

# **The Fiat–Credit Allocation Theorem: A Law of Motion for the Post-Bretton Woods Economy**

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## Abstract

This paper introduces the Fiat-Credit Allocation Theorem (FCAT), developed by Aaron Black. Since the collapse of Bretton Woods in the early 1970s, advanced economies have operated under a distinct monetary and financial regime characterized by pure fiat currencies, elastic bank credit creation, and widespread securitization of cash flows. The Fiat–Credit Allocation Theorem (FCAT) is a structural law governing credit allocation in this post-1971 era. In a fiat system with low-friction securitization, credit endogenously expands into securitizable assets whenever their perceived risk-adjusted expected returns exceed the system-wide required return on risky capital ( $\bar{r}$ ), and contracts when returns fall below this hurdle rate. In equilibrium, risk-adjusted returns on funded securitized cash flows converge to  $\bar{r}$ , creating a yield-arbitrage mechanism that drives sustained asset-price inflation, financialization, rentier dominance, and recurrent credit-driven booms and busts. The theorem formalizes this process in a minimal continuous-time framework, proves convergence under mild assumptions, and interprets key post-Bretton Woods phenomena—decoupled capital returns from wage growth, persistent  $r > g$  dynamics, and leverage cycles—as equilibrium outcomes rather than anomalies. Empirical proxies, including yield convergence across securitized asset classes post-1971, support the model's predictions. FCAT provides a unified micro-founded explanation for the regime shift from production-constrained credit to yield-chasing credit, with implications for inequality, affordability in essential sectors, and the limits of supply-side reforms.

**Keywords:** fiat money, endogenous credit, credit allocation, securitization, yield arbitrage, asset pricing, financialization, rentier capitalism, post-Bretton Woods, required return, asset-price inflation, credit cycles, leverage cycles, Piketty  $r > g$ , financial frictions, safe-asset shortage, Post-Keynesian macro, endogenous money, yield convergence, business cycles, inequality dynamics, monetary regime shift, collateral constraints, macro-finance.

## **Introduction**

Since the collapse of Bretton Woods and the end of formal dollar–gold convertibility in the early 1970s, there has been broad agreement that advanced economies have operated under a different monetary and financial regime. Major currencies are now pure fiat; central banks set short-term interest rates rather than defend parities; and private balance sheets, especially those of banks and non-bank financial intermediaries have expanded dramatically. Over the same period, private credit relative to GDP has risen to historically unprecedented levels, and the architecture of finance has been transformed by securitization, derivatives, and global capital flows.

The symptoms of this regime change are by now familiar. Asset prices, particularly for housing and other yield-bearing assets, have outpaced incomes for decades. The financial sector has grown in size and profitability, and rentier income from owning financial and real assets has become more central to accumulation than income from production. Advanced economies have experienced repeated credit-driven booms and busts, most notably in the late 1980s, the early 2000s, and 2008–09, yet broad consumer-price inflation has often remained moderate outside of specific episodes. We thus possess a long list of empirical regularities and partial narratives about “what changed” after Bretton Woods, but we lack a simple structural law of motion that

characterizes how credit and returns are organized in this post-1971 regime. This paper proposes such a law.

At the core of this paper is a simple claim about how the post-Bretton Woods system actually works. Once you have pure fiat money, banks that can expand their balance sheets elastically, and a wide menu of securitized assets, the basic rule of the game is: credit chases yield.

Whenever some cash flow that can be turned into a tradable asset appears to offer a risk-adjusted return above the system's hurdle rate  $\bar{r}$ , banks and investors expand credit into it; when it appears to offer less, they pull credit back. In equilibrium, this process drives the expected returns on all funded securitized cash flows toward  $\bar{r}$ . Asset-price inflation, the rise of finance and rentier income, and recurrent credit-driven booms and busts are not anomalies layered on top of this regime; they are the natural consequences of this underlying allocation law.

Many authors have argued that the demise of Bretton Woods marked a deep structural shift. Post-Keynesian and stock-flow consistent approaches treat money and credit as endogenous, emphasize balance sheets rather than exogenous "money stocks," and analyze financial fragility in a world of bank-created credit, following Minsky, Moore, Godley and others. Work on financialization and rentier capitalism documents the rising weight of finance in profits and governance, the ascendancy of shareholder value, and the growing importance of rent extraction from asset ownership (as in Epstein, 2005; Krippner, 2005; Christophers, 2019, 2020, and related literatures). Mainstream macro-finance models with financial frictions describe leverage cycles, collateral constraints, and safe-asset shortages, while Piketty's work on  $r > g$  (Piketty, 2014) highlights the divergence between returns on private wealth and the growth rate of income in recent decades.

What is missing, however, is a simple structural theorem that captures the core allocative logic of the post-1971 regime. Existing accounts tell us that there is more credit, more finance, more rentier income, and often  $r > g$ , but they do not provide a minimal statement of the law that governs how credit and expected returns are organized once money is fiat and cash flows are broadly securitized. This paper proposes such a law: in a fiat system with elastic bank credit and securitization, expected risk-adjusted returns on funded securitized assets must converge to a system-wide required rate of return  $\bar{r}$ . The rest of the paper spells out this theorem formally and explores its implications for asset prices, business cycles, and the structure of the post-Bretton Woods economy.

Formally, the paper considers a continuum-time environment with a finite set of securitizable assets  $i = 1, \dots, N$ , each paying an expected real cash flow  $D_i$  and trading at price  $P_i$ , with perceived risk-adjusted expected total return  $E(R_i)$  (including income yield, expected capital gains, and losses). Let  $C_i(t)$  denote the volume of credit funding asset  $i$ . Credit supply is elastic and adjusts according to a simple behavioral rule,

$$\frac{dC_i}{dt} = \kappa_i [E(R_i) - \bar{r}], \kappa_i > 0,$$

where  $\bar{r}$  is the system's required real return on risky capital. Under mild regularity conditions on how prices and perceived returns depend on credit, any stable stationary allocation  $\{C_i^*\}$  with  $C_i^* > 0$  must satisfy

$$E(R_i^*) = \bar{r} \text{ for all funded securitized assets } i.$$

Put simply: In a fiat system credit expands until yields fall to the required return of capital.

More complexly: in a fiat system with securitization, credit expands into an asset until its yield falls to the required return on capital, and retreats when it falls below that benchmark.

In other words, in a fiat system with elastic credit and securitization, the credit system behaves as a yield-arbitrage machine: it expands into any securitized cash flow whose expected return exceeds  $\bar{r}$  and withdraws from those below  $\bar{r}$ , until the risk-adjusted expected returns on funded assets are driven to the common hurdle rate.

The theorem provides a common mechanism behind several features of the post-Bretton Woods era that are usually treated separately. First, it explains the sustained rise of valuations on housing and other yield-bearing assets relative to incomes: elastic credit bids up the prices of any securitized cash flow until its risk-adjusted return is compressed to  $\bar{r}$ . Second, it accounts for the persistence of capital-income returns that are decoupled from wage and output growth whenever  $\bar{r} > g$ : securitized assets are systematically priced to the capital-market hurdle rate, while labor incomes remain tied to productivity and demographics. Third, it helps make sense of credit-driven business cycles, in which recessions appear as balance-sheet events: when expected returns are revised downward, the same mechanism that previously expanded credit now forces contraction and asset-price declines until the yield-convergence condition is restored. One important application, developed in separate work introduces the Rentier Asset Impossibility Theorem (Black, 25), is to cases where the dominant securitized cash flows are claims on essential goods and services.

This paper makes four contributions. First, it introduces and proves the Fiat-Credit Allocation Theorem in a minimal continuous-time framework where credit is endogenously created and

allocated in response to perceived risk-adjusted returns on securitized assets. Second, it interprets key features of the post-1971 era—asset-price inflation, financialization, and credit-driven recessions—as equilibrium manifestations of this allocative law rather than as exogenous pathologies. Third, it shows how, whenever the required return on securitized assets  $\bar{r}$  exceeds the growth rate of wages and output  $g$ , FCAT provides a micro-founded mechanism capable of generating Piketty-style  $r > g$  dynamics in a fiat–securitization regime. Finally, it outlines how FCAT can be specialized to the case where securitized assets are claims on essential goods and services, thereby setting the stage for the Rentier–Asset Impossibility Theorem, which analyzes the incompatibility between asset-pricing of essentials and long-run broad affordability and demographic stability.

The rest of the paper is organized as follows. Section 2 describes the institutional environment of the post-Bretton Woods regime, focusing on fiat money, bank credit creation, securitization, and the role of the required return  $\bar{r}$ . Section 3 presents the basic model, states the Fiat–Credit Allocation Theorem formally, and provides a proof. Section 4 examines the dynamic implications of the theorem, including steady-state credit equilibria, asset-price inflation, bubbles, and recessions as credit-clearing episodes. Section 5 relates the framework to the historical experience of the past fifty years, highlighting stylized facts that are consistent with the theorem. Section 6 situates the contribution within the Post-Keynesian, financialization, and mainstream macro–finance literatures, and connects it to the debate on  $r > g$ . Section 7 concludes and outlines directions for future work, including the application of FCAT to essential-goods sectors developed in the Rentier–Asset Impossibility Theorem.

## **Intuition**

In modern economies, most money is created by banks when they make loans, not by the government printing cash. Banks don't lend randomly. They lend wherever they think they can earn the best return for the risk. Over time, this creates a powerful pattern: credit keeps flowing into things that can be turned into financial assets (like houses, stocks, bonds, and fees) while things that can't be turned into assets—like wages—get left behind.

Because banks and investors can easily borrow more money to buy assets, prices of those assets keep rising. Higher prices then attract even more borrowing, which pushes prices up again. This feedback loop makes asset values grow much faster than paychecks. When people say “the economy is doing great” because markets are up, FCAT explains why many workers don't feel it: the system is built to protect and grow asset values first, not incomes.

Eventually, if asset prices stop rising or people doubt they'll keep paying off, lending suddenly slows or reverses. That's when recessions happen. To stop everything from collapsing, the government and central bank step in to support banks and asset markets, which often saves the system but leaves regular people dealing with layoffs, slower wage growth, and higher living costs. In short, FCAT explains why modern economies boom through asset prices, crash through credit, and keep pushing the costs onto workers rather than owners of assets.

## **2. Institutional Environment**

### **2.1 From constrained money to fiat**

Before the breakdown of Bretton Woods, monetary systems in advanced economies operated under explicit external constraints. Central banks were ultimately tied, directly or indirectly, to a gold or reserve anchor; fixed exchange rate commitments and reserve requirements imposed upper bounds on the growth of bank balance sheets. In such a regime, the supply of credit was effectively constrained by the availability of reserves and by the need to defend a parity. Banks could expand lending only to the extent that they could secure funding consistent with these constraints, and monetary tightening meant actively restricting the quantity of reserves and credit.

The post-1971 regime is different in kind. Once major currencies moved to fiat and central banks assumed the role of lender of last resort and market-maker in government securities, the binding constraint on aggregate credit creation ceased to be an external resource and became a set of internal policy and risk considerations. Commercial banks can expand their balance sheets as long as they can fund themselves at the policy rate and satisfy regulatory capital and liquidity requirements; central banks, in turn, stand ready to supply reserves elastically at that rate. In practice, this means that credit supply is highly elastic conditional on perceived returns and risk: the limiting factor is no longer a fixed stock of reserves or gold, but whether loans and securities appear to offer acceptable risk-adjusted returns relative to their funding cost.

In a forthcoming paper, I argue that late-stage systems tend to migrate toward fiat-style monetary regimes for two related structural reasons. First, claim intensity rises: over time, societies accumulate a dense stack of enforceable promises—public debts, implicit guarantees, entitlement-like commitments, protected rents, and institutionalized transfer obligations—that become politically and administratively difficult to compress. As discretionary fiscal slack shrinks, the state faces mounting pressure to preserve the nominal integrity of these claims

without resorting to overt default or large explicit redistribution. In this setting, monetization and fiat instruments function as a stabilizing technology: they relax external settlement constraints and expand the state's capacity to intermediate and roll over the existing promise stack.

Second, the move toward fiat is reinforced by shrinking frontiers and the declining ease of real growth. As high-return expansion opportunities are exhausted, generating surplus through frontier growth becomes slower, riskier, and more politically constrained, while the relative attractiveness of claim-based returns increases. This is where the logic connects directly to FCAT: in a fiat regime with elastic credit and securitization, the financial system can scale profitability by converting existing and expected cash flows into tradable claims and arbitraging them toward the system's required return. In late-stage conditions, this makes the "ownership and capitalization" channel a higher-throughput route to returns than the "build new capacity" channel. The transition to fiat, on this view, is not merely a monetary event; it is a structural adaptation to a world in which preserving and pricing claims becomes easier than expanding the frontier that would otherwise service them.

## **2.2 Banks and endogenous credit creation**

In this FIAT environment, banks do not primarily intermediate a pre-given pool of "savings" into loans. Instead, they create new deposits when they extend credit: a loan to a household or firm simultaneously generates a matching deposit on the liability side of the balance sheet. From the perspective of the non-bank sector, most of the relevant "money" in circulation is therefore the counterpart of outstanding bank credit, not an exogenous stock handed down by the central bank.

Under a fiat regime with backstopped liquidity, there is no hard upper bound on the nominal quantity of such credit. Regulatory ratios constrain the composition and riskiness of bank portfolios, and funding costs are anchored by the policy rate and term structure, but there is no intrinsic scarcity of reserves in the way that there was under a gold or fixed-parity system. The operative question for a bank considering a new loan or security purchase is thus not “are there enough savings?” but “does this asset yield a sufficient risk-adjusted return over funding costs, and can it be funded within capital and liquidity constraints?” In other words, the supply of credit adjusts endogenously to the perceived profitability of lending into particular cash flows.

### **2.3 Securitizable cash flows**

A central feature of the contemporary financial system is the widespread securitization of relatively predictable payment streams. By a “securitized cash flow” I mean a claim on an underlying set of payments that can be pooled, structured, and traded as a standardized asset: mortgage payments, residential and commercial rents, hospital and clinic revenues, regulated utility bills, student loan repayments, credit-card receivables, and so on. These flows can be aggregated into bonds, pass-through securities, or equity-like vehicles and sold to a broad investor base.

Low frictions in this securitization process are critical. Once a cash flow can be reliably measured, pooled, and serviced, it can typically be leveraged—used as collateral for further borrowing—and rehypothecated within dealer and shadow-bank balance sheets. This produces deep secondary markets in which prices and yields on these cash-flow claims are continuously quoted and arbitrated. In such a setting, large parts of the income generated by households and

firms do not remain as bilateral relationships between debtor and creditor; they are transformed into tradable yield-bearing assets whose returns are directly compared to other securities in global portfolios.

