Jordan and Casey are both 27 years old and beginning their first full year as hospital pharmacists.

Variable	Jordan	Casey
Position	Hospital pharmacist	Hospital pharmacist
Starting salary	$140,000	$140,000
Expected annual raises	3%	3%
Employer retirement match	100% of first 4%	100% of first 4%
Job stability	Similar	Similar
Geographic market	Same	Same

Jordan & Casey: Personal Finances

Variable	Jordan	Casey
Student loans	$150,000	$150,000
Average interest rate	5.5%	5.5%
Cash savings	$10,000	$10,000
Existing investments	$0	$0
Monthly rent	$1,650	$1,650
Consumer debt	$0	$0
Credit profile	Strong	Strong

Jordan & Casey: Shared Goals

- Both want to…
  - Reduce student debt
  - Begin investing
  - Purchase a home within approximately five years
  - Maintain a comfortable lifestyle
  - Preserve career options
  - Possibly start a family
  - Eventually reach financial independence
- Neither has access to hidden wealth, family assistance, inheritance, or unusually favorable investment returns.

Jordan & Casey: Annual Available Resources

- After…
  - Taxes
  - Required student loan payments
  - Rent
  - Insurance
  - Routine living expenses
  - Baseline retirement contributions
- Each pharmacist has ~$24,000 per year available for additional financial priorities.

Jordan & Casey: Assumptions

- Student loan interest: 5.5%
- Required annual student loan payments: ~$19,500
- Long-term investment return in ordinary years: 7%
- Market decline in Year 7: -20%
- Recovery return in Year 8: 15%
- Cash yield: 3%
- Home purchase price: $310,000
- Mortgage rate: 6.25%
- Mortgage term: 30 years
- Home appreciation: 3% annually
- All amounts are rounded
- Taxes and account-specific rules are simplified
- Both pharmacists receive the same market returns

Decision Point 1: The First Full Year

- Both pharmacists have approximately $24,000 available after their required expenses and minimum obligations.
- What should they do with the money?

Decision Point 1

Jordan

- $12,000 in additional student loan payments
- $10,000 toward a future home purchase
- $2,000 in additional long-term investments
- Contributes enough to the employer retirement plan to receive the full match

Casey

- $6,000 in additional student loan payments
- $9,000 toward cash and a future home purchase
- $9,000 in additional long-term investments
- Contributes enough to the employer retirement plan to receive the full match

End of Year 1

Measure	Jordan	Casey
Investments	$13,200	$20,200
Cash	$20,300	$19,300
Student loans	$126,750	$132,750
Approximate net worth	-$93,250	-$93,250

Q2

Who made the better decisions?

A. Jordan
B. Casey

Decision Point 2: Raises and Early Progress

- Ages 28-30 (years 2-3)
- Both pharmacists receive normal annual raises.
- Both remain at the same employer.
- Neither experiences a major emergency or unexpected financial event.

Decision Point 2

Jordan

- Continues the original approach
- Employer retirement contribution maintained at the match level
- Most additional available money directed toward student loans
- Home-purchase savings continue
- Modest additional investing continues

Casey

- Casey continues dividing additional resources among…
- Student loans
- Home savings
- Investing
- A modest lifestyle increase
- Employer retirement contribution maintained at the match level

End of Year 3

Measure	Jordan	Casey
Investments	$43,500	$66,000
Cash	$41,800	$38,700
Student loans	$76,300	$95,400
Approximate net worth	$9,000	$9,300

Q3

After three years, who appears to be ahead?

A. Jordan
B. Casey
C. They remain approximately equivalent

Decision Point 3: The Home Purchase

- Ages 31 (year 5)
- Both pharmacists decide they are ready to purchase homes.
- Each selects a home priced at $310,000.
- Neither experiences a major emergency or unexpected financial event.
- Both have strong credit, stable employment, sufficient income, adequate mortgage approval, and several years of savings.

Decision Point 3

Jordan

- Home price: $310,000
- Down payment: $62,000 (20%)
- Initial mortgage: $248,000
- Approximate monthly payment (principal + interest): $1,527
- No private mortgage insurance
- Cash remaining after down payment: $2,700

Casey

- Home price: $310,000
- Down payment: $31,000 (10%)
- Initial mortgage: $279,000
- Approximate monthly payment (principal + interest): $1,718
- Temporary private mortgage insurance
- Cash remaining after down payment: $28,400

End Of Year 5

Measure	Jordan	Casey
Investments	$79,600	$119,900
Cash	$2,700	$28,400
Student loans	$20,200	$53,700
Initial home equity	$62,000	$31,000
Approximate net worth	$124,100	$125,600

Q4

Which pharmacist made the more financially responsible home-purchase decision?

