

THE IN A HURRY SERIES

Debt *in a Hurry*

The promise that runs the world

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The Whole Thing in One Page

Debt is often described as borrowed money. That describes the first minute and misses the next thirty years. Money moves once. The promise remains.

Debt turns future resources into present purchasing power. The borrower receives resources now and promises payment later. The lender receives a claim with currency, maturity, priority and remedies. That architecture matters as much as the interest rate. Two promises for the same £100 can be different economic objects if one is secured on a house, one ranks behind every other creditor, and one can be rewritten by a majority vote of bondholders.

Interest is the visible price of the bargain. It can contain payment for waiting, expected inflation, expected default loss, funding and administration, difficulty selling the claim, and bargaining power. Creditworthiness is therefore not a verdict on character. It is a forecast built from income, assets, records, institutions and enforceability. Modern credit expanded when those things became portable enough for strangers to trust promises made by people they had never met.

Banks scale the system in a distinctive way. When a commercial bank lends, it normally creates a matching deposit, then must settle payments, obtain funding, hold liquid assets and maintain enough capital to absorb losses. Bonds scale credit differently by splitting a large promise among investors who can trade it. Mortgages attach debt to property. Corporate loans add covenants and priority. Government bonds attach repayment to future public revenues and the state's institutional capacity.

The central danger follows from the same design that makes debt useful. The contract is more rigid than the future. Income can fall, interest rates can reset, currencies can move and collateral can lose value. Leverage makes the gap matter quickly. Buy a £100 asset with £10 of your own money and £90 of debt and a 10 per cent fall can erase the owner's entire cushion. When many balance sheets are built around the same collateral and refinancing dates, defensive acts such as selling assets or refusing new

credit can deepen the loss for everyone.

Failure therefore cannot be understood as a broken moral promise alone. It is a problem of loss allocation. Bankruptcy, foreclosure, restructuring, maturity extension, write-downs, inflation and public support determine which claims keep their force when all cannot be paid as written. These rules are not an embarrassing exception to credit. They are part of what makes lending possible before anything goes wrong, because creditors price the route through failure as well as the route through repayment.

This is why debt has always attracted moral language. A contract can finance a home, a factory, a war, a speculative bubble or a rescue after disaster. Enforcement can protect trust and destroy a viable borrower. Forgiveness can restore economic life and shift costs onto people who kept their side of the bargain. The useful question is not whether debt is good or bad. It is what future is being brought forward, who holds the claim, what gives that claim force, what can break before maturity, and who absorbs the loss if the promise cannot survive reality.

Debt runs the world because enforceable promises let people act before they have earned the resources to do so. It shakes the world when too many of those promises become stronger than the cash flows beneath them.

That is the book.

Why You Should Care

In 2024 the International Monetary Fund estimated global public and private non-financial debt at about \$251 trillion, more than 235 per cent of world GDP. The number is too large to picture. Its machinery is easier to see in a kitchen on mortgage-payment day, in a finance director watching a bond mature, or in a treasury deciding how much of next year's tax revenue has already been promised away.

Debt makes time negotiable. A household can live in a home decades before earning its purchase price. A firm can build a factory before the first unit leaves the line. A government can respond to war, recession or disaster

before the matching taxes arrive. The trade is obvious once stated: more capacity now in exchange for less freedom later. Future income arrives with prior claims attached.

Those claims are everywhere because one person's debt is another person's asset. Your bank deposit is the bank's liability. A pension fund may hold government bonds because their scheduled payments match future pensions. A company's bondholders stand in a different position from its shareholders because the bond promises cash on dates the shareholders cannot vote away. The same instrument therefore links people who may never know one another and gives them opposite interests when conditions change.

That is why a private contract can become a public event. One missed payment is local. Thousands of missed payments can weaken lenders, lower collateral values and stop new credit. Banks are unusually important because their liabilities function as money for customers and because their balance sheets connect payment, lending and confidence. When losses threaten those functions, governments and central banks may intervene even while insisting that owners and creditors should bear consequences. The fight is then about ranking: which promise is protected first, and who is moved down the queue.

Public debt shows the same logic at state scale. The Bank of England was founded in 1694 around a £1.2 million loan to a government financing war with France. The arrangement tied private investors to future taxation and helped make prolonged state borrowing more credible. Modern public debt has many additional functions. Government securities provide savings instruments, benchmarks and collateral across financial markets while also committing future budgets to interest and principal. Calling them only a burden or only a safe asset throws away half the picture.

Debt also exposes how thin the line is between economics and law. Interest rates respond to expected cash flow, but also to collateral rights, bankruptcy procedures, creditor priority and the likelihood that a court or state will enforce the bargain. A promise with no credible remedy is worth less. A

remedy so destructive that using it ruins the asset can also be worth less. Good credit systems have to make enforcement credible without making liquidation the only answer.

The moral language then arrives. Debtors should honour promises. Creditors should not exploit desperation. Savers should not be expropriated. Families should not lose everything after illness. Investors should bear risk. Taxpayers should not rescue gamblers. Every one of those statements can make sense in a particular case, and they can conflict in the same case. Debt is difficult because the loss does not disappear when the moral story changes.

This book gives you a way to see through the slogans. Ask what cash flow services the debt, what date matters, what collateral or legal priority supports it, who holds the opposite asset, which party can change the terms, and what happens if everyone tries to protect themselves at once. Those questions connect mortgages, corporate failures, banking crises and sovereign restructurings without pretending the borrowers are interchangeable.

Once you see debt as a ranked claim on future resources rather than borrowed money, much of finance becomes less mysterious. The promise is the product. The surrounding institutions decide how much that promise is worth.

The Core Ideas

1. The Future Made Spendable

A debt begins with an exchange across time. The lender gives command of resources now. The borrower promises a defined return later. That promise may be written on clay, paper or a database, but its economic job is unchanged: it brings future income into the present.

Surviving commercial records show how early people learnt to formalise the arrangement. A second-millennium BCE tablet from the Assyrian trading

colony at Kanesh records that a silver loan had been repaid and any further claim was void. It lists witnesses and carries seals. The striking feature is not that ancient merchants borrowed. It is that they built evidence strong enough to end the obligation. A debt requires memory, measurement and a rule for saying both you owe and you no longer owe.

Debt differs from a gift because repayment is required. It differs from a sale because the borrower receives resources without permanently surrendering an existing asset. It differs from equity because the lender does not normally own the residual result. If a business borrows £100,000 and turns it into a company worth £1 million, the lender receives the contracted principal and interest, not a share of the extra value. If the business fails, the lender may recover less than promised, but will usually stand ahead of the owners. The bargain caps the lender's upside and gives the lender priority on the downside.

That division makes debt attractive to both sides. A borrower who believes in a project can keep control and most of the gain. A lender does not need to value every possible success. It needs to decide whether repayment is likely and what can be recovered if it is not. Debt converts a messy venture into a narrower question about cash flow, collateral and law. The simplification makes promises easier to compare, pool and trade.

The contract does more than set an amount. It defines dates, currency, interest, priority, security and events that count as failure. These details decide where uncertainty lands. A fixed-rate borrower is protected from rising market rates while the lender carries that risk. A floating-rate loan transfers it back. A mortgage gives the lender a claim over the house. A covenant may let a corporate lender intervene before a payment is missed. A foreign-currency bond leaves the borrower exposed if its own currency falls.

Seen from a balance sheet, the same instrument has opposite signs. The loan is an asset to the lender and a liability to the borrower. The cash transferred at the start may be spent, but the claim remains. Across an economy, chains of such claims link households, firms, banks, funds and

governments. A pension fund calls a government bond an asset. The government calls it debt. Both descriptions are complete.

This is the first condition the rest of the book builds on. Debt creates capacity now by fixing a claim on later. The capacity is real: homes are built, stock is bought, factories open and emergencies are survived. The fixedness is real too. The contract can specify what must be paid, but it cannot specify what the future will make possible. Everything debt achieves, and everything it later breaks, begins in that gap.

2. Interest Prices Time, Risk and Power

Interest is often described as the price of money. That is too vague. Money can be exchanged without interest and held without a loan. Interest is the price attached to a claim across time, and the rate bundles several different judgements into one number.

Start with waiting. A lender gives up the use of resources for a period and normally requires compensation. Add expected inflation: £100 returned next year may buy less than £100 today, so a nominal rate can rise even when the lender's expected real return does not. Add default risk, the possibility that some promised payments never arrive. Add liquidity, because a claim that can be sold tomorrow is more useful than one locked away for ten years. Then add administration, regulation, taxes and profit. The final rate may also contain market power. A borrower with one willing lender pays for the absence of alternatives.

This is why rates form a ladder rather than a single market price.

Governments with strong taxing capacity and deep bond markets can often borrow in their own currencies at low rates. Established companies pay a spread above that benchmark. Young firms, households with thin records and borrowers already under pressure pay more or receive no offer. The rate is not a moral score. It is a forecast made under unequal information and unequal bargaining power.

Compounding makes the calendar matter. If interest is added to principal, future interest is charged on past interest. At 5 per cent, £100 becomes

about £163 after ten years if nothing is paid. The same arithmetic grows savings and debts, which is why compound interest can be praised in an investment advert and condemned in a credit agreement without changing its mechanism. What changes is who owes whom, the rate, the term and whether payments keep pace.