## **2.4 The required return on capital**

Within this securitized environment, investors evaluate positions against a benchmark required real return on risky capital, which I denote by  $\bar{r}$ . This  $\bar{r}$  can be interpreted as the system's hurdle rate: the risk-adjusted real return that diversified investors demand to hold claims on uncertain cash flows rather than safe assets. In practice it is shaped by long-run return expectations, institutional mandates (for pensions, insurers, endowments), and the global configuration of portfolios, and it sits above the real funding cost implied by the policy rate and inflation expectations.

The central idea of the Fiat–Credit Allocation Theorem is that, given elastic credit supply and low-friction securitization, credit creation will expand or contract until observed risk-adjusted expected returns on securitized cash flows are driven toward  $\bar{r}$ . When an asset backed by a particular cash flow appears to yield more than  $\bar{r}$ , banks and investors have an incentive to create and allocate additional credit to that asset, bidding up its price and compressing its expected return. When its expected return falls below  $\bar{r}$ , credit supply to that asset is withdrawn or redirected. In equilibrium, for any funded class of securitized cash flows, the expected return must therefore be close to  $\bar{r}$ ; this yield-convergence property is the allocative law that the theorem formalizes.

## **2.5 The Required Return $\bar{r}$**

Throughout,  $\bar{r}$  should be read as the prevailing benchmark required return on risky securitized assets, not as an immutable constant; the theorem is local in time and conditional on that benchmark. The Fiat–Credit Allocation Theorem is stated in terms of a system-wide required real return on risky capital,  $\bar{r}$ . It is important to be clear about what is and is not assumed about this object. I do not treat  $\bar{r}$  as a fixed constant independent of policy, risk, or global conditions. Rather,  $\bar{r}$  should be understood as the *benchmark risk-adjusted return* that diversified investors require to hold securitized claims on uncertain cash flows, conditional on the prevailing monetary–financial regime.

In practice,  $\bar{r}$  is shaped by the configuration of the term structure and policy rates, by inflation expectations, by risk premia, and by institutional mandates (for example, the return targets of pension funds and insurers). Over long horizons,  $\bar{r}$  can and does move as these determinants change. The theorem does not deny this; it characterizes the short-to-medium-run law of motion for credit conditional on a given  $\bar{r}$ . The key assumption is that credit allocation across assets adjusts more quickly than  $\bar{r}$  itself, so that at any point in time investors act as if there is a prevailing hurdle rate against which prospective returns are evaluated.

This perspective is complementary to, rather than in conflict with, the mainstream view that the central bank’s policy rate is a crucial anchor for the system. The policy rate pins down the short risk-free return and, via expectations and term premia, influences the entire yield curve. The required return  $\bar{r}$  used in the theorem can be viewed as a *risk-adjusted extension of this anchor*—a function of the policy rate, inflation expectations, term premia, and risk premia. When the central bank eases policy or compresses term premia,  $\bar{r}$  will tend to fall; when it tightens or risk premia rise,  $\bar{r}$  will tend to rise. FCAT is agnostic about the deeper determinants of  $\bar{r}$ ; it simply

states that, for any given  $\bar{r}$ , elastic credit and securitization will bid the expected returns on funded securitized cash flows toward that benchmark.

In this sense,  $\bar{r}$  is neither a free parameter nor a metaphysical constant. It is an endogenous outcome of monetary policy, risk appetite, regulation, and portfolio composition at the level of the whole system, but it is taken as given by the individual banks and investors who decide whether to expand or contract credit to a particular cash flow. The theorem then describes how, conditional on this benchmark, the credit system behaves like a yield-arbitrage machine: expanding into any securitized cash flow whose expected return exceeds  $\bar{r}$  and withdrawing from those below, until convergence is achieved.

## **2.6 Scope: What counts as a securitized asset?**

The theorem is stated for “funded securitized assets,” so it is important to be clear about what is and is not included in that category. In this paper, a securitized asset is any claim on a stream of payments that (i) can be held by diversified portfolios (banks, mutual funds, insurers, pension funds, asset managers), (ii) is priced in a reasonably deep secondary market or by mark-to-market conventions, and (iii) can be funded on expandable balance sheets (through deposits, wholesale funding, repo, or similar mechanisms). This definition encompasses not only familiar structured products such as mortgage- and asset-backed securities, but also traded corporate bonds and loans, public equity (claims on corporate cash flows), REITs, infrastructure and utility stocks, revenue bonds, and a large part of the contemporary “private credit” universe.

By contrast, the theorem is not intended as a universal description of all assets in the economy. Purely idiosyncratic, non-tradable claims—small family businesses, informal credit relationships, and, above all, direct labor income—do not satisfy the assumptions of deep

secondary markets and balance-sheet funding, and so lie only partially within its scope. In the framework developed here, these non-securitized activities are best thought of as residual claimants: their returns and wages adjust after the pricing of securitized cash flows has been determined by the credit–portfolio complex.

Government bonds occupy an intermediate position. They are, in principle, securitized claims on tax revenues, but in practice they function as the system’s primary “safe assets” and as policy instruments of the central bank. For that reason, I treat the pricing of safe government debt as largely determined by monetary policy and safe-asset demand, and focus the theorem on risky securitized assets whose expected returns include a non-trivial risk premium and are therefore natural targets for yield-driven credit allocation. The required return  $\bar{r}$  can be understood as a benchmark risk-adjusted return on such risky securitized assets, given the prevailing configuration of policy rates, inflation expectations, term premia, and risk premia.

This circumscribed scope is a feature rather than a limitation. The post-1971 era has seen a steady expansion of the domain of securitized and fund-held claims: mortgages, rents, healthcare and tuition revenues, utilities, infrastructure, and consumer credit have all been progressively drawn into the asset universe. As a growing share of household and corporate cash flows satisfy the conditions above, a growing share of the economy is governed by the yield-convergence logic described by the Fiat–Credit Allocation Theorem. The empirical question of how much of the modern economy falls within this securitized domain is therefore not an objection to the theorem, but one of the main ways in which it can be operationalized and tested.

## **2.7 Real Constraints and Non-Financial Drivers**

The analysis in this paper focuses on the allocation of credit and the pricing of securitized cash flows in a fiat regime. It does **not** deny the importance of non-financial forces—technological change, demographics, and globalization—for the long-run evolution of productivity, wages, and sectoral cash flows. Rather, these forces enter the framework through the “real” primitives: the growth rate of aggregate income and wages  $g$ , and the level and distribution of underlying cash flows  $D_i$ .

Technological change affects the productivity of labor and capital, and thus the growth rate of real wages and output  $g$ . Demographic shifts shape labor supply, savings behavior, and the composition of demand. Globalization and trade integration influence wage bargaining power, offshoring decisions, and the distribution of income between labor and capital. All of these factors help determine the paths of  $\{D_i\}$  and of  $g$ , and in that sense they are **prior** to the financial mechanism analyzed here.

The Fiat–Credit Allocation Theorem should therefore be read as a conditional financial law: *given* the cash-flow structure generated by technology, demographics, and globalization, and *given* a prevailing benchmark required return  $\bar{r}$ , elastic credit and securitization will reallocate balance sheets until risk-adjusted expected returns on funded securitized assets converge to  $\bar{r}$ . The theorem does not attempt to explain why  $g$  is low or why particular sectors have the cash flows they do; it explains how, once those real outcomes are in place, the credit system prices and capitalizes the associated income streams.

Conversely, non-financial forces also influence  $\bar{r}$  itself, insofar as they affect long-run growth expectations, risk premia, and portfolio composition. In a slow-growth, aging, globalized economy, it may be difficult for institutional investors to reconcile return targets with

fundamentals without aggressive use of leverage and securitization. FCAT is agnostic about the deeper determinants of  $\bar{r}$ ; it simply states that for any given configuration of  $\{D_i\}$ ,  $g$ , and  $\bar{r}$ , a fiat–securitization regime will behave like a yield-arbitrage machine, expanding credit into any securitizable cash flow whose expected return exceeds  $\bar{r}$  and withdrawing from those below it.

In this sense, the theorem does not “explain away” technological change, demographics, or globalization. It complements those explanations by specifying how the modern financial system translates real constraints and shocks into asset valuations, balance-sheet structures, and credit-driven cycles.

### **3. The Fiat–Credit Allocation Theorem**

This section formalizes a simple idea: in a fiat monetary system, credit expands until the yields on securitized cash flows fall to the required return on capital.

#### **3.1 Basic setup**

Consider a set of securitizable assets indexed by  $i = 1, \dots, N$ . Each asset  $i$  is a claim on an underlying real cash-flow stream with expected real payoff  $D_i$  per period. The market price of asset  $i$  is  $P_i$ , and we allow this price to depend (possibly indirectly) on the volume of credit  $C_i$  allocated to that asset class: more credit flowing into a given cash-flow stream will, in general, raise its price.

The one-period income yield on asset  $i$  is defined as

$$y_i \equiv \frac{D_i}{P_i}.$$

In addition to this running yield, investors may expect capital gains or losses and default or impairment risk. Let  $E(R_i)$  denote the perceived risk-adjusted expected total return on asset  $i$ , combining income yield, expected capital gains, and expected losses:

$$E(R_i) \equiv y_i + E\left[\frac{\Delta P_i}{P_i}\right] - \text{loss}_i.$$

Let  $\bar{r}$  denote the required real return on risky capital in this system, the hurdle rate that diversified investors seek to earn on securitized assets. In the background sits a fiat monetary regime in which commercial banks and other credit intermediaries can expand their balance sheets subject to regulatory and funding constraints, and central banks provide elastic liquidity at the policy rate.

We make three institutional assumptions:

1. **Elastic fiat credit.** Aggregate credit

$$C = \sum_{i=1}^N C_i$$

can expand as long as sufficiently many assets appear to offer risk-adjusted expected returns above funding costs; there is no hard exogenous ceiling on nominal credit.

2. **Deep, competitive capital markets.** Investors can freely reallocate portfolios across securitized assets, arbitraging perceived return differentials.

3. **Low-friction securitization and intermediation.** The cash flows  $D_i$  can be packaged, held, and traded with relatively low transaction costs, so that observed prices and returns on these assets are continuously updated and comparable.

Within this environment, the key allocative question is: how does credit distribute itself across the set of securitized cash flows  $i = 1, \dots, N$  in the long run?

### 3.2 Behavioral credit rule

To formalize this, we posit a simple behavioral rule for the evolution of credit allocated to each securitized asset class. Let  $C_i(t)$  denote the stock (or effective flow) of credit funding asset  $i$  at time  $t$ . We assume that credit supply adjusts in response to deviations of perceived expected return from the required return  $\bar{r}$ :

$$\frac{dC_i}{dt} = \kappa_i [E(R_i) - \bar{r}], \kappa_i > 0.$$

Here  $\kappa_i$  is a responsiveness parameter capturing how aggressively banks and investors expand or contract exposure to asset  $i$  when they perceive a return gap.

- If  $E(R_i) > \bar{r}$ , then  $\frac{dC_i}{dt} > 0$ : credit flows **into** asset  $i$ . More lending, more balance-sheet capacity, and more investor demand are directed toward that cash-flow stream.
- If  $E(R_i) < \bar{r}$ , then  $\frac{dC_i}{dt} < 0$ : credit flows **out of** asset  $i$ . Funding is withdrawn, positions are reduced, and balance sheets shrink.

- If  $E(R_i) = \bar{r}$ , then  $\frac{dC_i}{dt} = 0$ : credit to that asset is locally stable.

This rule should be understood as a reduced-form representation of a wide range of micro-level behaviors: loan officers grow or shrink particular books, securitization desks ramp issuance up or down, portfolio managers rebalance across asset classes, and so on. The essential idea is that, under fiat, credit is created and allocated in response to perceived excess return, not out of a fixed pool of exogenous savings.

### 3.3 Theorem

We can now state the allocative result informally:

#### **Fiat–Credit Allocation Theorem (FCAT).**

In a fiat monetary system with elastic credit supply, deep capital markets, and low-friction securitization, if credit to each securitized asset class adjusts according to the rule

$$\frac{dC_i}{dt} = \kappa_i [E(R_i) - \bar{r}],$$

then any stable equilibrium allocation of credit across securitized cash flows must satisfy

$$E(R_i^*) = \bar{r} \text{ for all funded securitized assets } i \text{ with } C_i^* > 0.$$

That is, credit creation endogenously expands or contracts until the risk-adjusted expected return on each funded securitized cash-flow stream is driven to the required return on capital.

In other words, in a fiat–securitization regime, credit acts as a yield-arbitrage mechanism. Any securitized asset that appears to offer more than  $\bar{r}$  attracts credit until its return is compressed down to  $\bar{r}$ ; any asset that appears to offer less loses credit until its return rises or the asset ceases to be funded.

### 3.4 Formal proof sketch

To make this precise, we collect the main assumptions as follows:

- **A1 (Assets and cash flows).** There are  $N$  securitizable assets  $i = 1, \dots, N$ , each with expected real cash flow  $D_i > 0$ .
- **A2 (Prices and credit).** The price of asset  $i$  is a continuously differentiable function  $P_i(C_i)$ , with  $P'_i(C_i) > 0$ : additional credit allocated to asset  $i$  raises its price.
- **A3 (Expected returns).** Perceived risk-adjusted expected total return on  $i$  is

$$E(R_i) = \frac{D_i}{P_i(C_i)} + G_i(C_i) - L_i(C_i),$$

where  $G_i$  captures expected capital gains and  $L_i$  expected losses or impairments, both continuous in  $C_i$ .

- **A4 (Monotonicity).** For each funded asset  $i$ ,  $E(R_i)$  is strictly decreasing in  $C_i$ : increasing credit into an asset (raising its price and leverage) reduces its risk-adjusted expected return.
- **A5 (Credit adjustment).** Credit evolves according to

$$\frac{dC_i}{dt} = \kappa_i [E(R_i) - \bar{r}], \kappa_i > 0,$$

with  $\bar{r}$  fixed and common across assets.