A. Jordan
B. Casey
C. Both decisions are equally defensible

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Decision Point 4: Ordinary Life Arrives

- Ages 32 (year 6)
- Within ~12 months of purchasing their homes, both pharmacists experience the same combination of expenses.
  - Major HVAC and home repair expenses: $14,000
  - Family medical and travel expenses: $7,000
  - Unpaid time away from work or another irregular household expense: $5,000
- Total: $26,000

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Decision Point 4

Jordan
- Uses available cash
- Opens a home-equity credit line
- Finishes the year with ~$16,500 of new debt
- Temporarily reduces additional investment contributions
- Continues contributing enough to preserve the employer match
- Directs future surplus toward the new debt and rebuilding savings

Casey
- Uses ~$26,000 of cash
- Avoids new debt
- Continues scheduled investment contributions
- Continues normal student loan payments
- Finishes the year with ~$12,000 in accessible cash after partial replenishment

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End Of Year 6

Measure	Jordan	Casey
Investments	$98,200	$150,200
Cash	~$0	~$12,200
Student loans	$6,000	$35,000
New credit-line debt	$16,500	$0
Approximate net worth	$150,000	$171,000

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Q5

Did the Year 5 home-purchase decision change how each pharmacist was able to respond in Year 6?

A. Yes
B. No

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Decision Point 5: The Market Decline

- Ages 33 (year 7)
- Financial markets decline approximately 20%.
- Both pharmacists experience the same percentage decline.
- Neither could predict the event.
- Neither sells investments in response.

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Decision Point 5

Jordan

Jordan is simultaneously…
- Repaying the new credit-line balance
- Rebuilding accessible savings
- Completing student loan repayment
- Maintaining the mortgage
- Contributing enough to receive the employer match

Casey

Casey also experiences investment losses

Casey continues the scheduled retirement and investment contributions

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End Of Year 7

Measure	Jordan	Casey
Investments	$91,900	$142,600
Cash	$1,000	$21,600
Student loans	$0	$20,000
Credit-line debt	$10,900	$0
Approximate net worth	$169,000	$201,000

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Q6

Which pharmacist is in the stronger position now?

A. Jordan, because the student loans are gone
B. Casey, because there is more liquidity and invested capital
C. The answer still depends on future events

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Decision Point 6: The Career Opportunity

- Ages 35 (year 9)
- Both pharmacists are offered similar professional opportunities.
  - Approximately 15% higher salary
  - Better advancement potential
  - Relocation or significant commute change
  - Approximately $15,000 in transition costs
  - Possible one-month gap or overlapping housing expense
  - Greater short-term uncertainty
  - No guarantee that the new role will be permanent
- Both pharmacists are equally qualified, are offered comparable compensation, and find the opportunity professionally attractive.

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Decision Point 6

Jordan	Casey
At this point Jordan has…	At this point Casey has…
• Eliminated student loans	• No consumer or credit-line debt
• Recently repaid or nearly repaid the credit line	• Adequate accessible savings
• Rebuilt some savings	• Ongoing investment contributions
• Restored higher investment contributions	• Sufficient cash to absorb transition costs
• Regained financial stability after several disruptive years	• Greater tolerance for a temporary disruption
Declines the opportunity	**Accepts the opportunity**

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Q7

Did Casey simply make a better career decision, or did Casey have a different set of financially available choices?

A. Casey simply made a better career decision
B. Casey had a different set of financially available choices

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Years 10-15: Jordan's Path Continues

- Jordan continues making strong progress…
  - Avoids major financial mistakes
  - Eliminates the credit-line balance
  - Increases retirement contributions
  - Maintains the lower mortgage payment
  - Rebuilds accessible savings
  - Receives normal salary increases
  - Remains free of student debt
- Approximate later annual behavior…
  - $7,000 in additional long-term investing beyond baseline retirement contributions
  - Approximately $4,500 per year added to accessible savings
  - Normal lifestyle increases

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Years 10-15: Casey's Path Continues

