

BEYOND TECHNICAL BACKLOGS

Technical Debt Has Become Strategic Debt — and the Recovery Bill Is Already Due

An authoritative 2021 assessment of the pandemic shortcuts now constraining digital change

Giovanni Leonardi

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1. The Shortcut That Became a Dependency

In March 2020, a customer service function needs to move 1,600 people out of offices in ten days. A small technology team assembles remote access, expands virtual desktops, adds identity checks and diverts calls to software-based telephony. Interfaces that would normally take months are connected in a week. Manual reconciliations bridge the gaps. Senior leaders rightly celebrate an extraordinary result: service continues.

By March 2021, the same arrangement supports three new digital channels and nearly twice the original remote traffic. The temporary reconciliation is performed by 26 people every morning. A nightly data transfer fails twice a week. Release teams require four separate approvals because nobody is certain which component owns the customer record. The emergency solution still works, but every change now carries the weight of decisions made under extreme time pressure.

This is no longer technical debt in the narrow sense. It is strategic debt: a growing constraint on the organisation's ability to change, control risk and pursue the digital ambitions the emergency accelerated.

The distinction matters. Technical debt is often treated as an engineering concern to be paid from an information-technology budget when time permits. Strategic debt belongs on the enterprise transformation agenda because it changes the cost, speed and credibility of future choices. The bill appears not only in maintenance expenditure, but in delayed products, fragile operations, duplicated controls and the opportunities leaders quietly stop considering.

This paper recommends that organisations in 2021 create a time-bound strategic debt recovery portfolio tied directly to their post-emergency priorities. The aim is not to perfect every hurried solution. It is to identify which accumulated compromises now threaten strategic freedom, then retire, contain or deliberately carry them.

2. Why the Debt Is Different This Time

Technical debt predates the pandemic. Every organisation carries ageing applications, duplicated data, undocumented interfaces and deferred upgrades. Some debt is rational: shipping a workable service early can create value that outweighs later remediation. The

problem is not the existence of debt. It is the absence of an explicit decision about its terms.

The emergency created debt with three unusual characteristics.

- It was created across the enterprise at once. Remote access, digital sales, workforce systems, supply-chain visibility and online service changed simultaneously. Dependencies multiplied faster than architecture records could be updated.
- Temporary controls became operating controls. Spreadsheet reconciliations, manual approvals and elevated access were accepted because continuity mattered more than elegance. After a year, some are now embedded in daily work.
- Demand grew around the workaround. Customers and employees adopted digital routes that were initially intended as contingency channels. The temporary platform now carries permanent expectations.

The result is not a pile of isolated defects. It is a network of obligations. One rushed interface forces a manual control; the manual control restricts release timing; the restricted release window slows product changes; the slower product cycle encourages another workaround. Debt compounds because each compromise becomes a constraint on the next decision.

Strategic debt is technical debt that has begun to determine which business choices remain feasible.

3. The Cost That Budgets Do Not Show

A conventional technology budget can show licence fees, infrastructure, support staff and project expenditure. It rarely shows the full cost of structural friction.

Consider a composite insurer that launched an online claims route during the first months of the pandemic. The front end was built quickly and connected to a core policy system through a nightly file. A manual team reviewed exceptions because policy data used different formats across six inherited products.

The channel is successful. Monthly digital claims rise from 18,000 to 47,000. Yet the exception rate remains at 14 per cent, requiring 19 full-time staff. The nightly file means customers can see yesterday's position but not today's. A new fraud rule takes eleven weeks to deploy because it must be reproduced in the online form, the transfer process and the core workflow. Two control failures lead to additional sign-offs, extending the release cycle again.

The visible annual cost of the manual team is approximately £720,000. The strategic cost is larger:

- Fraud controls respond slowly to changing patterns.
- Product teams avoid features requiring real-time policy data.
- Customer communications are designed around the batch delay.

- Skilled engineers spend release time protecting an interface nobody wants.
- Management cannot retire the digital channel because customers now rely on it.

If the programme board sees only the £720,000, it will compare remediation with labour savings and may defer the work. If it sees the constrained product roadmap, control exposure and dependence on scarce knowledge, the investment case changes.

This is why the debt must be valued in terms of option loss as well as operating cost. What initiative is slower, riskier or impossible because the compromise remains? Which benefit in the transformation portfolio is conditional on removing it? Which control depends on people remembering a workaround?

4. Three Responses — and Their Limits

Leaders facing this problem tend to choose among three responses.

4.1 Continue to carry the debt

The case for carrying it is stronger than technologists sometimes admit. The organisation may still face uncertain demand and severe financial pressure. Rebuilding a functioning service can divert scarce capability from customer needs. Some temporary solutions may be retired naturally as volumes or policies change. Remediation for its own sake can become an expensive pursuit of elegance.

Carrying debt is legitimate when the exposure is understood, bounded and assigned. It is not legitimate when “temporary” simply means no executive has accepted the cost of continuation.

4.2 Launch a broad modernisation programme

A large replacement programme promises coherence: common platforms, simplified data, standard controls and retired legacy systems. In some estates, that may be necessary. But broad modernisation carries familiar risks. Scope expands, benefits move years into the future, and urgent dependencies remain unresolved while the target architecture is designed. The organisation can spend heavily on a future solution without reducing today’s fragility.

Modernisation should therefore be reserved for debt rooted in structural platforms that cannot be contained incrementally. It is not the default answer to every pandemic workaround.

4.3 Remediate debt inside business initiatives

Embedding remediation in product and transformation programmes keeps the work tied to value. A customer programme that needs real-time data funds the interface change; a workforce programme retires the emergency access model it depends upon. This avoids a purely technical backlog.

Its weakness is fragmentation. Each initiative fixes only what it needs, often adding another local design. Debt without an immediate sponsor remains untouched, even when it creates enterprise risk.