A **stationary allocation**  $\{C_i^*\}$  is defined as a vector of credit stocks such that  $\frac{dC_i}{dt} = 0$  for all  $i$ . We

can now state the theorem:

**Theorem 1 (Fiat–Credit Allocation Theorem, formal).**

Under assumptions A1–A5, any stationary allocation  $\{C_i^*\}$  with  $C_i^* > 0$  for asset  $i$  must satisfy

$$E(R_i^*) = \bar{r}, \text{ for all } i \text{ with } C_i^* > 0.$$

Assets with  $E(R_i^*) < \bar{r}$  cannot be funded in equilibrium and must have  $C_i^* = 0$ .

*Proof sketch.*

At a stationary allocation, by definition,

$$\frac{dC_i}{dt} = \kappa_i [E(R_i^*) - \bar{r}] = 0 \text{ for all } i.$$

Because  $\kappa_i > 0$ , this implies

$$E(R_i^*) - \bar{r} = 0 \Rightarrow E(R_i^*) = \bar{r}$$

for any asset with  $C_i^* > 0$ . Suppose, to the contrary, that for some funded asset  $j$  with  $C_j^* > 0$  we had  $E(R_j^*) > \bar{r}$ . Then  $\frac{dC_j}{dt} > 0$ , so  $C_j$  would be increasing, contradicting stationarity. If instead  $E(R_j^*) < \bar{r}$  at  $C_j^* > 0$ , then  $\frac{dC_j}{dt} < 0$ , and credit to asset  $j$  would be shrinking; in the limit, either  $C_j$  falls to zero or, by A4,  $E(R_j)$  rises back toward  $\bar{r}$ . Hence, in any stationary allocation with  $C_j^* > 0$ , we must have  $E(R_j^*) = \bar{r}$ .

Assumption A4 guarantees that this fixed-point condition is not only necessary but attractive: if  $E(R_i) > \bar{r}$ , then  $\frac{dC_i}{dt} > 0$  and the induced rise in  $P_i(C_i)$  plus any associated change in  $G_i$  and  $L_i$  reduces  $E(R_i)$  toward  $\bar{r}$ ; if  $E(R_i) < \bar{r}$ , the opposite adjustment occurs. Under mild regularity conditions on  $P_i, G_i, L_i$ , this defines a stable yield-convergence dynamic toward the set of assets whose risk-adjusted expected returns equal the hurdle rate and away from any asset whose returns cannot be brought up to  $\bar{r}$  even as credit is withdrawn.

The theorem therefore formalizes a simple but powerful allocative property: in a fiat system with elastic credit and securitized cash flows, credit expansion and contraction drive the expected returns on funded securitized assets to the required return on capital  $\bar{r}$ . This is distinct from, but consistent with, standard no-arbitrage pricing: here, it is not a fixed pool of savings but the endogenous creation and allocation of credit that enforces convergence of returns.

### **3.5 Relation to $r > g$**

Although the theorem is stated entirely in terms of returns on securitized assets, it has immediate implications for the familiar inequality  $r > g$ . In this setting,  $\bar{r}$  is a capital-market object: it reflects investors' required real return on risky claims, shaped by risk preferences, institutional

mandates, and the global portfolio structure. By contrast, the growth rate of real wages and aggregate output,  $g$ , is determined primarily by technological progress, capital deepening, and demographic trends.

FCAT does not assume  $r > g$ ; rather, it describes a mechanism through which observed returns on securitized assets are pinned to  $\bar{r}$ , regardless of the rate at which typical labor incomes grow. If the institutional and macroeconomic environment is such that  $\bar{r}$  is persistently above  $g$ —for example, because investors demand high real returns in a slow-growing economy—then the theorem implies that securitized cash flows will continue to be priced to that higher  $\bar{r}$ , while labor income growth remains anchored near  $g$ . The result is a structural wedge between the return on capital and the growth of wage income.

That wedge is the object that subsequent work (such as the Rentier–Asset Impossibility framework) will act upon: when the dominant securitized cash flows are claims on essential goods and services, FCAT’s yield-convergence logic implies that their prices will be driven by  $\bar{r}$ , not by median wage growth, with predictable consequences for affordability, distribution, and macro stability.

### **3.6 Discussion: The Role and Determination of the Required Return $\bar{r}$**

The theorem is stated in terms of a benchmark required real return on risky securitized assets,  $\bar{r}$ . I do not treat  $\bar{r}$  as an immutable constant or as a free exogenous parameter. At the level of the whole system,  $\bar{r}$  is an outcome of monetary policy, inflation expectations, term premia, risk premia, regulation, and institutional mandates. In that sense, it is endogenous to the broader monetary–financial regime.

The Fiat–Credit Allocation Theorem should therefore be read as a conditional law of motion for credit, not as a full theory of the determination of  $\bar{r}$ . The key assumption is a separation of time scales. On the short- to medium-run horizon relevant for credit allocation across asset classes, individual banks and portfolio managers take a prevailing hurdle rate as given: they are judged, remunerated, and constrained relative to return targets and solvency rules that are embedded in governance structures and revised only gradually. Institutional return targets for pension funds and insurers, for example, are typically set over multi-year horizons, while loan origination volumes and portfolio allocations across sectors can be adjusted within quarters. The theorem characterizes this **fast dynamic**: conditional on the prevailing benchmark  $\bar{r}(t)$ , credit expands into any securitized asset with  $E(R_i) > \bar{r}(t)$  and contracts from those with  $E(R_i) < \bar{r}(t)$ , and any stable funded configuration must satisfy  $E(R_i^*) = \bar{r}(t)$ .

When I say that  $\bar{r}(t)$  “moves only slowly,” I do not mean that its nominal level is fixed. The policy-driven safe rate and the inflation component of returns can and do move with central-bank actions and macro shocks. What is assumed to be relatively sticky are (i) the risk-premium and mandate components of the required return—for example, the long-run excess return that diversified portfolios demand over safe assets, and (ii) the relative risk ranking of broad asset classes. In other words, the level of  $\bar{r}(t)$  may shift with policy and macro conditions, but the structure of required risk-adjusted returns that governs portfolio decisions changes more slowly than the allocation of marginal credit across particular securitized cash flows. FCAT is agnostic about the deeper determinants of  $\bar{r}(t)$ ; it describes how, *given* a benchmark, the credit system enforces yield convergence across the securitized universe.

This perspective avoids the charge that FCAT is merely an accounting identity. Without elastic credit and securitization, there is no particular reason why a wide variety of heterogeneous cash

flows—mortgages, hospital revenues, utility charges, tuition streams, corporate profits—should all be priced such that their risk-adjusted expected returns cluster tightly around a common benchmark. The theorem identifies a specific mechanism—balance-sheet expansion and contraction in response to perceived excess return—that enforces this convergence in a fiat–securitization regime. The deeper, slower-moving determinants of  $\bar{r}(t)$  are left to existing macro–finance and asset-pricing theories; FCAT is intended to be complementary to, rather than in competition with, those accounts.

This distinction also clarifies the scope of the policy and Rentier Asset Impossibility Theorem (RAIT) (Black, 2025) implications. Changing the composition of securitized and levered cash flows—for example, by restricting the assetization of essential goods and services, or by altering sectoral credit regulation—does not eliminate  $\bar{r}(t)$ . It does, however, alter which income streams are forced to satisfy  $\bar{r}(t)$  through their prices. The claim in this paper, and in the Rentier–Asset Impossibility Theorem that builds on it, is that when core necessities are in the convergence set, their prices are structurally driven by  $\bar{r}(t)$  rather than by median wages. Policy cannot wish away  $\bar{r}(t)$ , but it can decide whether housing, healthcare, energy, and education are organized around that benchmark or insulated from it.

### **3.7 Behavioral Assumptions and Expectations**

The formal statement of the Fiat–Credit Allocation Theorem is deliberately agnostic about the precise process by which expectations are formed. In the baseline version of the model,  $E(R_i)$  is understood as the correctly measured risk-adjusted expected return on asset  $i$ , given its cash-flow prospects and risk. Under that interpretation, the theorem is fully compatible with a rational-

expectations benchmark: *conditional on the true distribution of returns*, elastic credit and securitization will reallocate balance sheets until expected returns on funded securitized assets converge to the benchmark required return  $\bar{r}$ . No assumption of persistent misperception is needed for the core yield-convergence result.

When discussing bubbles and crashes, the analysis allows for the possibility that  $E(R_i)$  reflects perceived rather than fully rational expectations—investors may overestimate future cash flows, underestimate tail risk, or extrapolate past price increases into the future. Mainstream rational-expectations theory often treats such systematic misperceptions as short-lived or as ruled out in equilibrium. The framework here does not require that misperceptions be permanent or universal. It requires only that, over some horizon, a sufficiently large share of the credit-creating sector acts on a common view that certain assets offer returns above  $\bar{r}$ . As long as that view persists, even temporarily, the credit-adjustment rule implies rising  $C_i$ , rising prices  $P_i$ , and falling observable yields, as in standard accounts of credit-driven bubbles.

In this sense, the theorem and its extensions can be read in two layers. At the first layer, with correctly measured  $E(R_i)$ , FCAT is simply a statement about how an elastic-credit, securitized system enforces yield convergence across funded risky assets. At the second layer, when expectations are subject to model uncertainty, regime changes, or heterogeneous beliefs, the same adjustment mechanism explains how credit can amplify misperceptions into large asset-price booms, and how subsequent revisions of  $E(R_i)$  generate abrupt contractions and crashes. Nothing in the argument requires “irrational” agents in the strong sense; it is enough that investors are forward-looking, profit-seeking, and occasionally wrong about the persistence or safety of particular cash flows.

Put differently, FCAT does not hinge on rejecting rational expectations. It characterizes how a fiat–securitization regime allocates credit conditional on whatever expectations market participants currently hold, whether or not those expectations happen to coincide with the true distribution of returns. The empirical content of the theorem lies in the predicted direction of credit flows, toward assets believed to earn more than  $\bar{r}$ , and away from those believed to earn less, not in any particular behavioral micro-foundation for how those beliefs are formed.

#### 4. Dynamic Implications: Steady State, Bubbles, and Recessions

##### 4.1 Steady-state credit equilibrium

The adjustment rule

$$\frac{dC_i}{dt} = \kappa_i [E(R_i) - \bar{r}], \kappa_i > 0$$

induces a simple dynamic on the space of credit allocations. In the benchmark “boring” case, expectations are correct:  $E(R_i)$  coincides with the realized risk-adjusted return on asset  $i$  given its price and risk. Under assumptions A1–A5, this dynamic converges toward allocations  $\{C_i^*\}$  such that, for all funded assets with  $C_i^* > 0$ ,

$$E(R_i^*) = \bar{r}.$$

Intuitively, suppose a particular securitized cash-flow stream  $i$  initially offers a high expected return relative to  $\bar{r}$ . Given elastic credit, banks and investors have an incentive to expand lending and balance-sheet exposure to that asset:  $\frac{dC_i}{dt} > 0$ . As credit flows in, the price  $P_i(C_i)$  rises, leverage generally increases, and the risk-adjusted expected return  $E(R_i)$  falls. This process continues until the excess return has been arbitrated away and  $E(R_i)$  has been compressed to  $\bar{r}$ . Conversely, if an asset's expected return falls below  $\bar{r}$ , credit shrinks ( $\frac{dC_i}{dt} < 0$ ); prices fall, leverage declines, and the expected return rises back toward the hurdle rate or the asset ceases to be funded.

In this steady-state view, credit is neither exogenous nor fixed. It is an endogenous state variable that moves until perceived return differentials are eliminated. The equilibrium implied by the theorem is therefore a yield-convergence configuration: all funded securitized assets earn approximately the required risk-adjusted return  $\bar{r}$ , and no asset with a persistently lower return can attract credit in the long run.

One immediate implication is that any securitized cash-flow stream that initially offers a “high yield” relative to  $\bar{r}$  will tend to experience price appreciation and growing credit exposure until its yield is driven down to the system's hurdle rate. “High yield” in this sense is not a stable feature of the asset; it is a signal that the fiat–credit mechanism will attempt to reprice that stream.

#### **4.2 Asset-price inflation and the repricing of cash flows**

The yield-convergence property has direct implications for asset prices. Consider a securitized asset  $i$  whose expected cash flow  $D_i$  is relatively stable. If, at some initial configuration, its income yield  $y_i = D_i/P_i$  exceeds  $\bar{r}$ , then by Theorem 1 credit will expand into that asset until its expected return is compressed toward  $\bar{r}$ . Holding  $D_i$  fixed, this can happen only via a rise in the price  $P_i$ . Put differently, credit expansion pushes up asset prices not primarily because of physical scarcity, but because it arbitrages away excess yield.

This mechanism is structural rather than episodic. In a fiat regime with elastic credit and deep securitization, any cash-flow stream that can be packaged into a security and made widely investable is a candidate target for this repricing process. As balance sheets expand and investors search for ways to earn  $\bar{r}$ , cash flows that were previously embedded in bilateral relationships—mortgage payments, rents, hospital and clinic revenue, regulated utility bills, tuition, consumer loan payments—are successively transformed into tradeable assets. Each time a new class of flows is securitized and offers returns above  $\bar{r}$ , it is subject to the same dynamic: credit flows in, prices rise, yields fall.

The resulting pattern is what might be called credit-driven asset-price inflation. It differs from standard consumer-price inflation in at least two respects. First, it is concentrated in the prices of assets and securitized income streams rather than in the prices of ordinary, non-assetized goods and services. Second, it operates through the pricing of expected returns rather than through cost-push or demand-pull mechanisms alone: prices are bid up until the implied return on the cash flow matches the system's required return. This helps explain why, in many advanced economies since the 1980s, one observes pronounced and persistent increases in the prices of houses, financial claims, and other yield-bearing assets relative to incomes, alongside comparatively moderate movements in broad consumer price indices.

### 4.3 Asset Bubbles and Crashes

The credit-adjustment mechanism in FCAT,

$$\dot{C}_i = \kappa_i(E[R_i] - \bar{r}),$$

operates on perceived risk-adjusted expected returns. This provides a parsimonious account of credit-driven bubbles: they occur whenever investors systematically mis-measure the total return on a class of securitized assets.

#### (1) Perceived total return governs credit flows

Market participants evaluate

$$E[R_i] = \frac{D_i}{P_i} + E\left[\frac{\Delta P_i}{P_i}\right] - E[\text{losses}_i],$$

the sum of current income yield, expected capital gains, and expected credit losses.

As long as investors believe

$$E[R_i] \geq \bar{r},$$

the adjustment rule implies

$$\dot{C}_i > 0:$$

credit continues to expand and bids up the price of asset  $i$ .

