

The Trade-Off Workbook

Twelve dilemmas, three checks and one matrix for decisions where something good must be given up.



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Illustration: the scale leans toward what is harder to win back.

How to use this workbook

Most hard decisions are not choices between good and bad. They are choices between two good things you cannot both have: an evening with a parent or a deadline met, a wetland or three hundred jobs, longer appointments or shorter queues. This workbook is for those decisions. It will not tell you what to choose. It gives you a way to see what each choice actually costs, who pays, and whether the choice is as forced as it looks.

Work through it in order the first time. After that, the **three checks** (page 4) and the **Decision Trade-Off Matrix** (pages 9–10) are the parts you will reuse. The twelve dilemmas are for practice. They are deliberately ordinary, because ordinary choices are where these habits are built.

Three kinds of statement

This guide separates what is known from what is argued and what is imagined. Each type is labelled:

- **[FACT]** A claim supported by a named source, listed with a working link on page 13.
- **[INTERPRETATION]** A reading of the evidence or an argument. Reasonable people can disagree with it.
- **[INVENTED]** An illustrative scenario. The towns, companies and people in it do not exist, and the numbers in it are not data.

What this guide is not

It is not financial, investment, legal or professional advice, and nothing here is a recommendation about your money. It is a thinking tool. Where real stakes are involved, use it alongside people who know your situation.

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Opportunity cost, without the money metaphor

The cost of a choice is not only what you hand over. It is the best thing you could have done instead, and now cannot. Economists call this **opportunity cost**, and it is probably the most useful idea the discipline has to offer people who will never study it.

[FACT] The CORE Econ textbook makes it part of the definition of scarcity: "A good is scarce if it is valued, and there is an opportunity cost of acquiring more of it." In its worked example about free time and consumption, the point is put plainly: "More of one good means less of the other."

[FACT] The idea is older than modern economics. In 1850 Frédéric Bastiat wrote that an economic act "engenders not just one effect but a series of effects", and that only the first is seen. A good decision-maker, in his account, is someone who also looks for the effects that are not seen.

Why money is a weak metaphor here

[INTERPRETATION] Opportunity cost is usually taught with prices: buy the cinema ticket and you cannot buy the book. That example is fine for teaching, but it quietly suggests that every cost can be expressed in money. Look at what people most often give up in real decisions: rest, a visit, a quiet place to study, a stretch of river, the trust of a patient who felt rushed. You can compare these with other things. Converting them into money hides the thing you were trying to understand.

[FACT] The legal scholar Cass Sunstein argued in 1994 that people value goods in different kinds of ways, and that forcing them onto a single metric can distort what we actually care about. The point is not that comparison is impossible. It is that comparison does not require conversion.

A practical definition

For this workbook, the opportunity cost of a decision is: **the specific best alternative you are giving up, described in its own terms, together with who would have benefited from it.** "Forty thousand rupees" is a number. "The evening library hours that shift workers use" is an opportunity cost.

The unseen side is unevenly shared

[FACT] Our World in Data's review of time-use surveys reports that "in all countries the average leisure time for men is higher than for women", largely because women do a disproportionate share of unpaid work.

[INTERPRETATION] When a household saves money by doing something itself, someone's time is the price. Naming whose time is the first step in any honest trade-off.

TRY IT NOW

Think of one decision you made this month. Write the best alternative you gave up in ten words or fewer, without using a number. Then write who, besides you, lost something.

Alternative given up: _____

Who else lost something: _____

Three checks: distribution, irreversibility, uncertainty

Once you have named what you are giving up, three checks tell you how heavy it is. They do not produce a score. They tell you where to look harder.

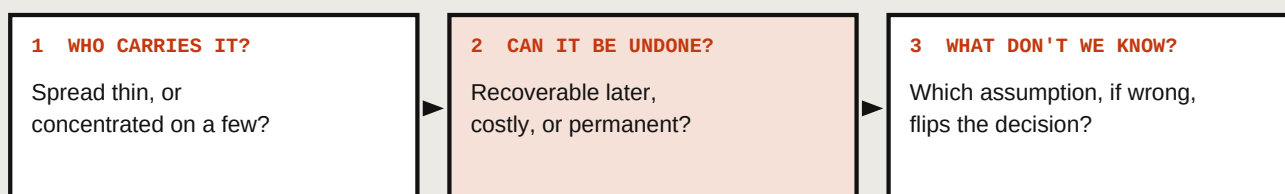


Figure 1. The three checks, applied after naming the opportunity cost. Original diagram.

