The Missing Monetary Element

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Engineering disciplines have repeatedly discovered "missing" fundamental elements – constructs that complete a theoretical framework and unlock vast new capabilities. The inerter in mechanical systems, the memristor in electronics, and the positron in particle physics were each predicted by theoretical symmetry before their practical realization.

Economics and monetary theory may harbor a similar gap. Our entire monetary discourse revolves around two constructs: *commodity money* (value acquired through exchange) and *credit money* (value created through debt). But a third construct – *hypothecation money* (value representing claims on owned, attested wealth) – is conspicuously absent from civilian economic life, despite being the mechanism through which commercial banks actually create the money supply.

This missing element may explain the pathological dynamics of modern economies: the systematic devaluation of labour relative to capital, the mathematical impossibility of aggregate debt repayment, and the continuous transfer of real assets to money issuers. Making hypothecation money available to ordinary citizens could restore economic optionality that has been absent for centuries.

For Alberta specifically, this opportunity converges with unique constitutional authority, massive attestable wealth, and urgent economic necessity. The Alberta Buck system provides a complete implementation blueprint. The question is whether Alberta will seize this transformative first-mover advantage – or cede it to others. (PDF, Text)

Contents

1 The Pattern of Missing Elements

1.1 The Inerter: Completing Mechanical Systems

For over a century, mechanical engineers worked with three fundamental elements: the *spring* (stores potential energy proportional to displacement), the *damper* (dissipates energy proportional to velocity), and *mass* (resists acceleration—force proportional to acceleration). These three elements, combined with levers and linkages, seemed to describe all possible mechanical behaviours.

But in 2002, Malcolm Smith at Cambridge University identified a gap. The mechanical-electrical analogy that engineers used to translate between domains was *incomplete*. Electrical circuits had four fundamental elements – resistor, capacitor, inductor, and the then-hypothetical memristor – but mechanical systems had only three. Where was the mechanical element analogous to inductance in the force-current analogy?

Smith invented the *inerter*: a two-terminal device where the force is proportional to the *relative* acceleration between its terminals, rather than absolute acceleration like mass.[1] The practical implications were immediate and profound. Formula 1 racing teams adopted inerters within years, achieving suspension performance previously thought impossible. The "missing element" had been hiding in plain sight – theoretically predictable, practically transformative, yet invisible until someone asked the right question.

1.2 The Memristor: Completing Electronic Circuits

Leon Chua predicted the memristor in 1971 through pure symmetry arguments.[2] Electrical engineers had three fundamental two-terminal elements relating the four basic circuit variables (voltage, current, charge, flux):

Element	Relationship
Resistor	Voltage Current ($dV = R \cdot dI$)
Capacitor	Voltage Charge ($dV = C^{-1} \cdot dQ$)
Inductor	Current Flux ($dI = L^{-1} \cdot d$)
???	Charge Flux ($d = M \cdot dQ$)

The fourth relationship – between charge and magnetic flux – demanded a fourth element. Chua called it the *memristor* (memory resistor) because its resistance depends on the history of current that has flowed through it.

For 37 years, the memristor remained a theoretical curiosity. Then in 2008, HP Labs announced they had built one.[3] The device exhibited exactly the properties Chua had predicted. Today, memristors enable neuromorphic computing architectures that would be impossible with conventional components – artificial synapses that learn and remember, consuming a fraction of the power required by digital alternatives.

The memristor was always *possible*. The physics permitted it. But until Chua identified the gap in the theoretical framework, no one thought to build one.

1.3 The Positron: Completing Particle Physics

Paul Dirac's 1928 equation describing relativistic electrons had an embarrassing feature: it predicted particles with negative energy. Rather than dismiss this as mathematical artifact, Dirac proposed that these solutions represented real particles – electrons with positive charge.

Four years later, Carl Anderson discovered the positron in cosmic ray experiments, exactly matching Dirac's prediction. The "missing" antimatter had been streaming through the universe all along; physicists simply hadn't known to look for it.