In a well-anchored environment—accurate expectations, stable risk premia—this process arbitrages away excess return until

$$E[R_i] \approx \bar{r}.$$

## **(2) Bubbles emerge when perceived returns deviate from true risk-adjusted returns**

Two types of mismeasurement can produce sustained overexpansion of credit even as observable yields collapse:

### **(a) Over-optimistic cash-flow or price-growth expectations.**

If investors extrapolate rising rents, rising house prices, rapid earnings growth, or persistently low default rates, they may record

$$E[R_i] \gg \bar{r}$$

even when the running yield  $D_i/P_i$  has fallen to levels inconsistent with long-run fundamentals.

### **(b) Underestimation of risk, or misperception of the appropriate hurdle rate.**

If risk is mispriced—e.g., through inflated credit ratings, implicit guarantees, or perceived “safe” status—investors may apply an effective hurdle rate far below the true risk-adjusted  $\bar{r}$ . This gap enables prices to rise far above levels justified by actual risk.

In both cases, the FCAT mechanism continues to allocate credit to the asset because the market perceives

$$E[R_i] > \bar{r}$$

even as true risk-adjusted returns have already fallen below  $\bar{r}$ .

**(3) Positive feedback: collateral → credit → price → collateral**

Because many securitized assets serve as collateral, rising prices improve measured creditworthiness, reduce apparent risk, and relax lending constraints. This generates the classic Minskyan loop:

$$P_i \uparrow \Rightarrow \text{collateral quality} \uparrow \Rightarrow C_i \uparrow \Rightarrow P_i \uparrow.$$

Within FCAT, this feedback operates through **revised perceptions of both return and risk**, enabling credit expansion even as fundamental yields fall.

**(4) Crashes as rapid reversion to the FCAT equilibrium condition**

A crash occurs when perceptions correct.

When investors suddenly recognize that

$$E[R_i] < \bar{r}$$

at prevailing prices, the adjustment rule reverses:

$$\dot{C}_i < 0.$$

Credit withdraws, leveraged positions unwind, forced sales depress prices, and yields overshoot on the upside.

At distressed prices,

$$\frac{D_i}{P_i} \gg \bar{r},$$

so once losses are realized and balance sheets stabilize, new credit slowly reenters the asset class and returns reconverge toward  $\bar{r}$ .

### **Interpretation**

Bubbles and crashes are not anomalies outside the FCAT mechanism; they are oscillations around the same convergence condition. The law of motion—credit expansion when perceived expected return exceeds  $\bar{r}$ , contraction when it falls short—remains unchanged. What varies is the *accuracy* of the beliefs that guide  $E[R_i]$ .

### **4.4 Recessions as credit-clearing episodes**

The same adjustment mechanism that drives steady-state yield convergence also offers a unified account of recessions in a fiat–securitization regime. Abstracting from asset-level differences, let aggregate credit funding risky securitized assets evolve according to

$$\dot{C} = \kappa [E(R) - \bar{r}],$$

where  $E(R)$  denotes the portfolio-average perceived risk-adjusted return on securitized cash flows. During expansions, optimistic cash-flow expectations, low measured risk, and extrapolated capital gains imply

$$E(R) > \bar{r},$$

so  $\dot{C} > 0$ : credit creation accelerates, leverage rises, and asset prices appreciate. Real activity is supported both directly—via household and firm borrowing—and indirectly through collateral gains, wealth effects, and balance-sheet expansion.

A recession begins when a shock—whether to expected cash flows, to risk premia, or to policy rates—pushes perceived returns below the benchmark:

$$E(R) < \bar{r}.$$

At that moment, the same mechanism that previously fueled credit expansion reverses sign:  $\dot{C} < 0$ . Lenders tighten standards, securitization pipelines slow or collapse, and investors rebalance away from risky assets. Falling asset prices impair collateral values, raise effective leverage, and tighten borrowing constraints. Refinancing channels close, and some borrowers are forced into deleveraging or default.

The contraction of credit transmits to the real economy through well-documented channels. Households reduce consumption to repair balance sheets or meet debt service; firms cut investment, hiring, and inventories as financing conditions deteriorate and demand weakens; governments may face funding pressures or choose to tighten fiscal stances. Output and employment fall in concert with balance-sheet repair. From the perspective of FCAT, recessions

are best interpreted as credit-clearing episodes: periods during which a stock of credit previously justified by optimistic or mismeasured returns is repriced downward until the remaining funded assets again satisfy

$$E(R) \approx \bar{r}.$$

This interpretation highlights the distinctive nature of post-1971 business cycles. In regimes with harder monetary constraints and limited securitization, recessions often reflected inventory dynamics, real-sector overinvestment, or deliberate attempts to arrest wage–price spirals. Under fiat money with elastic credit and deep securitization, downturns arise more naturally as financial balance-sheet adjustments, triggered when perceived risk-adjusted returns fall short of the system’s required return and the credit apparatus shifts abruptly from expansion to retrenchment.

#### **4.5 QE, Modern Monetary Theory, and the Fiat–Credit Allocation Mechanism**

Quantitative easing (QE) and the recent revival of Modern Monetary Theory (MMT) can be interpreted naturally within the Fiat–Credit Allocation Theorem. QE consists of central banks purchasing government bonds and other high-grade securities in exchange for newly created reserves. In standard accounts this is described as “injecting liquidity” or “printing money.”

From the perspective of FCAT, however, QE primarily reshapes the yield landscape rather than directly determining the volume or allocation of private credit. By driving down yields on safe assets, QE increases the gap between the required return on risky capital  $\bar{r}$  and the returns on government liabilities, thereby intensifying the search for yield in securitized cash flows. Elastic private credit and portfolio rebalancing then push funds into mortgages, corporate credit, real

estate investment trusts, hospital and infrastructure bonds, and other assetized income streams until their risk-adjusted expected returns are again driven toward  $\bar{r}$ . In other words, QE does not mechanically “flood the economy with spendable money” so much as accelerate credit expansion into any cash flow that can be securitized, reinforcing the yield-convergence logic of the theorem and fueling asset-price inflation rather than broad wage inflation. *Because wage income is not directly securitizable and cannot be levered through balance sheets, it does not participate symmetrically in the yield-convergence process that governs asset prices under elastic credit.*

Modern Monetary Theory correctly emphasizes that a sovereign currency issuer is not financially constrained in the same manner as a household or firm: the binding limit on fiscal policy is ultimately inflation, not solvency. FCAT is fully consistent with this sovereign-finance insight but draws attention to a different locus of constraint and dynamics: the private credit–securitization complex. Even if the state faces no funding shortage and can sustain large deficits, the theorem implies that, as long as private banks can create credit elastically and capital markets can securitize a wide range of cash flows, the dominant pricing forces in the economy will be those operating on securitized assets rather than on wages or new productive investment. Fiscal expansions and central-bank interventions that stabilize incomes and asset values without altering this structure tend, therefore, to be capitalized into asset markets: they shore up cash flows that are immediately repriced to  $\bar{r}$ , raising the market value of claims on housing, healthcare, education, utilities, and corporate profits, while leaving the wage–productivity link weak. From the FCAT standpoint, post-2008 policy can be seen less as “money printing” in the popular sense and more as a large-scale effort to prevent collapse of the securitized-credit regime, with the side effect of reinforcing the asset-pricing dynamics that drive financialization and essential-goods inflation in a fiat system.

## 4.6 Labor Markets Under Fiat–Credit Allocation

The Fiat–Credit Allocation Theorem implies a structural asymmetry between capital and labor. In a fiat system with elastic credit and extensive securitization, the dominant equilibrium condition is that the expected risk-adjusted return on securitized cash flows is driven toward the required return on capital  $\bar{r}$ . Wage growth, by contrast, is tied to real productivity growth and institutional bargaining power, and therefore evolves at or near the trend rate  $g$ . Labor markets are thus price-takers with respect to the asset-pricing regime: firms, lenders, and asset managers optimize around  $\bar{r}$  on securitized claims and treat the wage bill as a cost to be minimized subject to that constraint, rather than as a residual claimant on rising returns.

Several labor-market regularities follow from this logic. First, a declining labor share of income is not a puzzle but a corollary of FCAT: when newly created credit flows primarily into financial claims on existing cash flows rather than into labor-intensive productive investment, an increasing share of value added is captured as interest, dividends, and capital gains instead of wages. Second, the system can sustain periods of low unemployment with weak wage growth. Cheap credit may be deployed more profitably into buybacks, mergers, asset acquisition, and balance-sheet expansion than into raising compensation or expanding payrolls, so the conventional Phillips-curve link between slack and wage inflation is attenuated.

Third, FCAT helps explain job polarization and labor precarity. Credit flows readily into business models that transform labor into a thin cost layer beneath scalable, securitizable cash-flow platforms—logistics networks, franchising systems, and gig-economy intermediaries—where investors own the income streams and labor is hired on flexible, low-commitment terms. In downturns, when perceived returns on securitized assets fall below  $\bar{r}$ , credit contraction transmits rapidly into reduced labor demand, layoffs, and hiring freezes. In upturns, by contrast, new credit

is absorbed disproportionately by asset purchases and financial engineering, with muted effects on wages or employment.

In short, under Fiat–Credit Allocation the labor market functions primarily as a shock absorber for the credit–asset complex: it bears the adjustment costs of recessions but captures only a small share of the gains during expansions.

#### **4.6.1 FCAT Explanation of the Productivity–Wage Divergence**

The well-known divergence between productivity and real hourly compensation—productivity rising by roughly 250 percent since 1948 while compensation rises only about 110 percent—aligns closely with the transition to the institutional conditions that define the FCAT regime. The break occurs in the early–mid 1970s, precisely when the U.S. economy shifted to unconstrained fiat money, elastic private credit, and broad securitization. Numerous empirical studies document this structural break, including Stansbury and Summers (2020) on the post-1970s decoupling of productivity and pay, Barkai (2020) on declining labor shares, and Karabarbounis and Neiman (2014) on capital–labor substitution associated with falling labor shares.

Within FCAT, the mechanism is straightforward. Credit allocation follows the return-arbitrage rule

$$\frac{dC_i}{dt} = \kappa_i [E(R_i) - \bar{r}],$$

which implies that credit expands toward any securitizable cash flow whose expected return lies above the required benchmark  $\bar{r}$ . Activities that cannot be securitized—most importantly labor income—cannot attract credit flows, cannot be levered, and cannot participate in the yield-

convergence dynamics that define the post-1971 regime. Their growth is instead linked to the underlying expansion of real output. By contrast, capital income *is* securitizable. Once credit becomes elastic, capital receives persistent inflows until its expected return is pushed toward the required benchmark. Productivity, increasingly embodied in capital-deepening and automation, rises accordingly; wages do not.

The historical data match this prediction. From 1948 to 1973, productivity and compensation move closely together—an era in which credit creation was constrained, securitization was limited, and capital could not meaningfully outpace labor. After the early 1970s, the two series diverge sharply. While explanations centered on globalization, union decline, or technological change capture part of the story, they fail to explain the timing and persistence of the structural break. FCAT places the cause at a deeper level: once elastic credit bids up returns on securitizable assets, capital incomes are pulled toward the financial required return, while wages—outside the securitizable universe—continue to track the underlying pace of real economic expansion.

In this environment, productivity gains are capitalized into asset valuations rather than diffused into compensation. Higher expected profits raise equity values; rising valuations attract further credit inflows; and leverage amplifies the gains. Labor's share of income falls mechanically because the credit system channels economic surplus toward securitized capital returns rather than labor compensation. This is consistent with empirical work showing that the post-1970s decline in labor share is concentrated in highly capital-intensive and highly financialized industries (Barkai 2020; Autor et al. 2020).

Thus wage stagnation is not a failure of policy or bargaining institutions, but a mechanical implication of the FCAT regime. Once credit can freely arbitrage return differentials, and labor

income cannot be securitized, the long-run paths of productivity and compensation diverge by structural necessity. Put simply, in a FIAT regime credit will chase securitizable assets rather than productivity (labor).

#### **4.6.2 Empirical Evidence: Financialization, Securitization, and the Productivity–Wage Gap**

The core claim of the Fiat–Credit Allocation Theorem (FCAT) is that, once credit becomes elastic and cash flows are widely securitizable, capital incomes are arbitrated toward the financial required return while wages, which cannot be securitized, are left tracking the underlying pace of real economic expansion. In such a regime, productivity gains are capitalized into asset prices, markups, and pure profits rather than diffused into broad-based wage growth. This subsection reviews the existing empirical literature that effectively “runs” versions of this test, even if it does not use FCAT/RAIT language.

Put plainly, securitizable cash flows get bid up to the required return. Labor does not. Thus productivity escapes into asset prices, not paychecks.

#### **4.6.3 Conceptual Test**

The simplest empirical implication of FCAT can be stated as follows. Consider an industry- or firm-level panel in which we can measure:

- productivity growth (e.g., value added per hour),
- real wage growth or the labor share, and

- some proxy for financialization / securitization intensity (e.g., dividends plus interest over value added, financial income share, institutional ownership, or reliance on capital markets).

A natural regression is:

$$\text{Wage-productivity gap}_{it} \text{ or } \Delta \text{Labor share}_{it} = \alpha + \beta_1 \text{Financialization}_{it} + X_{it}\Gamma + \mu_i + \tau_t + \varepsilon_{it},$$

where  $X_{it}$  includes controls for globalization (trade, FDI), technology/automation, market concentration or markups, and labor-market institutions, and  $\mu_i$ ,  $\tau_t$  are entity and time fixed effects.

**FCAT predicts  $\beta_1 > 0$**  when the dependent variable is the wage-productivity gap (or  $\beta_1 < 0$  for the labor share): as financialization rises, the wedge between productivity and compensation widens, with the effect strongest in sectors whose cash flows are easily securitized (e.g., housing, finance, healthcare, platform sectors).

The existing empirical literature, although framed in terms of “financialization” or “shareholder value” rather than FCAT/RAIT, in practice estimates variants of exactly this relationship. The results are strongly consistent with the theoretical mechanism.

#### **4.6.3 Panels of Advanced Economies: Financialization as the Dominant Driver**

A first group of studies uses country- or industry-level panels for advanced economies (including the United States) and directly regresses changes in the labor share on measures of financialization and other controls. Dühaupt (2013) analyzes a panel of OECD countries over 1986–2007 using a specification of the form:

$$\Delta \text{Labor share}_{it} = \alpha + \beta_1 \Delta \text{Financialization}_{it} + \beta_2 \Delta \text{Globalization}_{it} + \beta_3 \Delta \text{Unemployment}_{it} + \beta_4 \Delta \text{Public sector}_{it} + \varepsilon_{it},$$

estimated in first differences with panel-corrected standard errors and feasible GLS.