Check 1 — Distribution: who carries it?

A cost spread thinly over many people is a different thing from the same total cost concentrated on a few. A small ticket price for a festival is trivial for most families and decisive for a large family on a tight budget. Averages hide this. Ask: *who carries most of this cost, did they have a say, and can they absorb it?*

[INTERPRETATION] A decision with a fair-sounding total can still be the least fair option on the table.

Check 2 — Irreversibility: can it be undone?

Some losses can be recovered later at modest cost: a delayed repair, a postponed course. Some are expensive to recover: a broken habit of trust, a lost season. Some are close to permanent: a drained wetland, a mature tree, a last conversation. [INTERPRETATION] When one side of a trade-off is irreversible, it deserves more weight than its size suggests, because choosing the reversible option keeps future choices open. Use three levels: **recoverable**, **costly to recover**, **hard to undo**.

Check 3 — Uncertainty: what don't we know?

Every trade-off rests on guesses: how many people would use the library in the evenings, whether the heatwave comes, whether the jobs materialise. Find the one assumption which, if wrong, would flip your decision. Then ask whether you can test it cheaply before committing: a pilot, a phone call, a month's trial. Be wary of uncertainty that always seems to favour postponing the slow, preventive option. Uncertain is not the same as unlikely.

A fourth question that comes afterwards

After the three checks, ask what **resists counting**: dignity, belonging, beauty, being heard. These things are not tie-breakers to mention at the end. Write them down beside the numbers, in words, so they are part of the decision rather than an afterthought.

Twelve allocation dilemmas

[INVENTED] All twelve are invented, ordinary situations. Each offers three good options and room for two. For each one: name the opportunity cost in words, run the three checks, then answer the question in the margin. There is no answer key. A good answer is one you could explain to the person who lost out.

01 · PUBLIC BUDGET	YOUR NOTES
The town surplus A council can fund two of three: evening library hours, repair of the worst potholes, or cooling shelters for heatwave days. <i>Ask: Which option's loss falls on the fewest people but with the highest stakes?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____
02 · HOUSEHOLD TIME	YOUR NOTES
Six free hours One clear Saturday afternoon. Visit an ageing parent, finish a paid freelance task, or rest properly. Each takes about three hours. <i>Ask: Which of these has a window that is quietly closing?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____
03 · TRANSPORT	YOUR NOTES
The transport fund A city can build a flyover at its worst junction, run 150 more buses, or build continuous footpaths and cycle lanes. Two fit in five years. <i>Ask: Who in your city cannot use the option you would give up?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____
04 · WORKPLACE	YOUR NOTES
The benefits pot A 60-person firm can afford two of: a pay rise for all, flexible hours and remote days, or a learning stipend. <i>Ask: Whose answer would differ most from yours, and why?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____

05 • ENVIRONMENT	YOUR NOTES
The river town Land by a river can serve two of three uses: protecting a wetland, a factory expansion with 300 jobs, or a concrete flood wall. <i>Ask: Which loss could never be bought back at any price?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____
06 • COMMUNITY EVENTS	YOUR NOTES
The festival A volunteer committee can keep entry free, pay local artists a fair fee, or make the event accessible with ramps, seating and a quiet zone. <i>Ask: Is being slightly inconvenienced the same as being excluded?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____
07 • PUBLIC SERVICES	YOUR NOTES
The clinic schedule A clinic can offer 20-minute visits, more appointments per day, or two evening sessions a week, but only two of these. <i>Ask: Who disappears from the data when the queue is too long?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____
08 • SHARED SPACE	YOUR NOTES
The last open plot One open plot remains: a cricket ground for young people, shaded seating and a walking loop for elders, or trees and a wild patch. <i>Ask: Which option benefits people who do not live here yet?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____

09 • WORKPLACE	YOUR NOTES
The final sprint A software team has one sprint before a launch: fix accessibility bugs, ship a promised feature, or pay down security debt. <i>Ask: Which failure would be invisible until it was too late?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____
10 • HOUSEHOLD	YOUR NOTES
The family cushion A family with a modest sum can keep an emergency cushion, help a sibling with college fees, or fix a leaking roof. Not personal advice: a thinking exercise. <i>Ask: Which option protects against the worst case rather than the likely one?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____
11 • EDUCATION	YOUR NOTES
The school timetable A school can add one period a week. Extra maths, arts and music, or unstructured outdoor play. A second period will come next year. <i>Ask: Which choice is easiest to measure, and does that make it more important?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____
12 • ENVIRONMENT	YOUR NOTES
The dry summer A reservoir is low. Water managers can protect irrigation for farms, keep household supply uncut, or maintain river flow for fish. Two can be met in full. <i>Ask: Which group has the least power to argue its case?</i>	Giving up: _____ Who carries it: _____ Undo-able? ☐ yes ☐ costly ☐ no Key unknown: _____