- Casey uses the higher income to…
  - Absorb a controlled lifestyle increase
  - Increase long-term investment contributions
  - Maintain mortgage and other obligations
  - Rebuild and expand accessible savings
- Approximate later annual behavior…
  - Approximately $17,000 per year added to cash and medium-term savings
  - Approximately $21,000 in additional long-term investing beyond baseline retirement contributions
  - Controlled lifestyle expansion

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Final Outcome

- Age 42 (year 15)
- Neither pharmacist receives…
  - Business windfall
  - Concentrated stock gain
  - Cryptocurrency profits
  - Family financial assistance
  - Inheritance
  - Unusually high investment returns
- Both experience the same market returns.
- Both remain financially responsible.

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End of Year 15

Measure	Jordan	Casey
Current salary	$212,000	$244,000
Investments	$397,000	$640,000
Cash	$41,000	$154,000
Student loans	$0	$0
Consumer or credit-line debt	$0	$0
Home value	$417,000	$417,000
Remaining mortgage	$209,000	$235,000
Home equity	$208,000	$182,000
Approximate net worth	$646,000	$976,000

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Q8

Which decision created the difference?

Which decision created the difference?

Key facts along the way…

1. Casey retained more cash after the home purchase.
2. That cash absorbed the Year 6 expenses.
3. Avoiding new debt allowed scheduled investing to continue.
4. Continued progress left more flexibility during the career decision.
5. The career move increased future income.
6. The additional income flowed into savings and investments.
7. Each effect altered the next decision.

Pharmacy Brain vs. Finance Brain

Pharmacy Brain

Selection-based thinking → "Which acceptable answer is best?"

- Compares several acceptable options against each other
- Narrows toward one defensible recommendation
- Seeks the strongest individual answer from multiple acceptable answers

Pharmacy Brain vs. Finance Brain

Pharmacy Brain

Selection-based thinking → "Which acceptable answer is best?"

- Compares several acceptable options against each other
- Narrows toward one defensible recommendation
- Seeks the strongest individual answer from multiple acceptable answers

Finance Brain

Combination-based thinking → "Which combination of acceptable answers works best together?"

- Reframes the question within the financial system
- Divides resources across several acceptable priorities
- Builds the strongest overall combination

Pharmacy Brain vs. Finance Brain

Pharmacy Brain	Finance Brain
Selection-based thinking → "Which acceptable answer is best?"	Combination-based thinking → "Which combination of acceptable answers works best together?"
• Compares several acceptable options against each other	• Reframes the question within the financial system
• Narrows toward one defensible recommendation	• Divides resources across several acceptable priorities
• Seeks the strongest individual answer from multiple acceptable answers	• Builds the strongest overall combination

Jordan was making pharmacy decisions about financial problems

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Pharmacy Brain vs. Finance Brain

Pharmacy Brain	Finance Brain
Selection-based thinking → "Which acceptable answer is best?"	Combination-based thinking → "Which combination of acceptable answers works best together?"
• Compares several acceptable options against each other	• Reframes the question within the financial system
• Narrows toward one defensible recommendation	• Divides resources across several acceptable priorities
• Seeks the strongest individual answer from multiple acceptable answers	• Builds the strongest overall combination

Jordan was making pharmacy decisions about financial problems

Jordan was using his Pharmacy Brain off-label

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Decision Compounding

Every financial decision changes the conditions surrounding the next one.

Decision made → Resources and obligations change → Future choices expand or narrow → Next decision begins from a different starting point

The sequence repeats over time

Small structural advantages or disadvantages accumulate as the sequence repeats.

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Q9

Which statement best describes the importance of sequencing in financial decisions?

A. A decision can change the resources available for future decisions.
B. The highest-return option should be selected before other goals.
C. Debt repayment and investing should be evaluated without considering timing.
D. Future opportunities are separate from earlier financial choices.

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Jordan's Compounding Chain

1. Accelerated loan repayment reduced one obligation quickly.
2. A large down payment improved the mortgage transaction.
3. Little accessible cash remained.
4. Ordinary expenses required temporary borrowing.
5. Future income had to repair the disruption.
6. Investing slowed during the repair period.
7. The career opportunity arrived before full flexibility had returned.
8. Declining the opportunity limited later income growth.