1.4 The Pattern

These discoveries share a common structure:

1. A theoretical framework appears complete

2. Symmetry arguments reveal a gap

[1] Smith, Malcolm C. (2002). "Synthesis of Mechanical Networks: The Inerter." IEEE Transactions on Automatic Control.

[2] Chua, Leon O. (1971). "Memristor—The Missing Circuit Element." IEEE Transactions on Circuit Theory.

[3] Strukov, D.B., et al. (2008). "The missing memristor found." Nature 453, 80-83.

3. The missing element, once identified, proves practically transformative

4. In retrospect, the gap seems obvious

What if monetary economics has a similar gap?

2 The Two Moneys We Know

Ask any economist, politician, or educated civilian about money, and the discussion will inevitably revolve around two categories:

2.1 Commodity Money: Value Through Exchange

Commodity money – gold, silver, cattle, shells, Bitcoin – represents value *acquired by giving something up*. To obtain commodity money, you must sell something: your labour, your goods, your time. The money is *substitutionary*: you hold the money *instead of* what you exchanged for it.

This is the money of classical economics, the money of Austrian theory, the money that "sound money" advocates wish to restore. Its supply is limited by physical scarcity. Its value derives from the commodity itself or from what was sacrificed to obtain it.

2.2 Credit Money: Value Through Debt

Credit money – bank deposits, government bonds, commercial paper – represents value *created through borrowing*. When a bank issues a mortgage, it creates new money by typing numbers into an account. The borrower now has purchasing power they didn't have before, but they also have an obligation to repay with interest.

This is the money of modern economies, created through what Werner (2014) documented as ex nihilo credit creation.[4] Its supply is limited only by creditworthiness assessments and regulatory capital requirements. Its value derives from the borrower's promise to repay.

Credit money is also *substitutionary* in a sense: the borrower acquires purchasing power now in exchange for future purchasing power (principal plus interest). They are buying present consumption with future income.

2.3 The Exhaustive Dichotomy?

Every mainstream monetary discussion assumes these two categories exhaust the possibilities. Gold bugs versus fiat advocates versus Bitcoin maxis. Commodity backing versus credit expansion. Hard money versus soft money.

But what if there's a third category – one that is neither commodity money (acquired through exchange) nor credit money (created through debt)?

3 The Missing Element: Hypothecation Money

3.1 Definition

Hypothecation money represents a claim on *owned, attested, and insured wealth* that the owner continues to possess and use. Unlike commodity money, nothing is given up to acquire it. Unlike

[4]Werner, Richard A. (2014). "How do banks create money, and why can other firms not do the same? An explanation for the coexistence of lending and deposit-taking." International Review of Financial Analysis.

credit money, no debt is created.

The owner holds *both* the wealth *and* the money simultaneously, until either:

- The owner redeems the money (releasing the hypothecation), or
- Someone presents the money and claims the underlying wealth

This is fundamentally different from both commodity and credit money:

Property	Commodity Money	Credit Money	Hypothecation Money
Acquired by	Exchange (sale)	Borrowing (debt)	Attestation (claim)
Owner gives up	The commodity	Future income	Nothing (retains wealth)
Creates obligation?	No	Yes (repayment)	Yes (redemption)
Backed by	Intrinsic value	Promise to repay	Existing wealth
Limited by	Physical scarcity	Creditworthiness	Attestable wealth

3.2 The Symmetry Argument

Consider the fundamental economic relationships between *wealth*, *money*, and *obligation*:

Relationship	Mechanism	Result
Wealth → Money	Sale	Commodity money
Obligation → Money	Borrowing	Credit money
Wealth + Claim → Money	???	???

The third row – converting existing wealth into money while retaining the wealth – is the "missing element." The relationship exists in principle (hypothecation is a well-established legal concept), but no monetary instrument makes it available to ordinary economic participants.