Amortising loans are designed to prevent the balance from growing unchecked. Each instalment covers interest due and repays part of principal. Early in a long mortgage, much of the payment goes to interest because the outstanding balance is still large. Later, more goes to principal. An interest-only loan lowers payments now but leaves the original balance waiting at maturity. A variable-rate loan may begin cheaply and become difficult after a reset. The quoted rate is therefore insufficient. One must also know how it applies through time.

Higher rates do not always produce more lending. Raising the price can change the pool of people willing to borrow and the risks they take. A careful borrower may abandon a project that cannot support the new cost, while a desperate or highly optimistic borrower continues. Lenders may respond by refusing credit rather than charging ever more. The result is credit rationing: applicants willing to pay the stated rate are still denied because price alone cannot solve the information problem.

Interest also shifts income and power. A rate that compensates a pension fund for inflation is not the same social arrangement as a payday loan renewed because a borrower has no cash buffer. Legal caps can prevent exploitation and can also exclude high-cost borrowers from formal credit, pushing some towards worse alternatives. Subsidised rates can widen access and conceal losses that taxpayers later absorb.

There is no universally fair rate waiting to be discovered. There are costs, risks, institutions and bargaining positions that can be examined separately. The useful question is not whether interest is good. It is what the rate pays for, who set the terms and what happens if the forecast inside it proves wrong.

3. Creditworthiness Is a System, Not a Trait

A lender never sees the borrower's future directly. It sees evidence about it. That makes creditworthiness less a personal property than an institutional construction.

The information problem begins before the loan. A borrower knows more about the intended use of funds, effort, hidden obligations and private risks than the lender. Raising the interest rate does not always solve this. A higher rate can worsen the borrower's cash flow and may drive safer applicants away first. Joseph Stiglitz and Andrew Weiss formalised this result: a lender can rationally refuse credit rather than keep raising the price until supply equals demand.

So lending systems build substitutes for knowledge. Household lenders use income, existing commitments, repayment history and deposits. Corporate lenders inspect accounts, contracts, cash flow, assets and management. Sovereign investors study revenue, institutions, currency, reserves, maturity and political capacity. Credit bureaux, company registries, audited accounts, ratings and courts let these judgements travel. The World Bank's credit-reporting principles begin from the same problem, information asymmetry between borrower and lender.

The gain is scale. A merchant who knows every customer can lend through reputation. A national mortgage market cannot. Standard records allow a bank to compare thousands of applicants and let an investor buy a claim on a company across an ocean. They turn a promise from a private relationship into an object that can be priced, pooled and sold.

The cost is that the system measures what it can observe. A person with little borrowing history may look risky because the record is thin, not because repayment would be poor. A model can predict average default accurately while making bad decisions about particular people. Variables that appear neutral can track neighbourhood, wealth or earlier exclusion. Human discretion can repair a mechanical rule and can add prejudice of its own. Better data changes the location of judgement; it does not remove

judgement.

Collateral solves a related problem by changing the consequence of being wrong. A lender may accept uncertainty about income if an asset can be seized and sold. This lowers expected loss and gives the borrower more reason to protect the loan. It also embeds existing ownership into access to new credit. Two founders with identical businesses can face different terms because one owns property that can be pledged and the other does not. Credit can reproduce wealth differences without any lender explicitly setting out to do so.

Enforceability is the missing half of creditworthiness. A borrower may have ample assets, yet a claim is less valuable if ownership is unclear, courts are slow, security cannot be perfected or insolvency rules are unpredictable. Conversely, strong enforcement can make lending cheaper while shifting bargaining power towards creditors. What looks like a market price therefore contains institutional design.

Guarantees shift that design onto another balance sheet. A parent, company group or government promises to pay if the borrower cannot. The original claim looks stronger because another source of payment exists, but the guarantee is useful only if the guarantor remains strong in the same bad conditions that hurt the borrower. Correlated failure is the weakness hidden inside many apparent backstops.

Creditworthiness is therefore produced, not discovered. It combines expected cash flow, information, assets, legal rights and the borrower's alternatives. A good system widens the range of strangers who can trust one another while remaining honest about what its measures miss. A bad one mistakes a score for a person or collateral for proof that no loss can occur.

4. Banks Make Private Promises Scalable

A bank connects two incompatible desires. Borrowers want money for years. Depositors want access on demand. The bank holds long-lived loans and issues short-lived promises, making private credit usable as everyday money.

The familiar story says banks collect deposits and lend them out. That reverses the usual sequence in modern banking. When a bank approves a £10,000 loan, it normally records a £10,000 asset, the borrower's obligation, and a £10,000 deposit liability in the borrower's account. The loan creates the deposit. When principal is repaid, both shrink. Banks create much of the money people use by expanding their balance sheets.

The deposit becomes useful because it can be transferred at par. If the borrower pays a supplier at another bank, the two banks settle between themselves, normally through accounts at the central bank. The customer sees one pound leave and one pound arrive; behind the screen, institutions exchange claims acceptable to one another. This promise of convertibility is what lets deposits issued by competing banks function as a common means of payment rather than as separate private tokens.

This does not mean banks can lend without limit. A bank must expect the loan to be profitable after defaults and costs. It must hold capital capable of absorbing losses, manage liquidity, obtain funding, settle payments with other banks, meet regulation and find willing creditworthy borrowers. If the new deposit is transferred to another bank, the originating bank must settle the outflow using reserves or other liquid assets and may need to replace the funding. Lending creates deposits, but it also creates a larger institution that must remain solvent and able to pay.

Capital and liquidity solve different problems. Capital is the owners' cushion: assets can lose value by that amount before creditors bear the loss. Liquidity is the ability to meet payments when due. A bank can be solvent in the long run yet fail today if it cannot turn assets into cash without ruinous discounts. The reverse is possible: liquid for a while and insolvent

underneath. Confusing the two leads to bad rescues and bad diagnoses.

The structure is fragile because bank assets and liabilities mature at different speeds. A thirty-year mortgage cannot be called in merely because depositors want their money. If many depositors withdraw at once, the bank may have to sell assets, borrow from other institutions or use central-bank facilities. Deposit insurance reduces the reason for households to run. Central banks can lend against acceptable collateral. Regulation limits risk. None makes losses impossible; each prevents a temporary scramble for cash from needlessly destroying a sound loan book.

Banks also assess and monitor borrowers. A household rarely issues a bond because investors cannot efficiently inspect one salary, one home and one repayment record. A bank bundles that work. It makes many loans, diversifies some idiosyncratic risk and funds itself with standard liabilities. The bank's own credibility then stands between the depositor and thousands of borrowers the depositor never sees.

Once loans exist, they may be sold, syndicated or securitised. This can spread risk and free capacity for new lending. The trade-off is a weaker link between the person who approves a loan and the person who ultimately bears the loss. Standards depend on contracts, information and incentives along the chain. A promise does not become safe because it has been sliced into securities.

Banks make debt scalable by transforming private promises into liquid claims. That transformation supports payments, investment and home ownership. It also concentrates confidence. When people cease to trust one borrower, one loan may fail. When they cease to trust the institution that stands behind thousands of loans, the machinery of money and the machinery of debt begin to fail together.

5. Different Borrowers Fail Differently

A mortgage, a corporate bond and a government bond share the same grammar: money now, promised payment later. Their failure modes are different enough that treating them as one borrower creates more confusion than insight.

Households service debt mainly from labour income, pensions, benefits or small-business earnings. Those cash flows can stop through unemployment, illness or family change, while much household wealth is tied up in assets that cannot pay this month's bill without being sold. A mortgage improves the lender's recovery position by attaching the claim to a house, but the household still lives through the loss. Insolvency law in many systems therefore protects some minimum of future participation rather than treating a person as a company to be liquidated. The details vary sharply by jurisdiction.

Companies are legal pools of assets and contracts organised to produce cash. Debt lets owners expand without surrendering as much control or upside as an equity issue would. In return, lenders can demand fixed payments, information, covenants and priority. A useful business can therefore fail financially before it fails economically. If a company needs refinancing on Friday and lenders refuse, a profitable order book due next month may not save it.

Priority shapes the bargain before insolvency arrives. Security gives creditors rights over specified assets. Seniority changes who absorbs losses first. Covenants restrict actions that might move value away from lenders, such as taking on more debt or paying large distributions. Equity sits behind debt because shareholders own what remains after contractual claims. That residual position gives them more upside and makes their cushion the first one available to absorb ordinary business losses.

Governments cannot be placed into the same insolvency box. A sovereign has taxing power, can change spending, may issue debt continuously and cannot be wound up by a bankruptcy court. Some governments also borrow

mainly in a currency their own central bank issues, while others owe substantial amounts in foreign currency or operate under monetary arrangements that constrain issuance. Those institutional differences change the route through stress.

A state that issues its own currency can have more capacity to meet nominal payments in that currency, subject to the legal and political framework. That does not abolish scarcity. Creating more currency cannot create imported fuel, nurses, machinery or productive capacity. If nominal claims outrun the economy's ability to supply real goods and services, adjustment can appear through inflation, exchange rates, financial repression, taxation or spending cuts rather than formal default. A foreign-currency debt is harsher in another way: the state cannot create the dollars or euros named in the contract.