Financialization is proxied by dividends and interest payments relative to the capital stock or value added. Across a range of specifications, the coefficient on financialization is strongly negative for the labor share and highly statistically significant (on the order of 0.4 percentage points decline in the labor share for a unit increase in the financialization ratio), whereas other drivers—trade openness, FDI, unemployment—have smaller and often less robust effects.

Dividends, in particular, dominate interest payments.

In parallel, ILO (2013) and Stockhammer (2013) construct broader panels covering several dozen countries over 1970–2007 and estimate labor-share regressions including financialization (foreign assets and liabilities relative to GDP, or broader financial openness), globalization (trade and FDI), technology (capital deepening/automation proxies), and institutional variables. Their central result is that financialization explains a larger share of the global decline in labor's share than either globalization or technological change, with some decompositions attributing almost half of the observed decline in advanced economies to financialization variables. Technology and trade still matter, but they are not the primary driver once financialization is controlled for.

Interpreted through FCAT, these results are exactly what the theory predicts. Once credit becomes elastic and financial claims on future cash flows are scalable, corporate behavior is disciplined by the requirement to meet financial returns on securities, not by the need to maximize real wage growth. The empirical fact that financialization metrics outperform trade, technology, and institutions as predictors of the labor-share decline is consistent with a world in

which the allocation of surplus is governed by asset-pricing constraints rather than by the older, pre-1970s wage–productivity linkage.

#### **4.6.4 Concentration, Markups, and the Rise of Pure Profits**

A second strand of evidence comes from work on markups, concentration, and “superstar” firms. Barkai (2020) shows that for U.S. non-financial corporations, both the labor share and the measured capital share have declined since the 1980s, with the residual being a rising pure-profit share. When capital costs are properly computed as the required rate of return times the capital stock, the missing mass does not go to labor or to “normal” capital, but to markups and rents. Autor et al. (2020) show that industries experiencing the greatest increases in concentration and markups—the so-called “superstar” sectors—also exhibit the steepest declines in the labor share. Crucially, this is primarily a between-firm reallocation: sales shift toward high-markup, low-labor-share firms, so that industry-level labor shares fall even if within-firm shares are relatively stable.

These findings again match the FCAT mechanism. Under FCAT, productivity growth in highly financialized, high-markup firms does not force wage growth to keep pace; instead, it is capitalized into equity valuations and sustained markups. The Barkai result that pure profits, not conventional capital returns, absorb much of the surplus is almost a direct empirical counterpart to the RAIT claim that essential or quasi-essential cash flows (including those of dominant firms) are priced to yield required returns to rentier capital, with wages and “normal” capital returns crowded out.

From this perspective, the “superstar firm” phenomenon is a particular institutional realization of the broader FCAT regime: asset-market discipline and elastic credit allow dominant firms to

sustain markups and pure profits without being competed back down to a labor-friendly equilibrium. The productivity–wage link is broken because the marginal dollar of surplus is routed to maintaining valuations and return targets, not to raising compensation.

#### **4.6.5 Financialization, Shareholder Primacy, and Worker Power**

A third group of studies connects financialization and shareholder primacy more explicitly to the wage–productivity gap. Kohler, Guschanski, and Stockhammer (2019) estimate panel models in which the wage share is regressed on multiple measures of financialization: financial payments (interest and dividends), financial income, and indicators of shareholder value orientation. They find that higher financial payouts and financial income are systematically associated with lower wage shares, even after controlling for trade, technology, and institutional settings. Other work on “shareholder primacy” shows that the shift toward maximizing shareholder value, share buybacks, and financial metrics is associated with flat median wages and rising shareholder payouts, particularly in large listed firms.

Stansbury and Summers (2020) document that, in the United States, the post-1970s era combines three features: (i) a falling labor share, (ii) rising markups and profitability, and (iii) elevated equity valuations (high Tobin’s  $q$ ) coexisting with low safe real interest rates. They interpret this as evidence of declining worker power in the presence of market power. FCAT and RAIT complements this interpretation by specifying the financial mechanism: *once returns on securitized cash flows are the primary object of credit allocation, declining worker power and rising market power are not independent primitives but channels through which the asset-pricing constraint acts*. The political–institutional shifts in bargaining power determine how big the “excess” cash flows are; FCAT then determines that those flows are capitalized into asset prices and rents, not into wages.

In short, the financialization literature is empirically documenting the same thing FCAT asserts structurally: anything that can be securitized becomes a yield stream for rentier capital; labor is the one major cash flow that cannot be securitized directly and so is systematically marginalized in the allocation of surplus.

#### **4.6.6 Sectoral Patterns: Where Securitization Bites Hardest**

FCAT make a more granular prediction: the decoupling of productivity and wages should be strongest in sectors whose cash flows lend themselves to securitization and collateralization— notably housing and real estate (via mortgage-backed securities and REITs), healthcare (via securitized receivables and insurance flows), utilities and infrastructure, and platform-type information sectors.

Existing work, though not always framed in exactly these terms, is broadly consistent with this pattern. Studies of housing finance and securitization show that mortgage chains generate heterogeneous rents along the intermediation sequence, with large issuers capturing persistent profits that are not passed through to borrowers or originators in the form of lower rates or higher wages. Work on sectoral labor-share trends finds the largest and most persistent declines in precisely those sectors that have seen both heavy capital-market involvement and stable or rising demand—again matching the FCAT intuition that elastic credit will flow to any cash flow that can be packaged and levered, especially when the underlying demand is inelastic.

This sectoral evidence is important because it supports a key asymmetry in RAIT: the problem is not “capital deepening” in general, but the specific combination of essential or quasi-essential cash flows plus securitization and credit elasticity. Where cash flows are difficult to collateralize

or securitize, the classic productivity–wage link is less damaged. Where they are easily securitized, wages lag most.

#### 4.6.7 Synthesis and Interpretation

Taken together, this body of evidence does not merely show that productivity and wages have diverged since the 1970s. That stylized fact is well known. What the literature shows—often unintentionally—is that:

1. **The divergence is most tightly associated with financialization**, broadly construed: rising financial payments and income relative to value added, greater reliance on capital markets, and shareholder-value governance.
2. **The missing wage mass reappears as markups, pure profits, and high valuations**, rather than as higher “normal” capital income.
3. **The effect is strongest in sectors with securitizable, often essential, cash flows**—exactly the sectors RAIT singles out as prone to rentier domination once credit becomes elastic.
4. Trade, automation, and institutions matter, but they enter primarily as modifiers of the underlying cash-flow growth process. The decisive step—*where the surplus goes*—is governed by the asset-pricing logic captured in FCAT.

This is precisely the environment envisioned by RAIT. *Under the Bretton Woods, bank-funded regime, the safest way to earn returns was to invest in productive capacity, which coupled capital and labor incomes. Under the post-1971 fiat–securitization regime, the safest way to earn returns is to own securitized claims on future cash flows, not necessarily to expand real*

*capacity or wages.* In that world, wage stagnation is not merely a policy failure or a bargaining outcome; it is the mechanical by-product of a system in which wages cannot be securitized but almost everything else can.

The empirical literature on financialization and the labor share therefore functions, in effect, as a set of indirect tests of FCAT. It shows that where financialization is greatest, the productivity–wage link is weakest; that the wedge is absorbed by profits and valuations; and that the timing of the break coincides with the rise of the modern fiat–credit system. *Once elastic credit can arbitrage returns across securitized assets, and labor income remains non-securitizable, the long-run paths of productivity and compensation diverge by structural necessity.*

#### **4.7 Empirical Evidence: The Credit Allocation Flip Before and After 1971**

A core implication of the Fiat–Credit Allocation Theorem (FCAT) is that the transition from a deposit-constrained, Bretton Woods monetary regime to a fiat–securitization regime reallocated marginal credit away from the real economy (wages and productive capacity) and toward the purchase of financial claims on future cash flows. In the pre-1971 regime, when bank lending was constrained by deposits and securitization was negligible, expansions of credit should be associated primarily with higher real wages and productive investment, and only weakly with asset-price inflation. In the post-1971 regime, once credit becomes elastic and cash flows can be securitized at scale, credit growth should lose its systematic link to wage growth and instead become a strong driver of asset-price growth.

This section tests that prediction directly. We ask a simple question: did the mapping from credit growth to wages and asset prices flip around the early 1970s, in the way FCAT predicts?

#### **4.7.1 Data and Variables**

We use quarterly U.S. time series from the Federal Reserve Economic Data (FRED) database and construct year-over-year growth rates for three key variables:

##### **1. Total private nonfinancial credit**

- FRED series: **TCMDO** (Total Credit to Private Nonfinancial Sector, billions of dollars, quarterly).
- Interpretation: broad measure of outstanding credit to the private nonfinancial sector.

##### **2. Real wages / labor compensation**

- FRED series: **COMPRNFB** (Real Compensation Per Hour, Nonfarm Business Sector, index 2017=100, quarterly).
- Interpretation: real hourly compensation of workers in the nonfarm business sector.

##### **3. Asset prices / corporate equity valuations**

- FRED series: **BOGZ1FL893064105Q** (All Sectors; Corporate Equities; Asset, level, millions of dollars, quarterly).
- Interpretation: aggregate market value of corporate equity assets, used as a broad proxy for equity-asset valuations.

- We use this series rather than the S&P 500 because it has continuous coverage back before 1971.

For each series  $X_t$ , we compute year-over-year percentage growth:

$$\Delta X_t = \frac{X_t - X_{t-4}}{X_{t-4}} \times 100,$$

using a 4-quarter lag to obtain annualized growth rates from quarterly data. The lag implies that usable observations begin in the early 1950s (approximately 1953Q1) once the first year-over-year changes are defined.

We then define two subsamples:

- **Pre-FCAT (Bretton Woods) period:** 1953Q1–1971Q4
- **Post-FCAT (fiat–securitization) period:** 1973Q1–2024Q2

The year 1972 is dropped to avoid transitional overlap. The pre-period corresponds to the era in which the dollar was still tied, directly or indirectly, to gold via Bretton Woods, deposit constraints tightly bound bank balance sheets, and securitized credit markets were essentially absent. The post-period corresponds to the fully fiat regime, after the Nixon Shock and the collapse of Bretton Woods, during which securitization and capital-market-based credit expansion become central features of the financial system.

#### 4.7.2 Empirical Specification

To test FCAT’s allocation prediction, we estimate two simple reduced-form regressions:

1. **Credit growth → wage growth**

$$\Delta W_t = \alpha_W + \beta_W \Delta C_t + \varepsilon_t,$$

where  $\Delta W_t$  is the year-over-year growth rate of real hourly compensation (COMPRNFB), and  $\Delta C_t$  is the year-over-year growth rate of total private nonfinancial credit (TCMDO).

## 2. Credit growth → asset-price growth

$$\Delta A_t = \alpha_A + \beta_A \Delta C_t + \nu_t,$$

where  $\Delta A_t$  is the year-over-year growth rate of the corporate-equity asset series (BOGZ1FL893064105Q).

Both regressions are estimated by ordinary least squares (OLS) with an intercept, separately for the pre-FCAT and post-FCAT periods. The coefficients  $\beta_W$  and  $\beta_A$  capture how credit expansions are associated with wage growth and asset-price growth, respectively, in each regime.

Under FCAT, we expect the following pattern:

- **Pre-1971 (deposit-constrained, non-securitized regime):**
  - $\beta_W > 0$  and statistically significant (credit growth supports wage growth).
  - $\beta_A$  small and statistically insignificant (credit growth has limited effect on asset valuations).
- **Post-1971 (fiat-securitization regime):**
  - $\beta_W \approx 0$  (credit growth no longer systematically raises wages).
  - $\beta_A > 0$ , large and statistically significant (credit growth inflates asset prices).

We also perform **Chow tests** for parameter stability around the 1971 break to assess whether the relationship between credit and each dependent variable changes significantly between the two subperiods.

### 4.7.3 Results

Tables 1–3 report the results of the regressions and the structural break tests.

**Table 1: Regression A — Credit Growth → Wage Growth**

$$\Delta W_t = \alpha_W + \beta_W \Delta C_t + \varepsilon_t$$

Period	$\beta$ Coefficient	Standard Error	t- Statistic	p- Value	R <sup>2</sup>	N
1953Q1–1971Q4 (Pre-1971)	0.215	0.078	2.756	0.007	0.092	76
1973Q1–2024Q2 (Post-1973)	-0.048	0.041	-1.171	0.243	0.007	206

In the **pre-1971 sample**, the coefficient of credit growth on wage growth is positive and statistically significant ( $\beta_W = 0.215$ ,  $p = 0.007$ ). A one percentage-point increase in the year-over-year growth rate of private credit is associated with roughly 0.2 percentage points faster growth in real hourly compensation. The R<sup>2</sup> is modest but nontrivial (0.092), which is typical for single-regressor macro time-series regressions.

In the **post-1973 sample**, the coefficient becomes small, negative, and statistically indistinguishable from zero ( $\beta_W = -0.048$ ,  $p = 0.243$ ,  $R^2 = 0.007$ ). Under the fiat–securitization regime, marginal credit growth does not systematically raise real wages.

**Table 2: Regression B — Credit Growth → Asset-Price Growth**

$$\Delta A_t = \alpha_A + \beta_A \Delta C_t + v_t$$

Period	$\beta$ Coefficient	Standard Error	t- Statistic	p- Value	R <sup>2</sup>	N
1953Q1–1971Q4 (Pre-1971)	0.412	0.312	1.321	0.190	0.023	76
1973Q1–2024Q2 (Post-1973)	1.792	0.498	3.600	0.0004	0.059	206

For **asset-price growth**, the pattern is the mirror image. In the pre-1971 period, the coefficient of credit growth on equity-asset growth is modest and not statistically significant ( $\beta_A = 0.412$ ,  $p = 0.190$ ,  $R^2 = 0.023$ ). Credit expansions are not tightly linked to changes in the aggregate value of corporate equity. In the post-1973 period, by contrast, the coefficient becomes large and highly significant ( $\beta_A = 1.792$ ,  $p = 0.0004$ ,  $R^2 = 0.059$ ). Under the fiat regime, a one percentage-point increase in credit growth is associated with nearly 1.8 percentage points faster growth in the corporate equity asset series.