3.3 The Curious Exception: Commercial Banks

Here is the peculiar fact that reveals the gap: *commercial banks already use hypothecation money.*

When a bank creates a mortgage, it doesn't lend existing deposits (the "loanable funds" theory that textbooks still teach). Instead, it:

1. Accepts a claim on the borrower's property (the mortgage lien)
2. Creates new money (the deposit) backed by that claim
3. Retains the ability to seize the property if payments stop

The bank has created money *from* the borrower's wealth, not from any pre-existing funds. This is hypothecation money. The "loan" is really the bank monetizing the borrower's own assets – and charging interest for the privilege.

Werner (2014) empirically demonstrated this process. The Bank of England confirmed it.[5] Yet this capability is restricted to licensed banks through regulatory privilege (exemption from "Client Money Rules" that would make anyone else's created deposits illegal).

The missing monetary element isn't missing from the economy. It's missing *from civilians.*

[5]McLeay, Michael, Amar Radia, and Ryland Thomas. (2014). "Money creation in the modern economy." Bank of England Quarterly Bulletin.

4 Consequences of the Gap

4.1 The Labour-Capital Imbalance

When workers can only access money through sale (wages) or debt (borrowing), while capital owners can access money through hypothecation (bank lending against assets), a structural imbalance emerges.

A worker who improves their skills, builds a business, or increases their property value cannot access that increased wealth as spending power – unless they *sell* it or *borrow against* it. Both options have costs: selling means giving up the asset permanently; borrowing means paying interest indefinitely and (most striking) *risks losing of the property on "default"*.

A capital owner (or bank) facing the same situation can hypothecate the increased value directly, accessing spending power without sale or debt. The returns to capital thus compound in ways that returns to labour cannot.

This isn't a moral failing or policy choice. It's a structural consequence of civilians lacking access to the third monetary element.

4.2 The Debt Explosion

If credit money is the *only* mechanism for creating purchasing power beyond commodity exchange, then economic growth *requires* debt growth. Every dollar of GDP not covered by commodity money (gold flows, trade surpluses) must be created as someone's debt.

Global debt now exceeds $330 trillion – over 300% of global GDP.[6] This isn't profligacy; it's arithmetic necessity. A credit-money-only system *must* accumulate debt to function.

The interest on this debt (approximately $15-20 trillion annually at current rates) creates a further impossibility: the money to pay the interest doesn't exist until more debt is created. The system requires exponential debt growth merely to service existing obligations.

Hypothecation money breaks this trap. Money created against existing wealth requires no repayment and generates no interest obligation. Economic activity can expand without corresponding debt expansion.

4.3 Asset Forfeiture to Money Issuers

When banks create money through hypothecation but civilians can only access that money through debt, a transfer mechanism activates: any failure to repay results in asset forfeiture *to the money issuer*.

Consider: the bank created the mortgage money from nothing, backed by your house. If you fail to repay, the bank seizes your house. The bank has acquired a real asset in exchange for numbers it typed into a computer.

This isn't fraud – it's the legal structure of credit money creation. But it's a structure that only functions because civilians lack the alternative of hypothecating their own wealth directly.

If you could create money against your house yourself (paying insurance premiums rather than interest), "foreclosure" would be impossible. There would be no lender to foreclose. The worst case would be the insurer claiming the asset upon its loss – but the insurer actually *paid* for that claim through years of premium collection and reserves, unlike the bank that created the mortgage from nothing.

[6] Institute of International Finance. Global Debt Monitor, 2024.

4.4 The Generational Collapse

Perhaps the most visible consequence of the missing monetary element is the systematic destruction of generational wealth-building capacity. The pathology is starkest in housing:

In 1970, the median Canadian home cost 3.5 times median annual income. A young worker could reasonably expect to buy a home, support a family on a single income, and build equity that compounded over decades. By 2024, that ratio exceeds 10:1 in major cities – often 15:1 or 20:1.

This isn't primarily a supply problem or a speculation problem. It's a *monetary mechanism* problem. When home purchases require debt, and debt carries interest that exceeds the productive yield of the underlying asset, housing becomes a wealth transfer mechanism from buyers to lenders rather than a wealth accumulation mechanism for families.