Public debt is generally rolled over. Maturing bonds are replaced with new bonds while revenues cover interest and any desired reduction in principal. Sustainability therefore depends on a system, not one ratio: interest costs, growth, primary balances, maturity dates, currency composition, investor base, reserves, institutions and the credibility of future policy. A large stock with long maturities and stable domestic demand can behave differently from a smaller stock that must be refinanced next month in foreign currency.

When a sovereign cannot pay as contracted, there is no single global bankruptcy court that can gather every claim and impose one plan. Restructuring may involve domestic law, foreign-law bonds, banks, official lenders and multilateral institutions. Collective action clauses in many international bonds help by allowing specified majorities to bind minorities to amended terms, but they do not erase politics, differing creditor interests or the problem of deciding how much relief is enough.

The same debt ratio can therefore describe three unrelated dangers. A household may be unable to make the next payment. A company may be viable but unable to refinance. A state may have a long-run fiscal problem, a short-run foreign-currency shortage, a confidence crisis, or some combination. The correct analysis begins by asking how this borrower earns

or commands the unit in which the promise must be paid, and what legal process follows if it cannot.

6. Leverage Turns Small Moves into Large Ones

Leverage is the use of debt to control an asset larger than one's own capital. It magnifies gains because the borrower keeps the value left after the debt is paid. It magnifies losses for the same reason.

Suppose a buyer purchases a £100 asset with £10 of equity and £90 of debt. If the asset rises to £110, the owner's equity doubles from £10 to £20 before financing costs. If it falls to £90, the equity is gone. A 10 per cent move in the asset produced a 100 per cent move in the owner's stake. The arithmetic is not a side effect. It is why leverage is used.

During good times the result can feed on itself. Rising property or security prices make collateral appear more valuable. Lenders can advance more against it. The additional credit creates more demand, which lifts prices again. Low recorded defaults support looser standards and smaller risk premiums. Borrowers and lenders may each appear prudent when judged against recent data because the expanding credit system is helping create the conditions that validate its own optimism.

The loop reverses under pressure. Falling prices reduce collateral values and increase loan-to-value ratios. Lenders demand more security, refuse refinancing or sell pledged assets. Borrowers sell to meet payments. Those sales lower market prices, weakening other balance sheets and prompting further sales. The collateral that protected each individual lender becomes the channel through which many lenders act alike.

Debt service provides another route. A fixed-rate borrower may be protected until maturity, while a floating-rate borrower feels higher rates quickly. A company that must refinance can face a large jump even if its current coupon has not changed. A household whose monthly payment rises may cut consumption. A government devotes more revenue to interest as old low-cost debt is replaced. The debt-service ratio, payments of interest and principal relative to income, often reveals pressure that a stock of debt alone

hides.

Irving Fisher described a debt-deflation process in which distress selling lowers prices, raises the real burden of nominal debts and creates more distress. Hyman Minsky later stressed how long periods of stability encourage financing structures that depend on continued refinancing and rising values. These are not laws that make every credit expansion a crisis. They are mechanisms explaining why calm conditions can alter behaviour in ways that make the next shock more damaging.

The financial crisis of 2007 to 2009 showed several versions at once. Mortgage credit expanded alongside rising house prices. Loans were pooled into securities and financed through highly leveraged institutions and short-term markets. When house prices fell and mortgage losses rose, securities were downgraded, funding withdrew and firms sold assets or cut lending. Official inquiries found failures across regulation, governance, risk management, borrowing and accountability. Reducing the event to reckless households or one faulty instrument misses the system that connected them.

Leverage is therefore less a number than a relationship among debt, asset values, income and time. Ten times leverage may be stable against predictable cash flows and dangerous against an asset that must be sold tomorrow. The crucial question is what shock erases the equity cushion, and what the borrower or lender is forced to do next. Crisis begins when the answer is the same across too many balance sheets.

7. A Promise Needs an Exit

Debt needs credible enforcement or the promise is cheap talk. A system that cannot revise an impossible promise is brittle. Both conditions have to be true at once.

Suppose a borrower owes £100 and, after the underlying project fails, can produce only £60. The £40 loss already exists in economic terms. Default does not create it and accounting cannot remove it. What remains undecided is allocation: which creditor loses how much, whether assets are

sold, whether payment is delayed, whether owners keep anything, and whether the borrower has a viable future after the process.

This is why insolvency procedures are collective. If every creditor races to seize the easiest asset, a working company can be dismantled even when it would be worth more kept together. A stay on individual enforcement can stop the race while claims are identified, ranked and negotiated. The process may end in restructuring or liquidation. The important design choice is that enforcement is channelled through a procedure rather than reduced to whoever reaches the door first.

Household insolvency adds a different judgement. A person cannot be sold as the residual asset of the estate. Systems therefore decide which property is protected, which debts can be discharged, how long repayment obligations continue and which claims survive. Those choices affect both sides before default. Greater protection can preserve a debtor's capacity to work and consume, while weaker creditor recovery can raise prices or restrict future lending. There is no neutral setting.

Restructuring preserves the borrower by rewriting the claim. Principal can be reduced, coupons cut, maturities extended, missed payments capitalised, or debt exchanged for new securities or equity. Corporate creditors can sometimes accept less because a functioning company will repay more than a dismantled one. Sovereign creditors face an additional problem: the debtor must continue governing, and no universal court can impose one settlement across all claims.

Other forms of adjustment hide the rewrite. Inflation reduces the real value of fixed nominal debt even when every pound is paid. Currency depreciation increases the local burden of foreign-currency debt. Bailouts move claims onto a stronger balance sheet, often the state, when authorities judge that disorderly failure would damage payment, credit or the wider economy. Each method protects some promises by weakening others.

The politics therefore cannot be separated from the economics. Foreclosure protects security rights and can impose severe social costs. A bank rescue

can protect depositors and other institutions while appearing to reward managers or investors who took the original risk. Sovereign austerity can preserve debt service while reducing public services and growth. Debt relief can restore activity while imposing losses on pension funds, banks or taxpayers elsewhere. Someone always holds the asset that another person wants forgiven.

Early written societies already faced versions of this conflict. Mesopotamian rulers sometimes cancelled particular personal obligations and released people from debt bondage. Modern bankruptcy law makes loss allocation more routine and less dependent on a ruler's decree, but it does not settle the moral dispute. The hard question remains how much enforcement is needed to make promises credible without allowing yesterday's contract to destroy tomorrow's capacity to produce.

That question repays the beginning of the book. Debt makes the future spendable because a claim on that future has force. The stronger and more standardised that force becomes, the more credit can scale. Yet the future will sometimes fail. Resolution rules are therefore part of the original credit technology: lenders price expected recovery, borrowers price the possibility of relief, and investors care about priority and amendment rights before a crisis exists.

A durable debt system does not promise that every debt will be paid in full. It promises something harder: that repayment will be enforced when it can be, losses will be recognised when it cannot, and the route between those states will be predictable enough for strangers to lend again.

How It Actually Works

The contract

Take a £250,000 repayment mortgage at 5 per cent for thirty years. Ignoring fees, the monthly payment is about £1,342. If the rate never changes and every payment is made, the borrower will return the £250,000 principal and about £233,000 in interest over 360 months.

That comparison makes interest look like the price of the house twice over, but it hides the exchange being purchased. The borrower receives command of £250,000 on the first day and repays it gradually across three decades. The lender gives up alternative uses of the money, carries default and inflation risk, and waits. A pound paid in year twenty-nine is not economically equal to a pound advanced today.

The mortgage deed and loan agreement turn the exchange into enforceable instructions. They identify the borrower, property, principal, rate, repayment method, maturity and conditions of default. The property secures the debt. The borrower owns it, lives in it and receives any rise in value, but cannot give the lender's claim an inferior position without consent. If payments fail and the legal process is followed, the lender can force a sale and apply the proceeds to the loan.

The repayment schedule is built by amortisation. Interest is calculated on the outstanding balance; the rest of each payment reduces principal. In the first month of the example, interest is about £1,042 and principal about £300. After many years, the pattern reverses because the balance has fallen. The equal monthly payment conceals a changing composition.

The contract also allocates rate risk. With a fixed rate, the borrower knows the payment for the fixed period and the lender bears the cost if market rates rise. With a floating rate, the payment changes with an agreed benchmark and margin. A short fixed period followed by refinancing leaves a future date at which the price can reset. The thirty-year label therefore does not mean thirty years of unchanged terms.

The decision

Before the loan exists, the lender underwrites it. For a mortgage, this usually means checking income, employment, existing debts, credit history, deposit and property value. Two ratios organise much of the judgement. A debt-to-income or debt-service measure asks whether earnings can support payments. A loan-to-value ratio asks how much collateral value stands beneath the loan. Neither answers the whole question. Income can vanish; property prices can fall; a low ratio can be offset by a payment that is already unaffordable.

The lender also tests documents and incentives. Is the income stable or temporary? Is the valuation independent? Has the borrower supplied a meaningful deposit, so that the first fall in price is absorbed by their equity? Are the payments calculated at a rate above the opening offer? The purpose is not to predict a single future. It is to see how many plausible futures the contract can survive.