The strongest approach combines the latter two ideas: a central strategic debt portfolio sets priorities and architectural boundaries, while remediation is delivered through the business initiatives that benefit wherever possible. Standalone work is funded only where risk or dependency cannot wait for a convenient sponsor.

5. A Strategic Debt Assessment

The first task is not to count defects. It is to map debt against strategy.

Each material debt item should be described through six questions:

Question	Evidence required
What compromise was made?	The shortcut, deferred control or duplicated component
Why was it rational then?	The emergency outcome it protected
What depends on it now?	Services, products, controls, teams and suppliers
How does it constrain strategy?	Delayed initiative, unavailable option or benefit at risk
What is the exposure of carrying it?	Cost, failure impact, security, compliance and key-person reliance
What are the choices?	Retire, remediate, contain, replace or consciously accept

This produces a strategic debt register, but the register must not become another inventory without consequence. Each item needs an accountable business owner, not only a technical custodian. The owner is responsible for deciding whether the debt should be paid, contained or carried in light of the outcome it affects.

Scoring should combine four dimensions:

- Operational fragility: likelihood and consequence of service or control failure.
- Change friction: delay, cost and uncertainty added to priority initiatives.
- Knowledge concentration: dependence on a small number of people or suppliers.
- Option constraint: strategic choices made unattractive or impossible.

A high score in any one dimension may justify action. Adding the scores into a single total can conceal a critical weakness; an item with modest operating cost but catastrophic knowledge concentration should not be averaged into safety.

6. How the Recovery Portfolio Should Work

The portfolio should operate for twelve to eighteen months, long enough to change material structures but short enough to preserve urgency.

6.1 Establish ownership

A joint business and technology authority should sponsor the portfolio. Technology identifies the debt; business leadership decides the strategic consequence. Finance validates cost and option assumptions. Risk tests control exposure. Architecture sets boundaries so local remediation does not create the next generation of debt.

6.2 Link debt to priorities

Every major 2021 transformation initiative should declare the debt on which its benefits depend. If a digital sales programme assumes consistent customer data, the relevant data remediation becomes part of its critical path. If a hybrid-work model relies on secure remote access, emergency access arrangements cannot remain an unpriced technical concern.

The portfolio office should maintain a dependency map showing:

- Strategic initiative
- Required capability
- Debt constraint
- Decision date
- Funding owner
- Consequence of delay

This turns debt repayment from discretionary housekeeping into visible benefit protection.

6.3 Choose a treatment

Each item receives one of five treatments.

1. Retire: remove a temporary service, interface or control no longer needed.
2. Remediate: improve the component while preserving the wider design.
3. Contain: isolate the debt through monitoring, automation or tighter boundaries.
4. Replace: move to a different component or platform when the structure is exhausted.
5. Accept: carry the debt for a defined period with an owner, exposure limit and review date.

Acceptance is a decision, not a status of neglect. An accepted item must state the interest being paid: support effort, slower releases, additional control or restricted scope.

6.4 Fund by protected value

The business case should connect remediation to the benefit or risk it protects. Pure cost reduction will miss much of the value. A £900,000 interface replacement may save only £200,000 a year directly but protect a £12 million customer programme from a six-month delay. The decision should show both numbers without pretending they are identical.

Funding should combine:

- Initiative funding for debt directly enabling a business outcome
- Central risk funding for urgent control or resilience exposure
- Technology lifecycle funding for routine maintenance and obsolescence
- Contingency for debt discovered during delivery

6.5 Govern evidence, not volume

The portfolio should report fewer meaningful measures rather than celebrate closure counts.

Measure	What it reveals
Change lead time	Whether friction is actually reducing
Failure and recovery pattern	Whether operational fragility is falling
Manual control effort	Whether temporary labour is being removed
Dependency concentration	Whether key-person and supplier exposure is declining
Benefit unlocked	Which strategic initiative can now proceed or accelerate
Accepted debt ageing	Whether conscious acceptance is becoming silent permanence

A debt item closes only when the affected service, control or initiative shows the expected change. Code completed is not debt repaid if release lead time, exception effort or failure exposure remains unchanged.

7. The Objection: This Is the Wrong Moment

The strongest objection is financial and practical. Organisations are still navigating uncertain demand, disrupted operations and exhausted teams. Creating another portfolio risks competing with recovery, customer service and growth. The emergency solutions have proved resilient enough to survive a difficult year; replacing them now could introduce more risk than it removes.

That objection should rule out indiscriminate cleanup. It should not rule out strategic action.

The same uncertainty makes optionality more valuable. An organisation unable to change products, channels or controls quickly is less able to respond to the next shift. The answer is not to repay every debt, but to distinguish debt that merely offends technical preference from debt that narrows strategic choice. The former can wait. The latter is already charging interest against recovery.

8. The Recommendation

Boards and executive teams should treat pandemic-created technical debt as a bounded enterprise transformation issue during 2021.

The recommendation has four parts:

1. Create a strategic debt register mapped to priority outcomes and controls, not a generic defect inventory.
2. Establish joint business and technology ownership for treatment decisions.
3. Deliver repayment through benefiting initiatives where possible, with central funding for enterprise exposure.
4. Time-limit every acceptance decision and measure whether operating and change friction actually falls.

This approach avoids two extremes: pretending emergency architecture can become permanent without consequence, and launching a sweeping modernisation programme that outruns the organisation's capacity. It preserves the speed learned during the crisis while restoring the discipline that urgency temporarily suspended.

The bill is not coming due at one dramatic moment. It is already being paid through every delayed release, manual reconciliation, duplicated control and abandoned option. The strategic choice is whether to keep paying interest invisibly or convert that cost into deliberate recovery.