The interest payments on a $500,000 mortgage at 5% exceed $125,000 over 30 years – often more than the original construction cost of the home. That $125,000 doesn't build anything, improve anything, or create anything. It's pure seigniorage extracted because civilians lack access to the monetary mechanism banks use.

Younger generations understand this viscerally, even if they can't articulate the mechanism. They see their parents' generation bought homes with 3-5 years of income. They face needing 10-15 years of income *plus* decades of interest payments. The implicit promise that labour creates wealth has been broken – not through policy failure, but through monetary structure.

The consequence is catastrophic and accelerating:

- Birth rates collapsing as family formation becomes economically impossible
- Generational wealth transfer impossible (parents can't help children who face 10x-20x price ratios)
- Loss of confidence in institutions that claim to serve the public good but extract wealth systematically
- Political radicalization as younger generations recognize the game is structurally rigged

This isn't fixable through housing policy, interest rate adjustments, or affordability programs. Those address symptoms. The cause is that one generation can hypothecate assets (banks create mortgages) while the next generation can only borrow (paying interest on their own wealth).

Hypothecation money would restore the fundamental equation: labour creates wealth, wealth creates spending power, families can form and flourish. Not through subsidy or redistribution, but through making available to everyone the monetary mechanism currently restricted to banks.

5 The Missing Element Made Available

5.1 What Would Change?

If ordinary citizens could hypothecate their wealth – creating money backed by owned, attested, insured assets – several transformations would follow:

5.1.1 Economic Optionality Restored

Today, a worker who invests labour to increase their capital (renovating a house, improving farmland, building a business) has *two* options to access that increased value:

1. Sell the asset (give it up)

2. Borrow against it (pay interest indefinitely)

With hypothecation money, a *third* option emerges:

1. Attest the increased value, pay insurance premiums, access the value as money

This third option preserves ownership, avoids debt, and requires only risk coverage (insurance) rather than interest payments. The cost is typically 1/10th to 1/20th of debt service.

5.1.2 Labour-Capital Rebalancing

When labourers can directly monetize the fruits of their labour – the home they improved, the land they cultivated, the business they built – the structural advantage of capital diminishes. Returns to labour can compound as returns to capital always have.

This doesn't require redistribution, taxation, or policy intervention. It requires only making available to everyone a monetary mechanism currently restricted to banks.

5.1.3 Debt Stabilization

Economic growth no longer requires debt growth when hypothecation money provides an alternative source of purchasing power. Debt can return to its natural function: bridging temporary gaps between income and expenditure, funding genuine investment, facilitating trade – rather than serving as the sole mechanism for money creation.

5.1.4 Asset Security

When civilians create money through hypothecation rather than borrowing, there is no "lender" to foreclose. The asset remains the owner's unless they choose to sell it or the insurance claim triggers (meaning the asset was lost or destroyed).

"Foreclosure" becomes "insurance claim" – a fundamentally different relationship. The insurer *earned* their claim through premium collection and reserve building. The bank "earned" nothing; it created the loan money from thin air.

5.2 Why Hasn't This Happened?

The missing monetary element is missing for reasons similar to why the inerter was missing: nobody thought to look for it.

5.2.1 Theoretical Blindness

Economists have spent centuries debating commodity versus credit money. The terms of debate assume these exhaust the possibilities. Hypothecation exists as a legal concept (banks use it constantly), but the idea of making it a *general monetary mechanism* falls outside the frame.

It's as if electrical engineers debated resistors versus capacitors for decades while using inductors constantly in their circuits – but never noticed that inductors constituted a third category worth theorizing.

5.2.2 Regulatory Capture

Banks benefit enormously from their monopoly on hypothecation money. The interest spread between what they pay depositors and charge borrowers represents pure seigniorage – wealth transfer for the privilege of creating money from others' assets.

Making hypothecation money generally available would eliminate this seigniorage. Banks would become what textbooks claim they already are: intermediaries matching savers with borrowers, earning fees for risk assessment and transaction processing, but not extracting wealth merely for creating ledger entries.