Price follows the decision. The lender begins with a reference rate reflecting the currency and term, then adds a margin for expected loss, capital, funding, administration and profit. Fees may move costs outside the headline rate, which is why consumer rules require broader measures such as annual percentage rates. A low opening payment can coexist with a high lifetime cost if the balance amortises slowly, fees are added or the rate resets.

A rejected application shows that interest is not enough to clear the market. The lender may judge that a higher rate would worsen the risk by increasing the payment or attracting applicants with fewer alternatives. It may instead require more collateral, a guarantor, a shorter term or no loan at all.

The bank's balance sheet

When a bank grants the mortgage, it records the loan as an asset and credits a deposit account. If the house seller uses another bank, the deposit moves and the originating bank settles with the recipient bank. The mortgage remains on the first bank's books unless it is sold.

The bank must finance and support that asset. Customer deposits provide a large part of bank funding, but the bank may also borrow in wholesale markets or issue bonds. It holds liquid assets to meet outflows and capital to absorb losses. Suppose a bank has £100 of assets funded by £92 of deposits and other debt plus £8 of equity. If assets lose £5, the bank remains solvent with £3 of equity. If they lose £10, liabilities exceed assets. The depositors did not cause the loss, but their claims now exceed what the bank owns.

This is why bank capital is not cash kept in a vault. It is the difference between assets and liabilities, supplied by owners and retained profits. Liquidity is separate. A mortgage may be sound and still impossible to sell quickly at full value. A bank facing sudden withdrawals needs cash or assets accepted by other institutions. Central banks can lend against collateral to bridge a liquidity shortage; they cannot make a bad loan worth its face value without someone accepting the loss.

Regulation tries to prevent one bank's judgement from threatening the payment system. Capital requirements rise with measured risk. Liquidity rules require buffers against outflows. Supervisors examine underwriting, concentration and stress. Deposit insurance reassures small depositors that they do not need to be first out of the door. Each rule changes incentives and each can be evaded or miscalibrated. The safety of the system still depends on the quality of assets and the honesty of loss recognition.

The payment

After origination, debt becomes a sequence of ordinary transfers. A servicer calculates what is due, collects it, divides it between interest and principal, updates the balance and reports conduct to the lender or investors. The machinery is dull by design. A trusted debt system turns a thirty-year promise into 360 small events that can be checked.

Borrowers may repay early, but the right and cost depend on the contract. A floating-rate loan may allow prepayment without charge. A fixed-rate lender may demand compensation because it funded or hedged an expected

stream that has now ended. Corporate borrowers negotiate call provisions; bond issuers may be barred from redeeming debt cheaply when rates fall. Flexibility has a price because it gives one side the option to change the timetable.

A missed payment is not always immediate legal default. Contracts may include grace periods, arrears procedures and thresholds. The lender must decide whether the problem is temporary, strategic or permanent. Forbearance can preserve value when a borrower has suffered a short interruption. Repeated capitalisation of unpaid interest can conceal that the balance is growing faster than the borrower can service it.

Default clauses can reach beyond non-payment. A false representation, insolvency filing, covenant breach or default on another major debt may allow acceleration, making the full balance due. Cross-default provisions connect contracts that were priced separately. One failure can therefore bring forward many payment dates at once, turning a manageable long-term problem into an immediate demand for cash.

From loan to security

The bank may keep the mortgage and collect payments for decades. It may also sell it into a pool that issues mortgage-backed securities. Investors then receive cash generated by thousands of borrowers, after servicing costs and according to a contractual order. Some securities take early losses and others are paid first. This tranching can create claims with different risk from the same pool, but it cannot improve the borrowers' combined ability to pay.

Securitisation separates several jobs. One firm may find the borrower, another verify the application, another fund the loan, another service payments and another hold the final risk. Specialisation can lower costs and widen funding, while the separation can scatter responsibility. If the originator is paid when the loan is sold, weak underwriting may hurt an investor who never met the borrower. The cure is not proximity by itself. It is an incentive and information chain in which each party bears consequences for the claims it creates.

Bonds perform a related job for larger borrowers. A bond divides a large debt into standard units with a principal amount, maturity and coupon. After issue, investors can buy and sell the claim. Its market price moves even if the promised payments do not. When prevailing rates rise, an old low-coupon bond becomes less attractive and its price falls until its yield competes with new debt. A holder who keeps it to maturity and receives every payment may still recover the contractual amount, but a holder forced to sell records the market loss.

Yield is therefore the return implied by the price and expected payments, not another word for coupon. Credit spreads compare that yield with a lower-risk benchmark of similar maturity. A widening spread can signal greater expected default, lower liquidity or a general retreat from risk. It also raises the cost of issuing replacement debt.

Firms and the queue of claims

A company can borrow through a bank loan, a revolving credit facility, private credit or bonds. The choice depends on size, information, flexibility and market access. A bank can negotiate bespoke covenants and monitor closely. A bond can raise large sums from dispersed investors but is less easily amended.

The lender studies cash flow rather than the product's charm. Earnings before interest may look strong while working capital consumes cash. A factory can be valuable but difficult to sell. A seasonal company may need a revolving facility that rises before stock is sold and falls after customers pay. The contract is designed around the pattern, with limits on leverage, interest coverage, dividends or further security.

Priority matters before default because it changes behaviour and price. Secured debt has a claim on specified assets. Senior unsecured debt relies on the general company but ranks ahead of subordinated debt and equity. Owners receive what remains after everyone with a superior claim. This waterfall explains why shares can become worthless while bonds still trade near full value, and why the same company can issue different debts at

different rates.

A covenant breach may occur while payments continue. That is deliberate. It gives lenders a chance to renegotiate, demand a fee, restrict distributions, require more collateral or accelerate the loan before the remaining value disappears. Waiving a breach can preserve a useful firm; enforcing it can prevent owners from gambling with creditors' money. The contract gives the lender a hand near the steering wheel without making it the owner during normal times.

States and rolling promises

Governments issue bills and bonds with different maturities, currencies and payment structures. A maturity profile is therefore more informative than a single debt total. It shows when old promises come due and how much must be paid from revenue, reserves or new borrowing.

Most states do not save enough cash to retire every maturing bond. They refinance. That is ordinary rather than deceptive because governments are continuing institutions and investors buy the bonds knowing new issuance will follow. The danger is concentration. If a large share matures during a loss of market confidence, the state can face a financing crisis even when its long-run tax base remains substantial.

Debt sustainability is a joint problem of arithmetic and institutions. Interest costs, growth and the primary budget balance matter, but so do maturity, currency, reserves, investor base and the credibility of policy. A ratio can warn without diagnosing. The International Monetary Fund's debt-sustainability frameworks therefore examine projected financing needs and stress scenarios rather than treating one debt-to-GDP number as a universal threshold.

Currency determines one key branch of the failure tree. A government that borrows in a currency it issues may have greater capacity to ensure nominal payment, depending on its monetary arrangements. The real cost can then appear through inflation, currency depreciation or policies that transfer purchasing power from holders of money and bonds. Foreign-currency debt

removes that nominal option. A fall in the domestic currency can increase the local resources required to obtain the promised dollars or euros.

If restructuring becomes necessary, the state cannot enter a single worldwide bankruptcy process. Domestic-law instruments may be changed under local legislation, while foreign-law bonds depend on their contracts and governing courts. Official creditors and private investors may have different procedures and objectives. Collective action clauses can let defined majorities amend payment terms for bondholders and reduce holdout problems. They are coordination devices, not a substitute for deciding who bears the loss.

The boom

Credit expands when lenders expect good repayment and borrowers see profitable uses. At first, the optimism may be correct. New homes meet demand, firms invest and tax revenues rise. Defaults stay low. Collateral values increase. Because recent loans perform well, models report lower risk and investors accept narrower spreads.

Then measurement begins to follow the boom it is meant to assess. A rising house price lowers the measured loan-to-value ratio on an old mortgage. Easy refinancing prevents missed payments. Strong asset markets support bank capital and investor returns. Lenders can loosen terms without immediate loss because the expansion provides borrowers with exits. A weak loan may look sound as long as it can be refinanced or repaid by selling into a rising market.

Competition adds pressure. A cautious bank that refuses the business loses market share while rivals report profits. Investors searching for yield accept more leverage, weaker covenants or complicated securities. Borrowers interpret availability as evidence that the project is safe. No participant needs to believe prices can rise for ever. Many need only believe they can leave before others do.

The break

The trigger may be higher rates, lower income, fraud, war, a commodity shock or a fall in asset prices. What matters is the balance-sheet response. A borrower misses a payment or fails a covenant. The lender increases provisions and may cut new credit. Collateral is revalued. Investors demand a higher yield. Refinancing that looked routine becomes expensive or unavailable.

If assets are financed with short-term debt, lenders can refuse renewal. The borrower must find cash or sell. A forced sale lowers market prices, causing mark-to-market losses and margin calls elsewhere. Institutions trying individually to become safer can make the system less safe. They sell the same assets, hoard liquidity and stop lending to borrowers whose projects have not changed.