Redesigning apparent trade-offs

Many trade-offs are framed rather than found. Before you choose between two good things, spend ten minutes asking whether a different design could give you most of both. Redesign rarely makes a cost disappear. Usually it makes the cost smaller, shares it more fairly, or moves it to where it hurts less.

[FACT] Elinor Ostrom's 2009 Nobel lecture describes communities that govern shared resources such as fisheries, forests and irrigation systems through rules they craft themselves. That falls outside the familiar choice between leaving things to the market and handing them to the state. The lesson generalises: when a decision is presented as either/or, look for a third arrangement.

FRAMED AS	REDESIGNED AS	WHAT IT STILL COSTS
[INVENTED] Library hours vs heat shelters	Equip the library as the cooling shelter. One building, longer hours in hot months, staff trained for both roles.	Staffing and training. Smaller, and shared across two goals.
[INVENTED] Wetland vs flood wall	Treat the wetland as part of the flood defence, with a smaller wall only where low-lying streets need it.	Engineering study and uncertainty about the site. Not guaranteed to be enough.
[INVENTED] Longer visits vs shorter waits	A short first call sorts by need. Long visits go to complex cases; routine follow-ups go to a nurse or a phone slot.	Running a fair sorting system, and the risk of sorting someone wrongly.
[INVENTED] Cricket vs elders' seating	Share the plot by time and edge: shaded loop and benches around the boundary, play in the centre after school, calm mornings.	Agreeing and enforcing shared rules locally.

Five moves that often reveal a redesign

- **Share the asset.** Can one building, plot or budget line serve two purposes at different times?
- **Sequence instead of choosing.** Can one option go first and the other follow, with a firm date?
- **Sort by need.** Can a quick triage send the expensive resource only where it matters most?
- **Pilot before committing.** Can a cheap trial settle the key unknown from Check 3?
- **Change who pays.** Can a cost move from those least able to bear it to those most able, for example through a sponsor, a sliding scale or a pay-what-you-can ticket?

The Decision Trade-Off Matrix

The matrix puts everything from the earlier parts on one page. It has columns for numbers where numbers are honest, and columns for values in words where they are not. Do not total it. Its job is to make the trade-off visible, so you can decide and then explain your decision.

How to fill it in

- One row per option, including the one you expect to give up.
- **What it gives:** the main benefit, in plain words.
- **Measurable:** only the figures you actually have, such as cost, hours or people reached. Leave it blank rather than guess.
- **Unquantified values:** dignity, belonging, trust, beauty, safety. In words, never as a score.
- **Who carries the loss** if this option is the one given up, and **Undo?** on the three-level scale.
- **Key unknown:** the assumption that would change your mind.

Worked example: Dilemma 01, the town surplus

[INVENTED] A fictional council. Figures are illustrative only.

OPTION	WHAT IT GIVES	MEASURABLE	UNQUANTIFIED VALUES	IF GIVEN UP, WHO CARRIES IT	UNDO?	KEY UNKNOWN
A Library to 9 pm	Evening study and reading space	Staff cost for 1 year; ~opening 15 extra hrs/week	A safe, free, lit room; belonging	Students in crowded homes; shift workers	Recoverable	Evening demand
B Pothole repair	Safer, faster main road	Repair cost; km of road	Less daily stress; fewer near-misses	Two-wheeler riders, cyclists, auto drivers	Costly	Rainfall this season
C Heat shelters	Somewhere cool on extreme days	Set-up cost; shelter capacity	Protection of life; being cared for	Older people, outdoor workers, people living alone	Hard to undo	Whether a severe heatwave comes

Reading the matrix. [INTERPRETATION] Option C has the smallest group but the only "hard to undo" loss, and its key unknown (whether a heatwave comes) is exactly the kind that tempts postponement. A reasonable council might fund B and C, then check the redesign on page 8 (the library as the shelter) to recover much of A. Another council could reasonably decide differently. What matters is that it can say why, and to whom the cost falls.