**Table 3: Chow Structural Break Tests (Break at 1971/1973)**

Regression	F-Statistic	p-Value	Null of Parameter Stability Rejected?
Credit → Wages	8.452	0.0002	Yes
Credit → Asset Prices	12.314	0.0001	Yes

The Chow tests strongly reject the null hypothesis that the pre- and post-1971 relationships share the same parameters, for both the wage and asset-price equations. The mapping from credit to the real side of the economy and to asset valuations shifts significantly between the two regimes.

#### 4.7.4 Interpretation: From Real-Side Credit to Asset-Side Credit

These results are straightforward to interpret in light of FCAT.

1. **In the Bretton Woods era (pre-1971), credit expansions were real-side in character.**

The positive and statistically significant  $\beta_W$  indicates that, when total private credit grew faster, real hourly compensation tended to grow faster as well. This is consistent with a regime in which:

- bank lending is constrained by deposits and regulatory ceilings,
- credit is rationed and prioritized for productive uses (working capital, payroll, inventories, capital formation), and
- labor compensation and productivity remain tightly linked.

At the same time, the weak and insignificant relationship between credit growth and equity-asset growth ( $\beta_A$  small,  $p \approx 0.19$ ) suggests that pre-1971 credit expansions did **not** primarily manifest as asset-price booms. Equity valuations moved, but not in a way tightly driven by aggregate credit growth. There is no evidence of a generalized “credit-to-assets” channel dominating the macro dynamics.

2. **In the fiat–securitization era (post-1971), credit expansions became asset-side in character.**

After 1973, the estimated effect of credit growth on wage growth essentially disappears

( $\beta_W$  small and insignificant). Marginal credit is no longer a reliable driver of real compensation. By contrast, the effect of credit growth on equity-asset growth becomes large and statistically significant ( $\beta_A \approx 1.8, p < 0.001$ ). This is precisely the pattern one would expect in a regime where:

- credit is no longer constrained by deposits but can be created elastically,
- securitization and capital markets allow any sufficiently stable cash flow to be monetized, and
- financial actors can deploy new credit to lever and purchase existing and future cash flows rather than fund new production.

In FCAT terms, the **target of credit** has shifted: from financing the production of real output (and thereby supporting wages) to financing the purchase and capitalization of future cash flows into asset prices. The credit system is still doing work; it is simply doing different work, and its output now shows up in asset valuations rather than in broadly shared wage gains.

### 3. **The structural break around 1971–1973 is exactly where FCAT places the regime transition.**

The Chow tests formalize what the split-sample regressions strongly suggest: the credit–wage and credit–asset relationships cannot be treated as stable over the full postwar period. The early 1970s break aligns with the end of Bretton Woods, the shift to a pure fiat dollar standard, and the onset of large-scale securitization (e.g., the emergence of MBS markets). FCAT takes this as the critical institutional transition that makes elastic credit and broad securitization possible. The empirical pattern is exactly what FCAT predicts and not what alternative explanations—such as skill-biased technical change,

trade integration, or union decline—would naturally imply. Those narratives may help explain *why* wages decoupled from productivity or *why* markups rose, but they do not predict a sign change in the relationship between credit growth and wage growth, nor a simultaneous strengthening of the credit–asset link coincident with the fiat transition.

#### **4.7.5 Limitations and Robustness Considerations**

These regressions are intentionally simple: each equation uses a single explanatory variable (credit growth) and an intercept, split across two regimes. The resulting  $R^2$  values are modest, as one would expect in macro time-series with many omitted drivers (real activity, inflation, monetary policy, global shocks, etc.). The goal here is not to claim that credit growth alone “explains” wages or asset prices, but rather to document a structural change in the sign and strength of these relationships across regimes.

In further work, one could:

- Use alternative credit measures (e.g., household credit, mortgage credit, bank credit) to verify similar patterns.
- Use alternative asset-price measures (e.g., equity price indices, house-price indices, Tobin’s  $q$ ) to confirm the robustness of the credit–asset link post-1971.
- Add basic controls (e.g., real GDP growth, inflation, unemployment) to ensure that the allocation flip is not an artifact of omitted-variable bias.
- Experiment with alternative break dates (e.g., 1970, 1973, 1975) to confirm that the early 1970s remain the locus of the regime shift.

However, even in this stripped-down specification, the central empirical result is clear:

*Before 1971, credit expansions were associated with higher wage growth and only weakly with asset-price growth; after 1973, credit expansions cease to matter for wages and instead become a strong driver of asset-price growth.*

This “credit allocation flip” is the empirical fingerprint of FCAT and provides direct support for the claim that, under fiat–securitization, credit is allocated to the purchase of future cash flows rather than to the expansion of productive capacity and labor compensation.

## **Discussion of Empirical Results**

The empirical results above are technical, but the story they tell is very simple.

For roughly the first quarter-century after World War II, when banks and other lenders expanded credit, that money showed up mainly in the real economy. Firms borrowed to expand plants, buy equipment, carry inventories, and meet payroll. Households borrowed modestly to smooth consumption. In that world, when total credit grew faster, workers’ paychecks tended to grow faster too. That is exactly what we find in the data: before 1971, periods of stronger credit growth are systematically associated with faster growth in real hourly compensation, and only weakly associated with movements in asset valuations.

After the early 1970s, that relationship disappears. Credit growth stops predicting wage growth. Instead, it becomes strongly tied to asset-price growth. When credit grows faster in the post-1973 era, what moves most reliably are not wages, but the market value of corporate equity—stocks and related claims on future profits. The same incremental credit that would once have financed new production and higher pay now shows up as higher valuations for existing assets.

Put in straightforward terms:

***In the Bretton Woods era, more lending generally meant more income and better pay.***

***In the fiat–securitization era, more lending mainly means higher asset prices.***

This is the core practical meaning of the “credit allocation flip” documented above. The financial system is still creating credit, often in much larger quantities than before, but what that credit is *doing* has changed. Instead of funding new factories, broad-based wage growth, and real capacity, it increasingly funds the purchase of claims on future cash flows—mortgages, corporate securities, securitized loans, and other financial assets. Productivity gains and profit expectations are still being generated in the real economy, but elastic credit allows financial markets to capitalize those expectations into higher asset prices rather than forcing them through into higher wages.

From the standpoint of an ordinary worker, the experience of the two regimes is very different. In the earlier period, when the economy grew and credit expanded, it was reasonable to expect that living standards and pay would rise in tandem with productivity. In the later period, that link breaks. The economy can grow, credit can boom, and stock and housing markets can surge, while typical wages barely move. Our results show that this is not just a vague impression or a political talking point; it is visible in the basic relationships between credit, wages, and asset valuations.

FCAT provides a simple explanation for this shift. Once money is fully fiat and credit can be created elastically, lenders and investors are no longer constrained to channel new credit through wage bills and productive investment. They can instead create credit directly against any cash flow that can be packaged and sold—rents, tuition payments, medical bills, platform fees, and above all, corporate profits. Because labor income itself cannot be securitized, the main

beneficiaries of this new regime are the owners of those cash flows, not the workers who produce them. The data show this change not as an abstract theory but as a concrete flip: before 1971, credit “leans” toward wages; after 1973, it “leans” toward asset prices.

In short, the evidence suggests that the wage–productivity divergence is not just a story about technology, trade, or bargaining power in isolation. It is also a story about where new credit goes. In the older system, when the financial sector expanded its balance sheets, the gains passed through more directly into paychecks. In the modern system, the same expansion mostly passes through into the prices of financial assets. That is what it means, in everyday terms, for the economy to move from a real-side credit regime to an asset-side credit regime.

#### **4.8 Mechanism in Plain Language: How Credit Allocation Shapes Wages**

The empirical results above might seem puzzling at first. Businesses decide what wages to pay. Banks and investors decide what assets to buy. How can a change in *where banks and investors send credit* explain a long-run break between productivity and wages?

The answer is that firms do not set wages in a vacuum. They set wages inside an economic environment that is heavily shaped by how the financial system allocates credit. FCAT is, at bottom, a theory about that environment.

This section explains the mechanism in plain language.

##### **4.8.1 Who Actually Chooses Where New Credit Goes?**

When the financial system expands its balance sheet, when there is “more lending”, the first decision is not made by operating businesses. It is made by banks and investors:

- Banks decide: *Do we make a new business loan, a mortgage, a margin loan, or buy a bond?*
- Investors decide: *Do we buy equities, corporate bonds, mortgage-backed securities, or hold deposits?*
- Securitizers decide: *Which cash flows can we package and sell as tradable securities?*

In the mid-20th century, the menu of options was narrow. Most credit took the form of straightforward bank loans, and most of those loans went to businesses or households for real-economy purposes—working capital, inventories, equipment, construction, and so on. There was no large, liquid universe of mortgage-backed or asset-backed securities, no deep high-yield market, and limited scope for credit-financed asset accumulation.

After the move to fiat money and the rise of securitization, that menu changed. Banks and investors could now deploy new credit into a wide range of financial instruments: MBS, ABS, corporate bonds, leveraged loans, REITs, derivatives, and shares in funds that hold all of the above. Crucially, these instruments are backed by **cash flows** (rents, interest, fees, profits), not by a commitment to hire more workers.

FCAT is about this shift: from a regime where marginal credit *had* to flow chiefly into the real economy, to a regime where marginal credit can flow predominantly into financial assets and securitized cash flows.

#### **4.8.2 Firms Still Set Wages—but Within a Credit-Shaped Environment**

It is true that firms ultimately choose the wages they pay. But those choices are constrained by the environment:

- How strong is demand for the firm's products?
- How easy is it to substitute capital for labor?
- How much pressure is there to hit financial return targets?
- How intense is competition for workers?

All of these are influenced by how and where credit is expanding.

We can think of two stylized regimes:

1. A **real-side credit regime**, where most new credit supports real production.
2. An **asset-side credit regime**, where most new credit supports the purchase and leveraging of financial assets.

The empirical results in Tables 1–3 suggest that the U.S. economy moved from the first to the second between the Bretton Woods period and the post-1971 fiat–securitization era.

#### **4.8.3 The Bretton Woods Regime: Credit That Supports Wages**

In the Bretton Woods era, banks were constrained by deposits and regulatory ceilings. There was no large securitized universe. When banks expanded lending, they did so mainly by:

- financing working capital and inventories,
- funding payroll and expansion of operations,

- financing equipment and plant construction,
- extending limited consumer and mortgage credit.

In that environment, a credit expansion typically meant:

1. **Higher labor demand**

More lending for production and expansion → more jobs and hours.

2. **Stronger link between productivity and pay**

Investments in plant and equipment raised productivity inside firms that still relied heavily on labor. When those firms grew, they needed workers, and productivity gains were more likely to be shared through higher compensation.

3. **Greater bargaining leverage for workers**

When many firms are expanding at once, workers have more outside options, and wage demands are easier to meet without squeezing profits unduly.

The pre-1971 regression results are exactly what this story implies: credit growth is statistically associated with faster real wage growth and only weakly associated with asset-price growth. Credit expansions “show up” in paychecks more than in valuations. Firms still set wages, but they do so in a credit environment that *pushes* toward expansion of labor demand and real production.

#### **4.8.4 The Fiat–Securitization Regime: Credit That Supports Asset Prices**

After the early 1970s, two things change:

1. **Money and credit become elastic.**

The end of Bretton Woods removes the external discipline on money creation; banks and shadow banks can grow balance sheets much more freely.

2. **Securitization and capital markets open new outlets for credit.**

Mortgages, credit card receivables, auto loans, student loans, and corporate cash flows are all turned into tradeable securities. Institutional investors can buy them using leverage. Banks can originate loans and sell them rather than hold them.

In this regime, when the financial system expands credit, it increasingly does so by:

- financing the purchase of existing assets,
- funding mortgages that are immediately securitized,
- financing stock buybacks and leveraged acquisitions,
- funding trading books and structured credit products,
- bidding up the price of claims on future profits and fees.

These activities are capital-intensive but often labor-light. They can raise the market value of firms and real estate without requiring proportional increases in employment or payroll.

That is what the post-1973 regression results show. Credit growth becomes strongly associated with growth in the value of corporate equities, but its link to wage growth disappears. The marginal dollar of new credit is now more likely to bid up the price of financial assets than to finance an expansion in hiring or compensation.

Firms still choose their wage policies. But they do so in a world where:

- It is often more attractive to meet investor return targets via buybacks, acquisitions, and financial engineering than by expanding headcount.
- Asset owners can realize large gains from credit-fuelled valuation increases without sharing those gains through higher wages.
- Workers face weaker labor demand relative to the scale of financial activity, undermining their bargaining power.

In short, the system no longer creates the conditions under which rising wages are the natural by-product of credit expansion.

#### **4.8.5 Why This Matters for the Wage–Productivity Gap**

Seen through this lens, the post-1970s wage–productivity gap is not a mystery. The economy still innovates and raises productivity. Credit still expands, often far more aggressively than in the past. But the main channel through which credit and productivity gains are capitalized is now financial assets, not the wage bill.

FCAT does not claim that firms stopped investing in capital or that no credit ever supports real projects. Rather, it claims—and the evidence supports—that at the margin, once credit became elastic and securitized, the financial system reoriented its lending and investment toward cash flows that can be turned into tradable assets. Labor income cannot be securitized. That alone is enough to explain why, in the new regime, productivity and credit growth no longer translate into broad wage gains, even though businesses technically still “set” wages.

The result is a structural environment in which:

- credit booms raise asset prices more reliably than wages,
- owners of financial claims capture a rising share of the gains,
- average workers see much weaker pass-through from growth and credit to their paychecks.

The regressions in the previous section are simply the statistical imprint of this shift: before 1971, when credit grew, wages tended to rise; after 1973, when credit grows, asset prices rise instead.

#### **4.9 FCAT Interpretation of the Global Financial Crisis**

The Global Financial Crisis can be understood, within the framework of the Fiat–Credit Allocation Theorem (FCAT), as the predictable consequence of a fiat monetary system combined with elastic private credit and large-scale securitization. Following the collapse of the Bretton Woods system, U.S. financial institutions operated in an environment in which (i) money and bank balance sheets were no longer subject to an external constraint, (ii) private credit creation was endogenously elastic, and (iii) mortgage and consumer cash flows could be pooled, tranced, and traded globally. FCAT formalizes the resulting allocative logic: credit flows toward any securitized cash flow whose expected risk-adjusted return exceeds the system’s required return on capital,  $\bar{r}$ :

$$\frac{dC_i}{dt} = \kappa_i [E(R_i) - \bar{r}], \kappa_i > 0.$$

Under these conditions, the long expansion of U.S. mortgage credit becomes an endogenous equilibrium outcome. Between the early 1980s and 2006, mortgage-backed securities (MBS) appeared to offer unusually attractive characteristics: comparatively high yields, low perceived risk due to structured-credit engineering, large and politically stable underlying cash flows, and deep secondary-market liquidity. In FCAT terms, for an extended period the market's perception satisfied  $E(R_{\text{MBS}}) > \bar{r}$ , ensuring  $\frac{dC_{\text{MBS}}}{dt} > 0$ . Banks, shadow banks, government-sponsored enterprises, foreign reserve managers, pension funds, and insurance companies accordingly expanded credit into the U.S. housing sector. This should not be interpreted primarily as exuberance or regulatory failure, but as the expected direction of credit allocation in a fiat-securitization regime.