Households cut consumption to protect mortgage payments. Firms cancel investment and employment. Banks preserve capital by shrinking assets. Governments collect less tax and spend more on support while their own borrowing costs may rise. A financial contract has become a macroeconomic feedback loop.

The 2007 to 2009 crisis followed this pattern through mortgage credit, securitisation, leverage and fragile funding. Rising house prices had supported refinancing and hidden loan weakness. When prices fell, mortgage losses damaged securities and the institutions holding or financing them. Funding markets withdrew, assets were sold and credit contracted. The crisis had many causes, including failures of regulation, governance, underwriting and risk management. Debt made the separate failures contagious because each balance sheet was a claim on another.

The repair

A debt crisis cannot be repaired until the problem is named correctly. A borrower may be illiquid, unable to produce cash at the required date despite owning enough value, or insolvent, with claims worth more than the assets and future cash flows available to meet them. Confusing the two wastes time and often money.

Liquidity support buys time. A central bank can lend against acceptable collateral to a sound bank facing temporary outflows. A lender can extend a maturity for a company waiting for receivables. Forbearance can bridge a household through a short income interruption. These measures fail when the gap is permanent. Lending another £10 to someone already £40 short can postpone recognition while increasing the final claim.

Insolvency needs loss allocation. Households may sell assets, modify terms or enter a formal insolvency process. Companies may exchange debt for equity, write down claims, sell divisions or liquidate. Banks can be recapitalised, transferred or resolved while authorities try to preserve deposits and critical functions. Sovereigns can alter principal, coupons and maturities, often alongside official financing intended to keep essential payments functioning during negotiation.

Priority matters because repair is rarely a flat percentage cut. Secured claims may attach to particular assets. Senior creditors may be paid before junior ones. Deposit protection can move small bank customers ahead of ordinary loss-bearing. Sovereign restructurings can involve different treatment across instruments and creditor groups. These choices determine incentives long before the crisis because market participants price where they expect to stand in the queue.

There is no repair that recreates missing resources. A write-down hits creditors. Inflation reduces the real value of nominal claims. Tax-funded support shifts risk to the public balance sheet. Foreclosure moves a house from borrower to lender or buyer and can affect surrounding prices. Spending cuts protect public debt service by reducing something else. The

analytical task is therefore to compare the damage created by each allocation, rather than search for an option in which nobody pays.

The best resolution systems aim to preserve value that still exists. They stop destructive creditor races, identify losses promptly, keep useful operations running where possible and return viable borrowers to ordinary economic life. Severity can support trust, but predictability usually matters more than theatre. Credit works best when the rules for a broken promise are known while the promise is still being made.

How we know

Debt leaves unusually rich records because promises need evidence. Loan contracts, bank balance sheets, bond registers, court files and public budgets reveal amounts, dates, currencies and defaults. Yet the totals still require care. Gross debt can count claims that offset inside a sector. Face value differs from market value. Guarantees and other contingent obligations may remain invisible until stress. Informal credit and arrears can be poorly measured.

The harder problem is causation. High debt can weaken spending and investment, while weak income can itself cause borrowing. Credit booms can fund productive assets or inflate collateral prices, and the difference may be obvious only afterwards. Researchers therefore combine contract data, balance sheets, historical episodes, institutional changes and quasi-experimental evidence. The most reliable lessons are structural rather than numerical thresholds: debt service matters alongside debt stocks; short maturities create refinancing risk; leverage magnifies asset-price movements; collateral links borrowing capacity to prices; foreign-currency debt adds exchange-rate exposure; and legal priority changes recovery. No single ratio captures the system.

What People Get Wrong

"The amount owed tells you how dangerous the debt is"

The same £100 of debt can be trivial or dangerous depending on who owes it, when it falls due and what cash flow stands behind it. A thirty-year fixed mortgage, an overnight loan and a foreign-currency bond with one month to maturity do not carry the same fragility even if the headline amount is identical.

Stocks still matter. Large obligations can create large future claims. The mistake is treating the stock as the diagnosis. Debt service shows the payment flow; maturity shows the weak dates; currency shows what unit must be obtained; collateral and priority show recovery; assets and income show capacity. Netting can matter for some balance-sheet questions, though gross claims still matter when different parties owe each other on different dates.

This is why simple debt-to-income or debt-to-GDP thresholds so often disappoint. They compress away the mechanism. A useful ratio starts a question. It does not finish one.

"Interest is pure profit"

The gross interest received by a lender is not the same as profit. It must cover funding, expected defaults, administration, capital, liquidity, regulation and taxes before any return remains. Inflation can reduce the real value of the principal. A bond yielding 6 per cent may lose value if market rates rise, and a loan priced at 20 per cent may still be unprofitable if collection is costly and losses are frequent. Lenders also price portfolios rather than isolated stories. Ten loans may carry the same rate even though one will fail, because nobody knows in advance which one. The nine successful borrowers partly pay for the expected loss on the tenth. Insurance works by a related logic, except debt adds time, collection and the possibility that losses rise together in a recession.

None of this proves a rate is fair. Market power, opaque fees and desperation can produce exploitative terms. The correction removes a bad shortcut. A high rate can reflect high costs, abuse or both. To judge it, separate the components rather than treating the headline percentage as either theft or earned reward.

Rates also differ because contracts give borrowers different options. A loan that can be repaid early without penalty gives the borrower valuable flexibility and can leave the lender reinvesting at a worse rate. A long fixed rate shifts more interest-rate risk to the lender than a floating rate. The percentage is the surface; the contract decides which risks sit underneath it.

"Banks lend out deposits"

A bank does not normally wait for one customer's savings and hand the same money to another customer. When it grants a loan, it records an asset and creates a matching deposit. The deposit may then move to another bank, forcing settlement and funding adjustments, but the sequence begins with the credit decision.

The warehouse story persists because funding still matters after the loan is made. A bank that loses deposits must replace them, sell assets or shrink. Deposits influence the cost and stability of the balance sheet even though they are not a fixed pile rationed among borrowers. Textbook explanations often compress this later funding problem into an inaccurate account of origination.

The opposite myth says banks can create limitless money. They cannot. Capital, liquidity, funding costs, regulation, payment settlement, expected losses and demand constrain them. This distinction explains why supplying more reserves may not produce lending when banks lack capital, borrowers lack income or projects do not justify the risk. Bank credit is created by balance sheets, not by a warehouse of idle cash.

The distinction also matters after a loan is spent. If the new deposit moves to another bank, the originating bank loses a deposit liability and must settle with the receiving bank using reserves or other funding. Lending can create

the deposit at origination without freeing the bank from the later need to fund and settle the position.

"Collateral makes a loan safe"

Collateral lowers expected loss by giving a lender a claim on an asset. It does not make the asset's sale price fixed, guarantee legal control or prevent many lenders from depending on the same market.

During a boom, rising collateral values can support larger loans. When prices fall, the same mechanism reverses. Loan-to-value ratios worsen, margin calls appear and borrowers may be forced to sell. If many do so together, sales depress the price of the assets lenders expected to protect them. Nobuhiro Kiyotaki and John Moore formalised one version of this feedback between asset prices and borrowing capacity.

Collateral therefore changes who loses first and how quickly, rather than making loss impossible. The safest-looking security can become a transmission channel when everyone relies on it at once.

"A government is a household with a flag"

A household and a government both face budgets, credibility constraints and consequences for borrowing too much. The analogy stops there.

A household has a finite working life, cannot tax its neighbours, cannot issue legal tender and can enter personal insolvency under domestic law. A sovereign is a continuing political institution with taxation powers, a large asset base and, in some monetary systems, influence over the currency in which it borrows. A state also cannot be liquidated and distributed to creditors as a household estate can.

None of this means public borrowing is free. Domestic-currency issuance can move adjustment into inflation or exchange rates. Foreign-currency debt can create an immediate payment constraint. Rising interest costs can crowd out other spending. The correction matters because importing household morality into public finance hides the mechanisms that determine whether a state's debt is sustainable and how failure occurs.

"The 2008 crisis was caused by reckless homebuyers"

Some borrowers misrepresented income, took unaffordable loans or speculated on rising prices. That is part of the record, not the whole causal account. Mortgage originators weakened standards; securities transmitted and obscured risk; rating and risk models failed; financial institutions carried high leverage and fragile short-term funding; regulators missed or tolerated dangerous structures; investors demanded assets that appeared safe and yielded more.

The household story became persuasive because the borrower signed the visible contract and foreclosure supplied a recognisable failure. The less visible contracts sat upstream: broker commissions, warehouse lines, securitisation agreements, credit protection and funding arrangements. Moral blame followed the document people could see, while the institutions that designed and multiplied the exposure appeared technical.

Rising house prices made weak loans look sound because borrowers could refinance or sell. Falling prices removed that exit and damaged institutions linked through funding and derivatives. Blaming the last household in the chain leaves the machinery intact. A crisis is systemic when individually local failures are connected by contracts, leverage and common responses.