The regulatory structure that grants banks their money-creation privilege while prohibiting others from the same activity isn't accidental. It's maintained by those who benefit from it.

5.2.3 Technical Barriers (Now Solved)

Until recently, hypothecation money faced practical obstacles:

- **Attestation**: How do you verify what someone owns and its value?
- **Insurance**: How do you price and manage the risk that backing assets might be lost?
- **Fungibility**: How do you make claims on heterogeneous assets (houses, gold, cattle) exchangeable?
- **Settlement**: How do you process redemptions when someone claims the underlying wealth?

Blockchain technology, smart contracts, parametric insurance, and decentralized oracles have solved each of these problems. The technical barriers that made hypothecation money impractical for centuries have fallen within the last decade.

What remains is recognition that the gap exists – and will to fill it.

6 Completing the Monetary Framework

6.1 The Analogy Holds

The inerter completed mechanical systems by providing force proportional to *relative* acceleration. The memristor completed electronic circuits by relating charge to flux. The positron completed particle physics by providing antimatter.

Hypothecation money completes monetary theory by providing a mechanism to convert wealth to money *without* sale or debt. Like its predecessors, it:

1. Was always theoretically possible
2. Was partially present (banks use it) but incompletely recognized
3. Has transformative practical implications
4. Seems obvious in retrospect

6.2 The Question Before Us

Engineering disciplines celebrated the discovery of missing elements. Formula 1 teams adopted the inerter within years. HP Labs invested billions in memristor development. Particle physicists built ever-larger colliders to explore antimatter.

Will economics celebrate the recognition of hypothecation money? Or will regulatory capture and theoretical inertia suppress a transformation that threatens incumbent interests?

The answer may depend on whether jurisdictions exist that are willing to implement what theory demands – places where citizens can access the full monetary framework, not just the two elements that benefit existing institutions.

6.3 First Mover Advantage

The jurisdiction that first provides civilian access to hypothecation money will experience something remarkable: capital formation without debt accumulation, asset security without foreclosure risk, and labour compensation commensurate with labour's contribution to value.

Workers will migrate to where their efforts can compound. Capital will flow to where it isn't slowly siphoned through interest payments. Economic growth will decouple from debt growth for the first time in modern history.

The first mover advantage is substantial. The jurisdiction that acts first will attract:

- Workers seeking to monetize the value they create
- Entrepreneurs able to build without debt burdens
- Capital seeking returns unconstrained by extractive intermediaries
- Innovators building the next generation of economic infrastructure

This advantage is available to *any* jurisdiction willing to see what has been missing and provide what theory predicts must exist.

The missing monetary element is hiding in plain sight. The only question is who will be first to make it available to everyone – and seize the transformative advantages that follow.

7 Alberta's Moment: From Resource to Monetary Superpower

7.1 The Unique Convergence

Alberta stands at a unique convergence of circumstances that may occur only once in economic history. No other jurisdiction combines:

1. **Massive attestable wealth**: $1.6 trillion in real estate, $50+ billion in agricultural assets, centuries of oil and gas reserves, and a population wealthy enough to own substantial capital
2. **Constitutional authority**: Under Canada's Constitution Act, 1867, Section 92(13), Alberta has clear provincial jurisdiction over property and civil rights, including contracts and insurance – the exact legal mechanisms required for hypothecation money[7]

[7] *Constitution Act, 1867*, 30 & 31 Vict, c 3, reprinted in RSC 1985, Appendix II, No 5. Section 92(13) grants provinces exclusive jurisdiction over "Property and Civil Rights in the Province," which encompasses contracts, property law, insurance regulation, and civil transactions – the foundational legal mechanisms required for hypothecation money systems.

3. **History of financial innovation**: Alberta Treasury Branches (ATB Financial) has operated since 1938 outside federal banking jurisdiction, demonstrating Alberta's capacity to create provincial financial institutions that serve public purposes[8]

4. **Economic necessity**: Alberta sends $23+ billion annually in interest payments to external financial institutions, draining wealth that could be retained locally if Albertans could hypothecate their own assets instead of borrowing against them

5. **Technical capability**: The blockchain, smart contract, and oracle infrastructure required to implement hypothecation money at scale now exists and has been proven in production systems

This convergence is rare. Most resource-rich jurisdictions lack constitutional authority. Most jurisdictions with legal authority lack attestable wealth. Alberta has both – and the urgency to act.