Bubble dynamics follow directly. As credit flows toward a particular cash flow, securitized-asset prices rise, underlying lending expands, leverage deepens, and measured yields fall. Yet as long as *perceived total return* (income yield plus expected capital gains) remains above  $\bar{r}$ , FCAT predicts continued credit expansion. In this sense, asset-price inflation in securitized markets is not an anomaly but the mechanism through which yields converge toward the system's required return. Rising house prices were not an exogenous deviation from fundamentals; they were an equilibrium expression of the yield-convergence process.

The turning point occurs when expected returns fall below  $\bar{r}$ . As mortgage defaults increased and house prices stalled, expectations shifted:  $E(R_{\text{MBS}}) < \bar{r}$ . FCAT therefore requires  $\frac{dC_{\text{MBS}}}{dt} < 0$ . The resulting contraction in credit caused the rapid collapse of securitization pipelines, deterioration of repo collateral, rising haircuts, forced deleveraging, and the destruction of shadow-bank balance sheets. Falling collateral valuations further reduced lending capacity, initiating the

familiar downward spiral of declining asset prices, impaired bank capital, and collapsing household demand.

From the perspective of FCAT, the recession that followed is a credit-clearing episode: the system purges accumulated leverage until the expected return on surviving securitized assets is again consistent with  $\bar{r}$ . The crisis represents the violent re-establishment of the yield-convergence condition after a prolonged period of misperceived returns, rather than the failure of an otherwise stable equilibrium.

Existing theories illuminate propagation mechanisms—bank runs (Diamond and Dybvig), collateral cycles (Kiyotaki and Moore), financial accelerators (Bernanke, Gertler, and Gilchrist), balance-sheet recessions (Mian and Sufi), and post-crisis ZLB dynamics. But none explain why the system spent a quarter century channeling an ever-growing share of global credit into U.S. housing. FCAT provides that missing allocative mechanism: in a fiat–securitization environment, credit must flow toward any asset whose expected return appears to exceed  $\bar{r}$ , and must withdraw once that expectation collapses. The GFC is the paradigmatic instance of this structural rule.

In summary, the Global Financial Crisis occurred because, under a fiat–securitization regime, elastic credit systematically chased the apparent excess returns in U.S. mortgage cash flows; when expectations reversed, the same mechanism forced a system-wide contraction as the structure re-aligned with the required return  $\bar{r}$ .

#### **4.10 Minsky, Financial Instability, and the Contribution of FCAT**

Minsky famously argued that “any model that cannot generate a depression is not a model of capitalism.” His core claim was that a capitalist financial system must endogenously produce

periods of credit expansion, speculative overextension, asset inflation, and subsequent contraction—not as exogenous shocks or behavioral errors, but as structural outcomes of modern finance. Much of contemporary macroeconomics fails this criterion: crises are typically introduced through external disturbances, not derived from the internal logic of credit creation.

Minsky described the *phenomenology* of instability but stopped short of specifying a micro-founded allocative mechanism that determines where credit expands, how much, and why certain sectors become systemic fault-lines. This gap remains central in both mainstream and heterodox models. FCAT provides the missing structural rule.

In a fiat–securitization regime, FCAT states that credit expands toward any cash flow whose expected risk-adjusted return exceeds the required return on capital,  $\bar{r}$ , and contracts when expected returns fall below it:

$$\frac{dC_i}{dt} = \kappa_i [E(R_i) - \bar{r}], \kappa_i > 0.$$

This rule generates Minskyan dynamics endogenously:

1. Credit booms without external shocks. Whenever  $E(R_i) > \bar{r}$ , the system must create credit.
2. Asset-price inflation as equilibrium. Rising prices and leverage are the mechanism through which yields converge toward  $\bar{r}$ , not anomalies.
3. Financial fragility as a structural byproduct. Concentrated credit allocation amplifies systemic risk in the targeted sector.

4. Crashes as necessary corrections. When expectations fall below  $\bar{r}$ , the same mechanism forces contraction and deleveraging.
5. Sectoral specificity. FCAT explains why housing, rather than any other market, became the center of late-20th-century instability: for an extended period, mortgage cash flows were perceived to yield above  $\bar{r}$ .

Crucially, FCAT also clarifies the conditions for depressions. A depression occurs when expectations fall below  $\bar{r}$  across most major securitized assets, forcing persistent system-wide credit contraction:

$$E(R_i) < \bar{r} \forall i \Rightarrow \frac{dC_i}{dt} < 0 \forall i.$$

Under such conditions, declining credit drives falling asset prices, collapsing collateral values, rising margins and haircuts, defaults, and widespread deleveraging. The real economy contracts not because of an exogenous shock, but because the credit mechanism enforcing  $E(R_i) = \bar{r}$  is operating in reverse. This produces a self-reinforcing downward spiral in both financial and real activity.

In this respect, FCAT satisfies Minsky's requirement more directly than existing frameworks. It yields endogenous booms, bubbles, crises, and depressions within a single structural rule governing credit allocation. Minsky identified the instability; FCAT provides the micro-founded law that makes such instability inevitable in the post-1971 financial regime.

#### **4.11 FCAT and Modern Monetary Theory**

Modern Monetary Theory (MMT) offers a coherent account of sovereign public finance under fiat money. Its core propositions—that a currency-issuing government cannot face a solvency constraint, that deficits create net financial assets for the private sector, and that inflation is the binding constraint—accurately describe the position of the state within the hierarchy of financial claims. Yet MMT is largely silent on the structure, dynamics, and allocative behavior of the *private* credit system. It does not model expected returns, securitization, leverage cycles, asset-price dynamics, or the mechanisms that generate financial booms and crises.

The Fiat–Credit Allocation Theorem (FCAT) fills this gap by identifying the allocative law governing private credit creation in a fiat, securitized financial regime. FCAT formalizes the principle that credit expands toward any cash flow whose expected risk-adjusted return exceeds the required return on capital,  $\bar{r}$ , and contracts when expected returns fall below it:

$$\frac{dC_i}{dt} = \kappa_i [E(R_i) - \bar{r}], \kappa_i > 0.$$

This mechanism explains a wide range of phenomena that lie outside the scope of MMT: why private credit grows explosively after the dismantling of external monetary constraints; why asset prices persistently outpace wages; why cycles are driven by balance-sheet expansions and contractions; why recessions and depressions arise endogenously; and why specific sectors—most notably housing—become systemic anchors of financial instability. MMT provides no directional theory of private credit allocation; FCAT specifies the structural rule that governs it.

FCAT also clarifies the deeper reason why governments “create money” during crises. When expectations deteriorate and  $E(R_i) < \bar{r}$  across major securitized assets, the private credit system must contract. In such episodes, only the public balance sheet can expand to offset collapsing

collateral values, household deleveraging, and falling private expenditure. Thus, while MMT correctly emphasizes that sovereign deficits are unconstrained by financing needs, FCAT shows *why* such deficits become necessary: they counteract the mathematically compelled contraction of private credit when the yield-convergence mechanism operates in reverse.

In this sense, FCAT both complements and supersedes MMT. MMT describes how the state's balance sheet functions under fiat money; FCAT describes how the entire financial system behaves under the same institutional conditions. MMT explains the capacity of sovereign spending; FCAT explains the dynamics of private credit, asset prices, and macroeconomic instability that make such spending indispensable in a credit-driven regime. Put concisely: MMT characterizes fiscal sovereignty; FCAT characterizes financial capitalism.

#### **4.10 FCAT, Sovereign Debt, and the “Insufficient Money” Debate**

The post-1980 explosion of U.S. public debt is usually framed in political or moral terms—“overspending,” “entitlements,” or “military budgets.” A balance-sheet view suggests a different reading. FCAT offers a mechanical explanation: in a fiat–securitization regime, unstable private credit dynamics *force* the sovereign to run persistent and occasionally massive deficits. The state's rising debt is not primarily the result of discretionary fiscal profligacy, but of its role as the balance sheet of last resort in a highly financialized credit system.

FCAT begins from a simple adjustment rule for private credit:

$$\frac{dC_i}{dt} = \kappa_i [E(R_i) - \bar{r}], \kappa_i > 0,$$

where  $E(R_i)$  is the expected risk-adjusted return on asset  $i$ , and  $\bar{r}$  is the required return on capital. When  $E(R_i) > \bar{r}$ , credit creation is positive and balance sheets expand; when  $E(R_i) < \bar{r}$ , credit must contract. At the aggregate level, this implies long phases of credit-fuelled expansion, followed by sharp contractions in which lending stops, borrowing falls, defaults rise, asset prices decline, and private balance sheets shrink. Each contraction mechanically drives down GDP, household and corporate income, and hence tax revenues, while automatic stabilizers, bailouts, and central-bank interventions push public expenditures up. Large fiscal deficits, in this view, arise not as a matter of political choice but as an accounting response to negative private-sector credit creation. Government deficits rise because they must offset the negative credit impulse generated by the private boom–bust machine.

The magnitude of this effect is amplified by financialization. Since the early 1980s, the U.S. economy has shifted from production-led to credit-led growth, with mortgages, auto loans, student loans, and corporate debt securitized and distributed through global markets, and with households and firms increasingly leveraging real-estate and financial wealth. This architecture makes private credit hyper-cyclical: expansions are larger and more prolonged, and contractions more abrupt. FCAT implies that as the private credit engine becomes larger and more unstable, the sovereign balance sheet must expand commensurately to stabilize it. The growth of public debt thus tracks the growth of private credit: the more extensive the securitized structure, the more frequently and aggressively the state must intervene.

A further implication of FCAT is that sovereign debt accumulation is tied not only to income stabilization but also to asset-price stabilization. In a fiat–securitization regime, large asset-price collapses propagate rapidly through collateral values, bank capital, consumer credit, and pension and insurance portfolios. When expected returns on major asset classes fall below  $\bar{r}$ , FCAT

dictates  $\frac{dC_i}{dt} < 0$  across those assets; credit shrinks, and asset prices must fall until expected yields are restored. If allowed to proceed unchecked, this process produces a Fisherian debt-deflation spiral. In practice, governments and central banks respond by expanding their own balance sheets: fiscal deficits, guarantees, and capital injections on the one hand; asset purchases and liquidity facilities on the other. Each intervention adds public liabilities to prevent a collapse of the private return structure. Rising public debt is therefore not incidental but intrinsic to the attempt to prevent asset-price collapses from turning into depressions.

This perspective also reframes common explanations that focus on budget composition. It is true that U.S. federal spending is dominated by Social Security, Medicare and Medicaid, defense, interest, and other large programs. But similar categories existed, in different magnitudes, in earlier decades when debt-to-GDP ratios were stable or falling. What changed after the transition to fiat, and especially after the rise of securitized finance, is not merely the list of line items but the volatility of private credit and the price level of the goods and services the state purchases. When housing, healthcare, education, and energy become targets of yield-seeking credit, their prices are pushed toward  $\bar{r}$  by the same mechanism that inflates other securitized assets. The result is that “ordinary” government programs become structurally more expensive relative to wages and output, even at constant real quantities. In FCAT terms, budget categories are downstream of the credit regime: fiscal choices are made on a moving price base reshaped by asset-pricing dynamics.

Finally, FCAT speaks directly to debates about “insufficient money” and the Quantity Theory of Money. The modern economy is not constrained by the stock of government “tokens” or base money; it is constrained by the willingness of the private financial system to expand credit into cash flows whose expected return meets  $\bar{r}$ . In the FCAT framework,

$$\frac{dC}{dt} = \kappa [E(R) - \bar{r}]$$

implies that the effective money–credit aggregate expands whenever expected returns are high and contracts when they are low. Velocity is stable only in periods of stable credit growth; once securitization, shadow banking, and collateral cycles dominate, both money aggregates and velocity become endogenously volatile, and simple quantity-theory relationships break down. Deflation is therefore not equivalent to an increase in real money balances: falling asset prices raise the real burden of liabilities, destroy collateral, and induce further credit contraction ( $\frac{dC}{dt} < 0$ ), shrinking deposits and balance-sheet capacity and depressing demand and employment. In this setting, governments create net financial assets not to compensate for a shortage of abstract “tokens,” but to counteract the contraction of private credit when expected returns fall below  $\bar{r}$ .

Taken together, these elements yield a simple FCAT thesis on sovereign debt: U.S. public debt is large because the U.S. private credit system is unstable. The more financialized the economy becomes, the larger the state’s balance sheet must be to absorb recurring negative credit impulses and to stabilize both incomes and asset prices. This logic is not unique to the United States; Japan after its asset bubble and several European countries after 2010 display the same pattern. In a fiat–securitization regime, large and rising public debt is best understood not as a failure of fiscal discipline, but as the macro-financial counterpart of a hyper-leveraged, yield-converging credit system.

#### **4.11 FCAT Interpretation of the Fed Balance Sheet “Staircase”**

The widely noted refusal of the Federal Reserve’s balance sheet to return to pre-crisis levels is not an institutional quirk or a policy failure. In the FCAT framework, it is the clearest aggregate

indicator of a deeper structural reality: in a fiat–securitization regime, genuine system-wide deleveraging is mechanically impossible. The contour of the balance sheet—successive plateaus after each tightening cycle—visibly records this constraint.

At the core of FCAT is the allocation rule:

$$\frac{dC}{dt} = \kappa [E(R) - \rho],$$

where  $C$  is the credit stock,  $E(R)$  is the expected return on securitized assets, and  $\rho$  is the required system return. When collateral values fall during balance-sheet contraction, even modestly, expected returns decline toward or below  $\rho$ . At that point  $dC/dt$  turns negative: credit creation stops, funding markets seize, collateral chains shorten, and defaults propagate. The economy does not “slow”—it buckles. The chart shows this dynamic clearly: every quantitative tightening (QT) cycle pushes expected returns toward the viability threshold, forcing the Fed to reverse course. QT does not fail because policymakers lack resolve; it fails because the FCAT equilibrium itself collapses when collateral shrinks.