Decision Trade-Off Matrix

Decision: _____ Date: _____ Who decides: _____

OPTION	WHAT IT GIVES	MEASURABLE (only what you know)	UNQUANTIFIED VALUES (in words)	IF GIVEN UP, WHO CARRIES IT	UNDO?	KEY UNKNOWN
A					☐ recoverable ☐ costly ☐ hard to undo	
B					☐ recoverable ☐ costly ☐ hard to undo	
C					☐ recoverable ☐ costly ☐ hard to undo	
D					☐ recoverable ☐ costly ☐ hard to undo	

REDESIGN CHECK (10 MINUTES)	MY DECISION, IN ONE SENTENCE
☐ Share the asset ☐ Sequence ☐ Sort by need ☐ Pilot first ☐ Change who pays Idea: _____ _____	We will choose _____ and _____, and give up _____, because _____ The people who carry this are _____ and we will _____ for them.

Unquantified values are shaded on purpose: they belong in the decision, written in words, not converted into points.

Explaining a difficult decision

Every real trade-off creates people who lost something. How you tell them is part of the decision. People can often accept losing a choice when the decision was honest, the reasoning was visible and their loss was acknowledged. They find it much harder to accept a loss that was hidden or explained away.

Four things a good explanation does

- **Names what was given up**, specifically, without euphemism. Not "resources were reprioritised", but "we are not extending library hours this year".
- **Shows the reasoning**, including the three checks: who carries the cost, what could not be undone, what was uncertain.
- **Acknowledges who loses**, directly and to them, not only in a general announcement.
- **Says what happens next**: a review date, a pilot, a partial measure, or how to challenge the decision.

Language you can adapt

INSTEAD OF	TRY
"There was simply no money for it."	"We had enough for two of three things. We chose X and Y, which means we are not doing Z this year."
"This is the best outcome for everyone."	"This decision costs some people more than others. Mostly it falls on ____, and here is what we are doing about that."
"The data clearly shows..."	"Our best estimate is _____. The thing we are least sure about is ____, and we will check it by _____."
"We hear your concerns."	"You told us _____. It changed _____ in the plan. It did not change ____, and this is why."
"It was a tough call."	"We gave extra weight to _____ because, unlike the alternative, it could not be undone later."

[INTERPRETATION] None of these phrases make a loss painless. They make it legible, and a legible decision can be argued with, improved or reversed. A hidden decision usually cannot.

Reflection questions and a one-minute checklist

Reflection questions

- Which of the twelve dilemmas was hardest for you, and was it hard because of the stakes or because of who lost out?
- Looking at what you gave up across the dilemmas, do you tend to sacrifice the long-term option or the immediate one? Is that a choice you would defend?
- When did you last accept an either/or framing that, looking back, had a third option?
- Whose time pays for the "savings" in your household or workplace?
- Which thing that you value most would score lowest in a spreadsheet? What protects it in your decisions?
- Think of a decision someone made that cost you. Which of the four parts of a good explanation (page 11) was missing?

The one-minute checklist

CHECK	
I can name the best alternative I am giving up, in words.	☐
I know who carries most of the cost, and whether they had a say.	☐
I have marked each option recoverable, costly or hard to undo.	☐
I have found the one unknown that could flip the decision, and asked if I can test it.	☐
I have written down, in words, what resists counting.	☐
I spent ten minutes looking for a redesign.	☐
I can explain this decision to the person who loses most, face to face.	☐

Sources and further reading

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<https://books.core-econ.org/the-economy/microeconomics/03-scarcity-wellbeing-02-choice-and-scarcity.html>
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<https://princeton.edu/news/2013/08/29/poor-concentration-poverty-reduces-brainpower-needed-navigating-other-areas-life>
7. Elinor Ostrom (2009), Nobel Prize lecture, "Beyond Markets and States: Polycentric Governance of Complex Economic Systems".
<https://www.nobelprize.org/prizes/economic-sciences/2009/ostrom/lecture/>

Every statement marked [FACT] in this workbook is traceable to one of the sources above. Statements marked [INTERPRETATION] are the author's arguments. Everything marked [INVENTED], including all names, places and figures in the dilemmas, is fictional and illustrative.

CONTINUE IN THE TRADE-OFF ROOM

Eight interactive rooms where you choose two of three and watch a balance scale lean by what you gave up, with the four lenses for each choice.

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