7.2 The Alberta Buck: Theory Made Concrete

The theoretical framework described in this paper is not hypothetical for Alberta. A complete implementation specification exists: the **Alberta Buck**.

The Alberta Buck discusses the high-level implications of wealth-backed vs. debt money.

The Alberta Buck Architecture provides the technical design[9]:

- Blockchain-based tokens (BUCKs) backed by attested, insured claims on private wealth
- NFT-based credit limits (BUCK_CREDIT) scaled by stabilization factors
- Parametric insurance integration to mitigate default risks
- PID controllers and oracles for dynamic supply management
- Valuation against diversified commodity baskets (energy, agriculture, metals, labour)

The Alberta Buck Legal Foundation establishes constitutional viability[10]:

- Provincial authority over property, contracts, and insurance (s 92(13))
- Non-competition with federal currency powers (s 91(14)-(15))

[8] *ATB Financial Act*, RSA 2000, c A-37. This Alberta statute governs Alberta Treasury Branches (ATB Financial), a provincial Crown corporation financial institution operating since 1938. Section 45(1) provides: "The repayment of all deposits with Alberta Treasury Branches and the payment of all interest thereon is guaranteed by the Crown in right of Alberta." ATB operates $60+ billion in assets outside federal *Bank Act* jurisdiction and without CDIC participation, demonstrating Alberta's constitutional capacity for provincial financial innovation.

[9] Perry Kundert. "The Alberta Buck – Architecture" (2025). Comprehensive technical specification for a blockchain-based wealth-backed token system including: ERC-20 fungible tokens (BUCKs) backed by attested and insured private wealth; NFT-based credit limits (BUCK_CREDIT) scaled by algorithmic stabilization factors (BUCK_K); parametric insurance integration with automated claims processing; PID controllers and decentralized oracles for dynamic supply management; and valuation mechanisms using diversified commodity baskets to provide stable purchasing power independent of CAD.

[10] Perry Kundert. "The Alberta Buck – Legal Foundation" (2025). Constitutional and legal analysis establishing the viability of the Alberta Buck under Canadian federal and Alberta provincial law, including: provincial jurisdiction over property and civil rights (s 92(13)); non-competition with federal currency powers (s 91(14)-(15)); historical precedents (Colonial American Land Banks, Swiss WIR Bank, MakerDAO/DAI); regulatory pathways through Alberta Securities Commission and Superintendent of Insurance; and asset retention mechanisms through Personal Property Security Act (PPSA) liens allowing owners to grant security interests while retaining possession and use.

- Precedents in Colonial American Land Banks, Swiss WIR Bank, and MakerDAO/DAI
- Regulatory pathways through Alberta Securities Commission and Superintendent of Insurance
- Asset retention through Personal Property Security Act (PPSA) liens

This isn't theoretical speculation. It's an implementable system with defined architecture, legal foundation, and operational mechanics. The missing monetary element can be made available to Albertans – the question is when, not whether.

7.3 What Alberta Could Become

If Alberta implements the Alberta Buck, making hypothecation money available to its citizens, the transformation would be immediate and profound:

7.3.1 Economic Impact

- **$23+ billion in annual interest savings**: Money currently flowing to external lenders stays in Alberta, retained by asset owners who hypothecate rather than borrow
- **40% reduction in housing costs**: Homeowners who hypothecate $200K of a $500K home pay ~$1,000/year in insurance premiums instead of $10,000/year in mortgage interest
- **Asset-backed broad money supply**: Alberta creates M2/M3-equivalent money from existing wealth, displacing CAD-denominated commercial borrowing without creating debt
- **Labour value capture**: Workers who improve assets (renovations, land cultivation, business building) can immediately monetize that increased value without sale or borrowing