"Default makes the debt disappear"

Default is the failure to perform the promise, not the cancellation of every consequence. The claim may remain enforceable. Collateral may be seized, wages attached where law permits, a company reorganised or a state excluded from markets. Creditors record losses; guarantors may be called; insurers and taxpayers may inherit claims. Accounting language adds confusion. A lender may write a debt down because recovery is doubtful, write it off for reporting purposes, sell it to a collector or forgive it legally. These are different events. The borrower can still owe after the creditor has recognised an accounting loss, and a discharged borrower may face tax, reputation or access consequences even after collection ends.

Even formal discharge allocates rather than erases loss. A creditor receives less, owners lose equity, public support absorbs costs or future borrowing becomes dearer. The useful question is where the loss goes and whether the procedure preserves more value than uncoordinated collection. Default is often treated as an offence against the system. In a functioning debt system, rules for default are part of the architecture that makes lending possible in the first place.

This is why recovery rates matter to pricing before default. Two loans with the same probability of missed payment can have different expected losses if one is secured by saleable assets and the other is not. Default risk is therefore a combination of the chance of failure and what remains recoverable afterwards.

Use It

Read both balance sheets

Every debt story has at least two ledgers. The borrower's liability is the lender's asset, and a proposal that improves one side may weaken the other. Debt forgiveness helps the borrower and imposes a loss on whoever holds the claim. Higher interest can support a saver or pension fund and raises the borrower's payment. A bank deposit feels like cash to its owner and remains a debt of the bank.

This lens prevents arguments from ending at the most visible balance sheet. When a company says it has reduced debt by selling assets, ask who bought them and how the sale changed future income. When a government guarantees bank liabilities, ask which private promise moved onto the public balance sheet. When a pension fund demands full sovereign repayment, remember that the creditor may represent ordinary retirees rather than a single financier. The second ledger does not settle the moral question. It reveals where the proposed answer sends the claim.

Then ask what the creditor needs from the asset. A bank, pension fund and leveraged hedge fund can own the same bond and respond differently to the

same fall in price. The holder matters because its own liabilities decide whether it can wait or must sell.

Ask what cash flow pays it

An asset value can distract from the payment mechanism. A house does not service its mortgage unless it produces rent or is sold. A profitable-looking company can miss interest because customers have not paid. A state with valuable land cannot meet a foreign-currency coupon without revenue, reserves or market access.

Start with the scheduled cash demand: interest, principal, fees and collateral calls. Then identify the income expected to meet it, the variability of that income and the margin left after necessary spending. A debt can be large relative to assets and manageable relative to reliable cash flow. It can also be well secured and already unaffordable.

This lens is especially useful when a borrower plans to refinance rather than repay from operations. Refinancing is a cash-flow source supplied by a future lender. Ask what will persuade that lender and what happens if rates, prices or appetite change. A plan that works only while credit remains easy contains a hidden assumption about the market, not a repayment mechanism.

Find the weak date

Debt problems often arrive on a calendar. The danger may be a floating-rate reset, a bond maturity, the end of an interest-only period, a covenant test or the expiry of a government guarantee. Until that date, a borrower can look healthy because the old contract still carries a low rate or delayed principal.

Map the dates rather than staring at the total. How much debt matures in each year? Which payments depend on one customer, budget decision or refinancing window? Can maturities be spread, fixed or extended before stress? A borrower with long, fixed-rate funding has time to adapt. One funded overnight can fail between Friday and Monday even if its long-term assets remain valuable.

The same method improves interpretation of higher interest rates. The full effect does not land at once. Borrowers with floating debt feel it quickly; fixed-rate borrowers feel it when contracts reset or mature. Banks and governments can carry low-cost legacy debt for years while new borrowing becomes expensive. The weak date tells you when a change in market price becomes a change in cash paid.

Some weak dates are triggered rather than scheduled. A covenant breach can accelerate a loan, a margin call can require collateral immediately, and a ratings downgrade can close a refinancing route. The calendar includes every event that can bring the promise forward.

Follow the collateral loop

Collateral is often presented as a static cushion. In a credit system, its price and the credit available against it can move together. More lending raises demand for houses, land or securities. Higher prices permit larger loans. The larger loans support more demand. Each lender sees an asset with a recent market value; the system creates part of that value through the willingness to lend.

To use the lens, ask who values the collateral, how quickly it can be sold, what haircut applies and whether other borrowers have pledged similar assets. Then ask what a fall in value forces. Does the borrower post more security, repay, sell or breach a covenant? Do many institutions face the same instruction?

The dangerous step is rarely the first loss. It is the forced response that changes prices for everyone else. A margin call on one fund may be private. Many funds selling the same securities create a market event. A wave of foreclosures can lower local house prices and weaken mortgages that were current. Follow the loop until you reach the party with enough time, capital or public authority to stop forced sales.

Identify who can rewrite the contract

Every debt contains an amendment map, even when the borrower expects never to use it. A mortgage may permit forbearance or early repayment. A corporate loan may let a majority of lenders waive a covenant. A bond indenture may require specified votes to alter payment terms. Insolvency law can override parts of the private bargain. Sovereign bonds may contain collective action clauses.

Ask who has the power to change amount, timing, priority or enforcement, and under what threshold. This often matters more in stress than the opening interest rate. A contract that cannot be amended may look strong and force a value-destroying default. A contract that can be rewritten too easily may be expensive from the first day. Flexibility is part of the price.

The limits

These lenses do not turn debt into a formula. Cash flows are forecasts, collateral prices can be manipulated and legal rights depend on institutions willing to enforce them. A balance sheet can omit guarantees, pensions, derivatives or informal obligations. A borrower may choose not to pay despite having resources, or continue paying at a social cost that no financial ratio records.

Debt analysis also cannot settle distribution by itself. A restructuring that maximises total recovery may still protect wealthy creditors over vulnerable workers. A strict bankruptcy rule may lower future interest rates and impose intolerable hardship in the present. Public borrowing may finance productive infrastructure, patronage or both. The contract tells you who has a claim; it does not tell you which claim deserves priority.

Nor is less debt always safer. Replacing debt with equity can spread losses and make funding more expensive or scarce. Banning high-cost credit can prevent abuse and leave emergencies unfunded. Paying down public debt can improve fiscal room and remove safe assets used by banks and pensions. The right comparison is between complete arrangements, including what disappears when the debt does.

The one thing to keep

Keep the queue of claims.

Debt becomes confusing when attention stays on the borrower. Turn the instrument around. Somebody owns the promise. That person or institution has a place in a queue, a date at which payment is due, evidence supporting the claim and a set of remedies if payment fails. Once you can see those four things, the interest rate and headline debt total stop dominating the picture.

The queue explains why a bank deposit can feel like cash while remaining a bank liability, why a secured lender may recover when shareholders lose everything, why a government can keep rolling bonds for decades, and why a crisis turns into politics the moment all promises cannot be honoured together. It also explains why bankruptcy and restructuring belong inside the idea of debt rather than outside it. They are rules for the queue when the future provides less than the contracts demand.

Debt makes time tradable by giving promises force. The permanent question is what kind of force, against whom, in what order, and with what exit when reality refuses to pay in full.

Terms

Principal. The amount originally borrowed or the outstanding balance still owed, excluding future interest. Repaying principal reduces the debt itself rather than paying only for its use. The distinction matters in every repayment schedule.

Interest. Payment for a claim across time. It may compensate for waiting, inflation, default risk, illiquidity, costs and market power, depending on the contract. The rate compresses those elements into one figure.

Compound interest. Interest calculated on principal plus previously accumulated interest. Compounding accelerates growth when unpaid interest is added to the balance rather than settled. Frequency and timing

change the final amount.

Nominal rate. The stated interest rate before adjusting for inflation. A 5 per cent nominal return with 3 per cent inflation delivers roughly 2 per cent in real terms. The approximation weakens when rates are large.

Real interest rate. The return after allowing for changes in purchasing power. It can be negative even while the lender receives positive nominal interest. Borrowers and lenders care about purchasing power.

Annual percentage rate. A standardised measure intended to combine interest and specified charges into an annual cost, helping borrowers compare offers whose fees and timing differ. Its legal definition varies across jurisdictions.

Amortisation. Gradual repayment of principal through scheduled instalments. In a typical repayment loan, early payments contain more interest and later payments contain more principal.

Maturity. The date on which a debt's remaining principal becomes due. Maturity determines how long the borrower has and when refinancing risk arrives. Short maturity can dominate a low coupon.

Rollover. Replacing maturing debt with new borrowing. Governments and firms commonly roll debt rather than accumulate enough cash to repay every issue at once. Access to new funding is therefore critical.

Fixed rate. An interest rate that remains unchanged for an agreed period. It gives the borrower payment certainty and leaves the lender exposed to market-rate changes. Fixing may last less than the loan term.

Floating rate. An interest rate that resets against a benchmark plus a margin. It transfers changes in market rates into the borrower's payment or interest bill. Reset dates determine when the change is felt.

Credit risk. The possibility that a borrower will fail to make promised payments in full and on time, including the uncertainty over how much creditors recover afterwards. Probability and recovery are separate parts of

loss.

Default. Failure to meet a contractual obligation, such as payment, covenant or reporting requirements. Default may trigger enforcement, acceleration, negotiation or formal insolvency. Contracts define which events count and what follows.

Credit spread. The extra yield over a lower-risk benchmark that investors demand for credit risk, liquidity and other uncertainties attached to a particular debt. It can widen before any payment is missed.