Casey's Compounding Chain

1. Casey advanced several goals simultaneously.
2. More accessible cash remained after buying the home.
3. Ordinary expenses did not require new debt.
4. Planned investing continued during the market decline.
5. Greater flexibility existed when the career opportunity appeared.
6. The opportunity increased income.
7. Higher income strengthened savings and investment capacity.
8. Each decision improved the environment for the next one.

Final Systems-Based Interpretation (Jordan)

- Jordan's recurring question, "What is the best decision in front of me?"
- Jordan repeatedly selected:
  - Avoided fee
  - Guaranteed return
  - Lower mortgage
  - Safest immediate career choice
  - Visible debt reduction

Final Systems-Based Interpretation (Casey)

- Casey's recurring question, "How much progress do I want to make in each area, and what will remain available afterward?"
- Casey repeatedly selected:
  - Accepted PMI
  - Carried student debt longer
  - Invested while debt remained
  - Kept a larger mortgage
  - Maintained more cash

Final Systems-Based Interpretation

- Jordan attempted to make the best individual decisions.
- Casey built a combination of reasonable decisions that consistently supported one another.

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Technician Question

- The dollar amounts and account complexity in the case reflect new pharmacists.
- The structural lesson applies across pharmacy roles.
- The numbers differ.
- The interaction between decisions remains.

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From Individual Decisions to a Financial System

What should I do? → How should these pieces be structured?

1. Cash Flow Structure
2. Account Role Map
3. Decision Rules
4. Reserve System
5. Investment Structure
6. Time Horizon Framework

A financial system is the architecture that coordinates decisions over time.

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Cash Flow Structure

Employer retirement plan contributions
↓
Household income
↓
Checking central cash-flow hub

- Fixed obligations (mortgage/rent, insurance, debt payments, etc.)
- Reserve contributions (HYSA)
- Retirement contributions (IRA)
- Long-term investing (Brokerage)
- Goal-specific savings

The same income must support current needs, future goals, and existing obligations.

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Account Role Map

Account	Primary role
Checking	Income receipt and routine transactions
HYSA	Emergency and near-term reserves
Employer retirement plan	Employer benefits and long-term retirement accumulation
IRA	Individual retirement savings and tax diversification
Brokerage	Flexible long-term investing outside retirement accounts
Goal-specific accounts	Education, healthcare, housing, or other defined needs

The account name matters less than whether the account has a clear job.

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Q10

Which statement best demonstrates clearly defined account roles?

A. Use each account primarily to maximize return.
B. Treat checking, savings, retirement, and brokerage accounts as interchangeable.
C. Match each account to its purpose, access needs, tax treatment, and time horizon.
D. Use the account with the largest balance first whenever money is needed.

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Decision Rules

Contribution Rules
- How much goes toward each account
- Which contributions happen automatically

Routing Rules
- Where additional income goes
- What happens after a target is reached

Replenishment Rules
- How reserves are rebuilt after use
- How temporary disruptions are corrected

Adjustment Rules
- When allocations change
- What circumstances justify revisiting the structure

A rule does not need to be complicated.
It only needs to make the next decision less random.

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Reserve System

Reserve System	Description
Emergency Reserve	Unexpected essential expenses
Planned Expense Reserve	Predictable but irregular costs
Opportunity Reserve	Capital held for deployment during market drawdowns or other pre-defined investment opportunities
Transition Reserve	Career changes, relocation, or unpaid leave

A reserve system protects planned decisions from disruption while preserving capital for intentional deployment.

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Investment Structure

Account	Main advantage	Main limitation
Employer retirement plan	Employer match and tax advantages	Restricted access and plan limitations
IRA	Individual control and retirement tax advantages	Contribution and withdrawal rules
Brokerage	Flexible access and no retirement withdrawal restriction	Taxable investment activity

The investment holding may look similar, but the account's tax treatment and access rules change its role.

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Time Horizon Framework

Time horizon	Common account roles
Immediate	Checking
Short-term	HYSA and cash reserves
Medium-term	Goal-specific savings and conservative accessible assets
Long-term	Retirement accounts and brokerage investments

A resource designed for one time horizon may be poorly suited when the need appears in another.

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Q11

Which statement best describes a systems-based approach to financial decision-making?

A. Select the financial option with the highest expected return.
B. Evaluate how cash flow, account roles, debt, reserves, and timing interact before deciding
C. Focus on one financial priority until it is fully completed.
D. Follow the same financial sequence regardless of income, debt, or household needs.

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