7.3.2 Generational Restoration

Most critically, Alberta would restore the possibility of family formation and generational wealth-building that has been systematically destroyed across developed economies:

- **Housing becomes achievable again**: A young Albertan earning $60,000/year could buy a $300,000 starter home by hypothecating existing family assets (parents' home equity, land, vehicles) to cover the down payment and construction costs – paying ~$1,500/year in insurance premiums rather than $15,000/year in mortgage interest. The 10-15 year income multiple collapses back to 3-5 years.
- **Single-income families become viable**: When housing costs drop by 40% and families aren't paying $10,000-$30,000 annually in mortgage interest, one parent can stay home with children without financial catastrophe. Family formation no longer requires dual incomes merely to service debt.
- **Generational wealth transfer is restored**: Parents who hypothecate their home to help children buy property don't lose their home or incur debt. They retain full ownership, pay modest insurance premiums, and enable their children to build equity from day one. The wealth compounds across generations instead of being extracted by lenders.

- **Birth rates stabilize**: When young adults can realistically expect to form families, own homes, and build wealth through labour, the existential despair driving collapsing birth rates dissolves. Alberta would become a demographic outlier – growing while other jurisdictions shrink.

- **Youth confidence and engagement return**: When the system isn't structurally rigged against young workers, institutional trust rebuilds. Political radicalization driven by hopelessness gives way to civic engagement driven by realistic optimism.

- **Brain drain reverses**: Alberta's brightest young minds currently flee to wherever they can afford to live and build families. If Alberta offers what nowhere else does – the ability to monetize labour into wealth without debt servitude – the flow reverses. Alberta becomes the destination for ambitious youth globally.

This isn't utopian speculation. It's arithmetic. When you eliminate $10,000-$30,000 in annual interest payments per household and replace them with $1,000-$3,000 in insurance premiums, families have $9,000-$27,000 more annually for savings, children, or quality of life. That difference is transformative.

Alberta would demonstrate to the world that generational collapse isn't inevitable – it's a consequence of monetary structure. Change the structure, restore the future.

7.3.3 Strategic Positioning

Alberta would become:

1. **The world's first jurisdiction** to provide civilian access to hypothecation money, gaining first-mover advantages that compound for decades

2. **A magnet for capital and talent**: Entrepreneurs, investors, and workers migrate to where economic optionality is maximized and debt burdens are minimized

3. **A living laboratory** demonstrating monetary possibilities that mainstream economics claims are impossible, forcing global reconsideration of monetary theory

4. **A constitutional challenger** to federal monetary monopoly – not through confrontation, but through innovation within provincial jurisdiction that proves superior to federal alternatives

5. **An economic superpower** whose wealth stems not from resource extraction but from monetary innovation – sustainable competitive advantage that doesn't deplete with use

7.4 The Alternative: Continued Subordination

If Alberta does not act, the consequences are equally clear and increasingly catastrophic:

- Interest outflows will continue draining $23+ billion annually from the provincial economy

- Asset owners will continue losing property to foreclosure on debts that need never have existed

- Labour will remain systematically undervalued relative to capital

- Economic growth will remain coupled to debt growth, limiting sustainable prosperity

- First-mover advantages will accrue to whichever jurisdiction acts first

But the generational consequences may be most devastating:

- **Youth exodus accelerates**: Alberta's brightest young people will continue fleeing to wherever they can afford to build lives. The province loses not just individuals but entire generations of human capital and future tax base.
- **Birth rates continue collapsing**: Alberta's fertility rate (1.41 children per woman in 2024) is already 34% below replacement.[11] Without structural change in housing affordability and family viability, this accelerates toward demographic collapse.
- **Aging population death spiral**: As young workers leave and birth rates crater, the remaining population ages rapidly. Tax base shrinks while healthcare and pension obligations explode. The province becomes financially unsustainable.
- **Institutional legitimacy evaporates**: Each generation that sees home ownership and family formation as impossible becomes more radicalized, less engaged, less willing to participate in institutions they view as rigged against them. Social cohesion fractures.
- **Resource curse deepens**: Alberta remains locked in commodity extraction while its human potential – the ultimate resource – drains away. The province becomes a cautionary tale: wealthy in ground but impoverished in opportunity.