Credit rating. An agency's ordered opinion of a borrower's or security's credit risk. It compresses information but is not a guarantee or a market price. Ratings can lag new information.

Collateral. An asset pledged to support repayment. If default occurs, the creditor may seize or sell it under the contract and applicable law. Collateral protects recovery more than payment capacity.

Loan-to-value ratio. The loan balance divided by the value of pledged collateral. A higher ratio means a thinner borrower equity cushion against a fall in price. Valuation method therefore changes apparent safety.

Covenant. A contractual promise restricting or requiring behaviour, such as limits on further borrowing or minimum interest coverage. Breach can give lenders rights before missed payment. Covenants operate as early intervention triggers.

Seniority. A claim's rank in the payment queue. Senior creditors are paid before junior creditors from available value, which usually lowers their expected loss. Rank matters most when value is insufficient.

Secured debt. Debt backed by a legal claim over specified collateral. Security improves recovery prospects but depends on valid title, enforcement and sale value. A broad market fall can weaken many secured loans together.

Unsecured debt. Debt supported by the borrower's general credit rather

than specified collateral. Its recovery depends on remaining assets and legal priority after superior claims.

Bond. A standardised debt security promising payments to investors, normally interest and principal. Bonds can be traded after issue, so their price and yield change.

Coupon. The contractual interest payment on a bond, usually expressed as a percentage of face value. It does not change when the bond's market price moves.

Yield. The return implied by a debt security's price and expected payments. Yield rises when price falls, assuming the expected cash flows remain unchanged.

Leverage. Use of debt to control assets larger than the borrower's equity. It magnifies changes in the residual value available to owners.

Debt-service ratio. Required interest and principal payments divided by income. It measures immediate payment burden more directly than the stock of debt alone.

Liquidity. Ability to meet payments when due or sell an asset quickly without a large discount. A borrower can be solvent and still lack liquidity.

Solvency. The condition in which assets and future income are sufficient to cover liabilities. Solvency concerns underlying value rather than cash available today.

Securitisation. Pooling loans and issuing tradable securities backed by their payments. It can diversify funding and separate origination from final risk-bearing.

Restructuring. Agreed or imposed alteration of debt terms, such as reducing principal, lowering interest or extending maturity, usually because the original promise cannot be met.

Go Deeper

The accessible overview

Philip Coggan, *Paper Promises: Money, Debt and the New World Order* (Allen Lane, 2011). Coggan begins from the useful fact that much of finance consists of claims on other people and institutions, then moves through banks, bonds, pensions, governments and crises without requiring technical training. It is strongest on how apparently safe assets depend on somebody else's capacity to pay. The book was written in the aftermath of the global financial crisis, so its examples and policy atmosphere belong to that moment, but the organising questions remain sound. Read it next for a broader narrative of how debt connects the financial system.

The moral and historical argument

David Graeber, *Debt: The First 5,000 Years* (Melville House, 2011). Graeber treats debt as a social and moral relation before treating it as a financial instrument. He ranges across ancient law, religion, violence, money and empire, challenging the idea that impersonal barter naturally came before credit. The scale is exhilarating and the specific historical claims have attracted serious criticism, so it should be read as a forceful interpretation rather than a settled survey. Read it to understand why owing carries language of guilt, honour and redemption that no interest-rate model can explain.

The crisis mechanism

Atif Mian and Amir Sufi, *House of Debt: How They (and You) Caused the Great Recession, and How We Can Prevent It from Happening Again* (University of Chicago Press, 2014). Mian and Sufi place household leverage and collapsing consumption near the centre of the Great Recession. Their evidence shows why losses imposed on highly indebted households can produce a deeper downturn than an equal fall borne by wealthier balance sheets. The argument is intentionally sharper than a complete history of 2008. Read it for the link between mortgage contracts, distribution and macroeconomic demand, and for proposals that make debt share more risk.

The long empirical record

Carmen M. Reinhart and Kenneth S. Rogoff, *This Time Is Different: Eight Centuries of Financial Folly* (Princeton University Press, 2009). This is the large historical dataset behind the recurring warning that credit booms and sovereign defaults are not modern accidents. It compares banking crises, inflation, domestic debt and external default across countries and centuries. Some later claims associated with the authors, especially on debt thresholds and growth, became heavily disputed and should not be imported into this book. Read the volume for patterns, classifications and evidence, while treating every simple numerical rule with suspicion.

Notes and Sources

Opening model

Debt as a claim across time. The book treats debt as a contractual claim rather than as a synonym for money or financial distress. The distinction between debt and equity, priority, control rights and the residual claim follows the contract-theory treatment in Jean Tirole's *The Theory of Corporate Finance* and the classic work on bond covenants by Clifford W. Smith Jr and Jerold B. Warner. The language of a fixed claim on an uncertain future is the book's synthesis, not a quotation.

Banks, bonds and public debt. The account of bank-created deposits follows Michael McLeay, Amar Radia and Ryland Thomas, “Money Creation in the Modern Economy”, published by the Bank of England in 2014. The article stresses both that bank lending creates deposits and that capital, regulation, market conditions and borrower demand limit creation. Bond standardisation, seniority, maturity and yield are described using standard fixed-income definitions and the contractual sources listed below.

Leverage and crisis. The account of feedback between debt, collateral values, forced sales and credit draws on Irving Fisher's debt-deflation mechanism, Hyman Minsky's financial-instability argument, and Nobuhiro Kiyotaki and John Moore's model of collateral-driven credit cycles. These approaches differ in method and should not be collapsed into one theory. They agree on the narrower point used here: balance-sheet responses can amplify an initial shock.

Relevance and scale

The global total. The International Monetary Fund's September 2025 update to the Global Debt Database reported total public and private debt of about \$251 trillion in 2024, just above 235 per cent of world GDP. Its private category comprises households and non-financial companies; it is not a total of every gross financial claim in the world. The text therefore uses the figure as a scale anchor, not as a measure of immediate danger.

The Bank of England. The Bank's official history records that it was founded in 1694 to help finance war against France and raise a £1.2 million government loan. Accounts of the number of original names vary because subscriber, account and ledger counts are not identical, so the manuscript avoids a subscriber total. The historical point is the durable connection between public borrowing, private investors and a standing financial institution.

One person's asset, another's liability. This is an accounting identity, subject to valuation and consolidation. Netting can remove positions within a sector, while gross claims still matter for liquidity and legal priority. The

distinction returns in How we know.

Core mechanisms

The Old Assyrian quittance. The Metropolitan Museum of Art's object 66.245.16a-b is a cuneiform tablet and clay envelope from the Old Assyrian trading colony at Kanesh. Its text records that a silver loan was paid, voids further claims and names witnesses. The book uses the object to show that discharge and proof of discharge are part of debt, not to claim that one site invented lending.

Interest and compounding. The compound-interest examples are arithmetic. The approximate real-rate comparison uses the familiar nominal rate minus inflation approximation, which is close at modest rates; the exact Fisher relation differs slightly. The discussion of risk, liquidity, administration and market power separates components that may enter a borrowing rate without claiming that every lender prices each one explicitly.

Credit rationing. Joseph E. Stiglitz and Andrew Weiss showed how raising rates can worsen adverse selection and borrower incentives under imperfect information, so equilibrium can include applicants who would accept the rate but are denied credit. The manuscript uses this as a mechanism, not as a claim that all refusals or rate caps have the same effect.

Creditworthiness and information. The World Bank's *General Principles for Credit Reporting* explains how credit-reporting systems reduce information gaps while requiring accuracy, security, governance and effective oversight. The United States Consumer Financial Protection Bureau has described alternative data as a possible route to wider access and a possible source of opacity or unlawful discrimination. The text therefore treats creditworthiness as a prediction built by institutions rather than an enduring personal property.

Bank money creation. McLeay, Radia and Thomas are the main source. A bank making a loan normally creates a matching deposit, while transfers to other banks require settlement. The description does not imply that every

loan begins with a credit to the final borrower's current account, or that deposits and wholesale funding cease to matter after origination.

Capital and liquidity. Capital is presented as the loss-absorbing difference between assets and liabilities, not a cash reserve. Liquidity is the capacity to meet payments when due. The Bank of England's 2014 money articles and its 2023 report on interest-rate risk support the distinction, along with the role of collateral calls, asset-price losses and fire sales.

Household debt and debt service. Anna Zabai's 2017 BIS review defines the debt-service ratio as interest plus amortisation relative to income and explains why payment burden, duration and liquid buffers matter beside the stock of debt. In the countries studied, mortgages formed between 62 and 97 per cent of household debt. The manuscript does not generalise that range to every country or year.

Corporate debt, priority and covenants. Tirole provides the wider account of debt, control and incentives. Smith and Warner analyse the role of bond covenants in limiting actions that can transfer value from creditors to shareholders. Legal ranking varies by jurisdiction, especially for employees, tax claims and insolvency expenses, so the manuscript states the general queue without prescribing a universal order beyond secured, senior, junior and residual claims.