Other jurisdictions are exploring similar frameworks. Switzerland's WIR Bank demonstrates 90 years of operational viability. MakerDAO has tokenized billions in real-world assets. Singapore, Estonia, and Wyoming are actively examining wealth-backed monetary systems.

The question isn't whether hypothecation money will become available – it's whether Alberta will lead, follow, or miss the transformation entirely while watching its youth and future depart for jurisdictions that acted.

7.5 The Challenge

Alberta: you have the wealth, the authority, the technical capability, and the economic necessity.

More urgently, you have a generation of young people who are watching, waiting, and deciding whether to build their futures here or elsewhere. They understand – with painful clarity – that the current system is structurally rigged against them. They see 10-15 year income multiples for housing where their parents faced 3-5. They calculate decades of interest payments that will never build anything or create anything. They recognize that family formation is economically impossible under current monetary structures.

They are losing confidence not because they lack ambition or capability, but because the mathematics is undeniable. And they are making rational decisions: leave for jurisdictions where labour creates wealth, or accept childlessness and asset poverty.

The missing monetary element that has shaped centuries of economic pathology can be made available to your citizens. The architecture is designed. The legal foundation is established. The technology exists.

[11] Statistics Canada. "Fertility rates and number of children per woman, by province and territory, 2023" (2024). This Statistics Canada report documents provincial fertility rates for 2024, showing Alberta's total fertility rate at 1.41 children per woman, significantly below the replacement rate of 2.1 children per woman required to maintain population levels without immigration. The data demonstrates the demographic crisis facing Alberta and other Canadian provinces, with fertility rates continuing their multi-decade decline.

Will you be the jurisdiction that completes the monetary framework? Will you demonstrate to the world that labour can be valued equally to capital, that economic growth need not require debt growth, that citizens can retain rather than forfeit their assets, that young people can form families and build futures?

Or will you cede this transformative advantage to others and watch as capital, talent, innovation, and your youth flow to jurisdictions that saw what you could not – or would not – see?

The missing element is no longer missing from theory. It's missing only from implementation.

Your young people are making irreversible decisions about where to build their lives. Your birth rates are collapsing. Your future is departing.

Alberta's moment has arrived. The only question is whether Alberta will seize it – before the generation that could build that future chooses to build it elsewhere.

8 Conclusion: The Element That Completes Everything

For centuries, civilians have had two monetary options: sell something or borrow something. The third option – hypothecate something – existed but was reserved for banks through regulatory privilege.

This restriction shaped the modern economy in ways we've grown to accept as natural: labour systematically undervalued relative to capital, debt growing faster than any economy can sustain, assets flowing to money issuers through foreclosure on debts that need never have existed.

These pathologies aren't failures of policy or morality. They're structural consequences of a missing element – consequences as predictable as a suspension system that lacks an inerter or a circuit that lacks a memristor.

The element isn't actually missing. Banks use it daily. It's missing *from us*.

Completing the monetary framework – making hypothecation money available to ordinary citizens – would transform economic life as profoundly as the inerter transformed vehicle dynamics or the memristor is transforming computing. The theory predicts it. The technology enables it. The benefits beckon.

And for Alberta specifically, the opportunity is extraordinary. Unique constitutional authority, massive attestable wealth, proven capacity for financial innovation, urgent economic necessity, and a complete implementation blueprint in the Alberta Buck system. No other jurisdiction on Earth combines all these elements.

The missing monetary element has been identified. The architecture has been designed. The legal foundation has been established. The technology exists.

What remains is will – the political courage to see what banks have monopolized and make it available to everyone, the vision to recognize that Alberta's future prosperity need not depend on resource extraction but can stem from monetary innovation, the boldness to lead rather than follow.

Alberta: the world is watching. The missing element awaits. Your moment has arrived.

Will you complete the monetary framework?