Sovereign debt. The IMF's sovereign-debt materials support the discussion of debt-sustainability analysis, creditor coordination, collective action clauses and the absence of a single global sovereign bankruptcy court. Domestic-currency issuance creates options that foreign-currency borrowing does not, but monetary financing remains constrained by law, institutions, inflation and financial stability. The manuscript avoids the false claim that a currency issuer can repay without economic cost.

Debt relief through history. Larry May's chapter on debt forgiveness in *Ancient Legal Thought* discusses the edict of Ammisaduqa and the place of relief in early legal thought. David Graeber supplies the broader moral history used as a contrasting interpretation. The scope, frequency and

practical reach of individual edicts remain subjects for specialist study, and the manuscript does not rely on Graeber's more disputed chronology or on the claim that one simple sequence explains the origin of money.

Operating sequence

Mortgage calculation. The illustrative £250,000 mortgage assumes a 5 per cent nominal annual rate divided monthly, 360 equal monthly payments and no fees. The standard amortisation formula gives a payment of about £1,342 and total interest of about £233,000 if the rate and schedule never change. Real products may use different compounding, fees, fixed periods, early-repayment charges and legal disclosures.

Underwriting. Loan-to-value, income and debt-service measures are common tools, but underwriting rules vary across products and jurisdictions. The manuscript uses them as examples of cash-flow and collateral tests rather than as advice on obtaining or approving a mortgage.

Securitisation and tranching. The description follows the operating structure of mortgage-backed securities: loan cash flows are pooled, servicing is separated from ownership, and contractual priority creates securities that absorb losses at different points. Tranching reallocates risk within the pool; it does not change the aggregate payments made by borrowers.

Bond price, coupon and yield. The inverse relationship between a fixed-coupon bond's market price and prevailing required yield follows fixed-income arithmetic. Credit spreads can move because of expected default, recovery, liquidity and broad risk appetite. The text does not treat a spread as a pure probability of default.

Corporate borrowing. The sections on revolving facilities, seasonal cash flow, covenants and acceleration use standard corporate-finance practice. Cross-default clauses vary and may contain materiality thresholds or cure periods. The manuscript describes the mechanism without implying that every loan contains every clause.

Government borrowing and restructuring. The IMF notes that its debt-sustainability analysis helps define the financing or relief envelope in programmes, while negotiations remain between the debtor and creditors. The IMF does not itself rewrite private contracts. Maturity extension, coupon reduction and principal reduction are described as possible tools, not a prescribed sequence.

The boom and the break. Federal Reserve History links the United States subprime crisis to an expansion of mortgage credit that both supported and was supported by rising house prices. The Financial Crisis Inquiry Commission concluded that the crisis was avoidable and identified failures in regulation, governance, borrowing, risk-taking and accountability. The United States Government Accountability Office found evidence that leverage and deleveraging could amplify losses through sales and reduced lending, while warning that no single theory explains the whole crisis. The manuscript follows that plural account.

Interest-rate transmission. The Bank of England's 2023 financial-stability report describes how higher rates raise servicing and refinancing costs, reduce some asset values and produce margin or collateral calls that can lead to forced sales. The book generalises the mechanism but does not import the report's temporary UK rate levels into a timeless explanation.

Corrections

Debt totals. Stock, flow, gross, net, face value and market value answer different questions. The IMF, BIS and Reinhart-Rogoff data work all warn in different ways that classification and coverage matter. The correction does not deny that total debt can contain useful information; it denies that the total alone measures fragility.

Banks and deposits. The correction follows the Bank of England's explicit rejection of the textbook image in which banks mechanically lend out deposits or multiply a fixed quantity of central-bank money. Funding and deposits remain important to price, settlement, liquidity and growth after the loan decision.

Collateral. Kiyotaki and Moore supply the formal mechanism by which collateral values, credit limits and asset prices interact. The practical account also follows the Bank of England's discussion of collateral and margin calls. A haircut lowers exposure to ordinary price movement; it cannot guarantee sale value in a common stress.

Government and household finance. The text keeps the valid part of the analogy, budget and credibility constraints, while rejecting identical lifetimes, powers and currencies. It also distinguishes debt held domestically from claims on external resources. This is analysis, not an argument for a particular level of public borrowing.

The 2008 explanation. The borrower-only account conflicts with the FCIC's multi-causal findings and with the documented roles of securitisation, leverage, funding, governance and regulation. Individual misconduct remains in the story; it is not made to carry the system alone.

Default and write-off. Accounting write-down, legal discharge, contractual forgiveness, sale to a collector and missed payment are distinct. Insolvency and collection rules vary materially by country. The chapter states the common economic point: recognising a loss does not restore the missing resources.

Practical lenses

The lenses. The five lenses are derived from the book's model: counterpart balance sheets, payment cash flow, maturity, collateral feedback and amendment power. They are analytical prompts, not personal financial advice. Applying them to a live contract requires its full terms, jurisdiction, tax position and the borrower's circumstances.

The limits. The manuscript separates financial efficiency from distributional justice. Contract priority can maximise recovery and still produce a result readers judge unfair. That tension is left open because economics can reveal transfers and incentives without supplying a complete moral ranking.

Glossary

Definitions follow mainstream financial usage, with two cautions. Annual percentage rate is a legal disclosure concept whose exact calculation varies. Seniority and insolvency priority depend on governing law. The terms are therefore designed to support further reading rather than replace a contract or statute.

Further reading

Publication details were checked against publisher records. Graeber's book is recommended for its moral and anthropological argument with an explicit warning about contested historical claims. Reinhart and Rogoff are recommended for the long crisis record; the disputed later debate over simple public-debt thresholds is not presented as a finding of this manuscript. Mian and Sufi are used for a deliberately strong household-debt interpretation of the Great Recession, not as the only account. Coggan is the broadest reader-facing bridge from this book into the wider financial system.

Bibliography

Books

Coggan, Philip. *Paper Promises: Money, Debt and the New World Order*. London: Allen Lane, 2011.

Graeber, David. *Debt: The First 5,000 Years*. Brooklyn: Melville House, 2011.

May, Larry. *Ancient Legal Thought: Equity, Justice, and Humaneness from Hammurabi and the Pharaohs to Justinian and the Talmud*. Cambridge: Cambridge University Press, 2019.

Mian, Atif, and Amir Sufi. *House of Debt: How They (and You) Caused the Great Recession, and How We Can Prevent It from Happening Again*. Chicago: University of Chicago Press, 2014.

Minsky, Hyman P. *Stabilizing an Unstable Economy*. New Haven: Yale University Press, 1986.

Reinhart, Carmen M., and Kenneth S. Rogoff. *This Time Is Different: Eight Centuries of Financial Folly*. Princeton: Princeton University Press, 2009.

Tirole, Jean. *The Theory of Corporate Finance*. Princeton: Princeton University Press, 2006.

Academic articles

Fisher, Irving. "The Debt-Deflation Theory of Great Depressions." *Econometrica* 1, no. 4 (1933): 337-357.

Kiyotaki, Nobuhiro, and John Moore. "Credit Cycles." *Journal of Political Economy* 105, no. 2 (1997): 211-248.

Smith, Clifford W., Jr, and Jerold B. Warner. "On Financial Contracting: An Analysis of Bond Covenants." *Journal of Financial Economics* 7 (1979): 117-161.

Stiglitz, Joseph E., and Andrew Weiss. "Credit Rationing in Markets with Imperfect Information." *American Economic Review* 71, no. 3 (1981): 393-410.

Institutional, official and primary sources

Bank for International Settlements. Zabai, Anna. "Household Debt: Recent Developments and Challenges." *BIS Quarterly Review*, December 2017.

Bank of England. "Financial Stability in Focus: Interest Rate Risk in the Economy and Financial System." 12 July 2023.

Bank of England. "Who Owns the Bank of England?" 19 May 2020.

Bank of England. McLeay, Michael, Amar Radia, and Ryland Thomas. "Money Creation in the Modern Economy." *Quarterly Bulletin* 2014 Q1, 14 March 2014.

Consumer Financial Protection Bureau. "Using Alternative Data to Evaluate

Creditworthiness.” 16 February 2017.

Duca, John V. “Subprime Mortgage Crisis.” *Federal Reserve History*.
Written as of 22 November 2013.

Financial Crisis Inquiry Commission. *The Financial Crisis Inquiry Report: Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States*. Washington, DC: U.S. Government Printing Office, 2011.

Gaspar, Vitor, Carlos Eduardo Goncalves, and Marcos Poplawski-Ribeiro. “Global Debt Remains Above 235% of World GDP.” *IMF Blog*, 17 September 2025.

International Monetary Fund. “Questions and Answers on Sovereign Debt Issues.” Last updated 8 April 2021.

Metropolitan Museum of Art. “Cuneiform Tablet: Quittance for a Loan in Silver.” Accession 66.245.16a-b, Old Assyrian Trading Colony period.

United States Government Accountability Office. *Financial Markets Regulation: Financial Crisis Highlights Need to Improve Oversight of Leverage at Financial Institutions and across System*. GAO-09-739. Washington, DC, July 2009.

World Bank. *General Principles for Credit Reporting*. Washington, DC: World Bank, 2011.

World Bank. “International Committee on Credit Reporting.” Updated 3 March 2026.

All web-based institutional sources were rechecked on 10 August 2026.