This logic also explains why every post-2008 plateau sits higher than the one before. When private collateral is impaired—whether through a housing bust, a shadow-banking liquidity crisis, a repo-market rupture, or duration losses in the banking sector—the system’s expected returns fall. To prevent collapse, the public balance sheet must replace the vanished private collateral with reserves, Treasuries, and agency MBS. The staircase is empirical evidence that private deleveraging is no longer survivable. Each crisis forces a ratchet upward in public collateral to stabilize the return structure.

The same mechanism explains why QT repeatedly stops short of its announced target. As contraction tightens liquidity, the system approaches the FCAT boundary where  $E(R)$  can no longer remain above  $\rho$ . At that point asset prices soften, banks retreat, funding spreads widen, and credit creation becomes sharply negative. The Fed halts QT not as a discretionary judgment but because contraction has approached the system's mechanical limit. Crossing that threshold would initiate a disorderly unwind.

The impossibility of "honest deleveraging" follows directly. When contraction destroys collateral, it reduces expected returns, which forces credit growth negative, which in turn triggers recession and compels the public balance sheet to expand again. This loop ensures that attempts to normalize the balance sheet will always be reversed before reaching pre-crisis levels. The system has effectively selected the only stable path available under FCAT: permanently rising public collateral to backstop a structurally unstable private credit engine.

Inflation becomes the adjustment mechanism for this reason. Policymakers cannot openly default on public liabilities, permit widespread private default, or allow broad asset deflation without precipitating systemic collapse. If collateral cannot shrink and credit cannot contract, the price level must absorb the stress. Inflation is therefore not an aberration but the release valve of a credit system that is barred from deleveraging.

The implication for the future is straightforward. A regime in which private credit is hyper-cyclical, public collateral must expand each cycle, and fiscal deficits are structurally required is a regime already operating under financial repression. Nominal rates may rise episodically, but sustained positive real rates cannot be tolerated: they would depress expected returns below the required threshold and force the system into contraction. Real yields must oscillate around zero or below—not as a policy preference, but as the mechanical consequence of the FCAT allocation

rule.

*The Fed's balance-sheet staircase is the visible signature of the FCAT constraint: in a return-driven credit system that cannot survive declining collateral, each QT cycle ends exactly where expected returns would fall below viability, forcing the Fed to re-expand to prevent self-liquidation.*

#### **4.12 The Securitization Frontier Expansion Corollary (SFEC)**

FCAT characterizes the *intensive margin*: given a fixed set of securitized assets, credit reallocates until risk-adjusted expected returns on funded claims are competed down to the required return  $\bar{r}$ . This section states the *extensive margin* implication: in a fiat–securitization regime, the *set of securitized cash flows itself expands endogenously* as intermediaries search for new claimable payment streams.

##### **4.12.1 Extended setup: potential cash flows and the securitization set**

Let  $J$  denote a large universe of *potential* real cash-flow streams indexed by  $j$  (including streams not traditionally traded as financial assets). At time  $t$ , only a subset  $S(t) \subseteq J$  has been converted into securitized, tradable claims. For each stream  $j \in J$ , let  $D_j > 0$  denote its expected real cash flow per period (interpreted broadly as any predictable payment stream that can be contracted upon).

If stream  $j$  is securitized, it becomes a tradable claim with market price  $P_j$  and perceived risk-adjusted expected total return  $E(R_j)$  as in FCAT. However, securitizing a stream is not free: it requires legal structuring, servicing, enforcement, regulatory capital, and market-making. Collect these frictions in a wedge  $\phi_j \geq 0$ . Define the perceived risk-adjusted expected return *net of securitization/intermediation frictions* as:

$$E(R_j^{sec}) \equiv E(R_j) - \phi_j.$$

Intuitively,  $\phi_j$  is the barrier that prevents a given cash flow from becoming a widely held, leverable, securitized claim.

#### 4.12.3 Additional assumptions (entry and frontier dynamics)

We maintain FCAT's assumptions A1–A5 for any securitized asset  $i \in S(t)$ . Add:

- **A6 (Securitization entry condition).** If a non-securitized stream  $j \notin S(t)$  offers a perceived net risk-adjusted return above the required return,

$$E(R_j^{sec}) > \bar{r},$$

then intermediaries can create a securitized claim on  $j$  (i.e., add  $j$  to  $S(t)$ ).

- **A7 (Frontier responsiveness).** The securitization set expands in response to excess net return opportunities. In reduced form, let

$$\frac{d |S(t)|}{dt} = \eta \cdot \#\{j \in J \setminus S(t) : E(R_j^{sec}) - \bar{r} > 0\}, \eta > 0,$$

i.e., the number (or measure) of securitized streams grows with the number of “eligible” non-securitized streams offering excess net return.

- **A8 (Innovation lowers frictions).** Over time, financial/legal/technological innovation can reduce securitization frictions for some streams:

$$\dot{\phi}_j(t) \leq 0 \text{ for some } j.$$

(Tokenization, standardized contracting, automated servicing, broader market access, and improved collateral enforcement are naturally modeled as decreases in  $\phi_j$ .)

Assumptions A6–A8 are not behavioral claims about “greed.” They are institutional claims about (i) scalable fee incentives to create tradable claims and (ii) the fact that innovation can lower the fixed costs of packaging and distributing claims.

#### 4.12.4 Corollary statement

##### **Corollary 2 (Securitization Frontier Expansion Corollary, SFEC).**

In the FCAT environment, augmented by A6–A8, any stationary long-run configuration must satisfy:

1. **(Frontier no-arbitrage / no-unexploited-entry condition)** For all non-securitized streams  $j \notin S^*$ ,

$$E(R_j^{sec}) \leq \bar{r}.$$

That is, in a stationary configuration there can be no “eligible” unsecuritized cash flow offering net risk-adjusted return above  $\bar{r}$ , because such a stream would be endogenously securitized.

2. **(Yield convergence on the expanded set)** For all securitized streams  $i \in S^*$  that are funded in equilibrium ( $C_i^* > 0$ ),

$$E(R_i^*) = \bar{r},$$

as in FCAT.

3. **(Endogenous expansion with innovation)** If innovation reduces  $\phi_j(t)$  for any stream  $j$  so that  $E(R_j) - \phi_j(t)$  crosses above  $\bar{r}$ , then  $S(t)$  expands to include  $j$ , after which FCAT's credit-allocation dynamics drive its funded expected return back toward  $\bar{r}$ .

In words: FCAT forces yield convergence within the securitized set; SFEC implies that the securitized set itself expands until there are no remaining feasible cash flows whose net securitized return exceeds the system's required return. Innovation that lowers securitization frictions shifts this frontier outward over time.

#### 4.12.5 Proof sketch

(1) *Frontier condition.* Suppose a stationary configuration  $S^*$  exists with some  $j \notin S^*$  such that  $E(R_j^{sec}) > \bar{r}$ . By A6–A7, intermediaries have an incentive and capacity to securitize  $j$ , implying  $\frac{d|S(t)|}{dt} > 0$ . This contradicts stationarity of the securitization set. Hence any stationary configuration must satisfy  $E(R_j^{sec}) \leq \bar{r}$  for all  $j \notin S^*$ .

(2) *Yield convergence on funded securitized claims.* Conditional on being securitized and funded, FCAT applies directly to each  $i \in S^*$ : with  $\kappa_i > 0$ , a stationary allocation with  $C_i^* > 0$  requires  $\kappa_i[E(R_i^*) - \bar{r}] = 0 \Rightarrow E(R_i^*) = \bar{r}$ .

(3) *Innovation expands the frontier.* If  $\phi_j(t)$  falls so that  $E(R_j) - \phi_j(t)$  becomes  $> \bar{r}$  for some  $j \notin S(t)$ , A6–A7 implies entry and expansion of  $S(t)$ . Once securitized and funded, FCAT reallocates credit so that the funded expected return on the new claim is competed down toward  $\bar{r}$  (or credit withdraws if the claim cannot sustain  $\bar{r}$  net of risks).

#### 4.12.6 Intuition and interpretation

SFEC formalizes the idea that capital-market logic is applied beyond its natural domain in a fiat regime. The required return  $\bar{r}$  is not merely a pricing benchmark; it becomes an organizing principle that pushes the financial system to (i) compress yields in existing tradable claims and (ii) create new tradable claims whenever an unsecuritized payment stream can be converted into a scalable, enforceable instrument.

This clarifies why financialization naturally enters essential sectors early. Essentials tend to generate unusually stable, enforceable cash flows (high perceived reliability of  $D_j$ ), often supported by institutional collection mechanisms (billing priority, escrow, insurance reimbursement, wage-linked payments). These features raise  $E(R_j)$  relative to many discretionary sectors, making it more likely that  $E(R_j) - \phi_j$  can exceed  $\bar{r}$ , triggering securitization entry under A6.

The corollary also clarifies why the process need not stop at essentials. As FCAT competition compresses excess yields in established asset classes, the system's route to restoring deployable spread is to expand the securitization frontier—turning progressively more granular and previously non-tradable streams into investable claims as soon as innovation lowers  $\phi_j$ . In this sense, tokenization is best modeled not as a new motive, but as a friction-reduction technology that widens the set of cash flows that can be packaged, sold, and levered.

#### 4.12.7 Implications

1. **“Things people need to live” become “vehicles for investor yield.”** Once essential payment streams are securitized and widely funded, their prices are disciplined by  $\bar{r}$ , not by local affordability constraints.

2. **Persistent outward pressure on assetization.** Yield compression within the securitized set (FCAT) produces recurring incentives to manufacture new investable surfaces (SFEC), implying a structural tendency toward broader financialization over time.
3. **Why novelty assets emerge.** When new platforms reduce  $\phi_j$  or create tradability for previously non-tradable claims (including claims supported mainly by scarcity narratives), entry occurs even in domains that do not resemble traditional productive capital—consistent with periodic waves of “tokenize everything” financial experimentation.

## **Interpretation**

In a fiat + deep-markets world, big pools of money (pensions, insurers, endowments, funds) are effectively on a treadmill: they're judged against benchmarks and obligations. When returns in the “normal” places get competed down, they don't get to shrug and say “fine, we'll earn 1% now.” If they do, they underperform, lose clients, violate payout assumptions, or get replaced. So the system develops a standing instinct: always hunt for anything that can plausibly deliver the hurdle rate. That's not a conspiracy. It's what selection pressure does: the players who don't chase return get outcompeted and disappear.

Then comes the crucial move: turning non-yield things into yield things is mostly about converting *ownership* into a claim on a cash flow. If an item doesn't naturally pay you, finance asks: can we attach a payment stream to it anyway? That can happen by (1) charging for access (subscriptions, tolls, licensing), (2) financing it and collecting interest/fees (lending against it, installment plans), (3) bundling it into contracts (servicing, warranties, data monetization), or (4)

creating “synthetic yield” structures (lending markets, carry trades, derivatives). Once you can bolt a payment stream onto something, it becomes “asset-shaped,” and now credit can fund it, leverage can magnify it, and the whole FCAT yield-compression machine can operate on it.

So the “turn everything into a yield machine” drive is really: (1) return pressure never goes away, (2) competition compresses yields wherever money already is, so (3) finance keeps expanding the menu by converting more things into tradable, financeable claims—either by attaching cash flows or by turning them into collateral/speculation vehicles. Tokenization is just a friction-reducer that makes this expansion easier: it makes more things easy to trade, slice, pledge, lend against, and package—so more corners of life become reachable by the return-seeking system.

In a fiat credit system, the financial sector is not mainly allocating a fixed pool of savings. It is continuously creating and reallocating claims in a competitive environment where investors, intermediaries, and institutions are judged against a return standard. Once that return standard becomes a governing constraint, the system cannot simply “stop” when the obvious high-yield opportunities are exhausted. Competition quickly pushes down returns in the places capital is already concentrated. The practical consequence is persistent pressure to locate, create, or repackage new return opportunities rather than accept a durable fall in returns.

That’s why the system keeps trying to convert more of the economy into “investable” form. Many things are not naturally yield-producing, but they can be made investable by attaching predictable payments to them (fees, subscriptions, tolls, financing charges, licensing, servicing contracts) or by turning them into widely tradable instruments where expected appreciation becomes the main return channel. Once something can be standardized, traded, and financed at scale, it becomes comparable to other assets in portfolio space—so it starts competing for credit,

leverage, and investor demand. The result is not just that capital moves among existing investments; it actively expands the boundary of what counts as an investment.

Essentials were an early and obvious destination because their payment streams are unusually reliable and enforceable. People cannot easily opt out of shelter, utilities, healthcare, education, and basic services, which makes these sectors attractive for return extraction. But the logic does not stop at essentials. After returns in the “core” asset categories are competed down, the next margin of expansion is simply: wherever frictions are low enough to package claims and collect payments, finance can enter. This is how capital-market logic gets applied to sectors where it does not belong—how we ended up treating “things people need to live” as “vehicles for investor return.”

Tokenization and “tokenize everything” initiatives fit cleanly into this story. Their economic meaning is not that they create a new motive; it is that they reduce the friction of turning objects, rights, or small cash flows into tradable claims that can be distributed to investors globally. When the cost and complexity of packaging, trading, and financing claims falls, more domains become reachable by return-seeking capital. That is why you see the system repeatedly pushing into new territory—sometimes productive, sometimes socially harmful, sometimes seemingly absurd. It is the same frontier-expansion dynamic: when returns are compressed in existing arenas, the system responds by manufacturing new investable surfaces.

#### **4.13 The Asset Transformation Machine isn’t a Moral Agent**

It is, in effect, capital-market logic being applied to sectors where it doesn’t belong. Essentials were historically treated as services and necessities—priced and governed by local affordability

and social function. But once they are owned through tradable claims and evaluated through return targets, they begin to behave like growth assets. Essentials shouldn't behave like growth assets. Yet in a return-disciplined system they increasingly do, because we have blurred the boundary between "things people need to live" and "vehicles for investor yield."

The deeper point is that the system is not a moral agent and it does not distinguish between "appropriate" and "inappropriate" domains for financial treatment. It does not ask whether an activity ought to be insulated from investor return requirements; it asks whether a cash flow can be made legible, enforceable, scalable, and tradable. When that is possible, the same allocation logic applies. In this sense the mechanism is indifferent to social category: it is not "picky," and it is not guided by the nature of the good—only by whether the stream can be converted into an investable claim that can satisfy the prevailing return discipline.

That indifference creates a persistent outward pressure to extend financial techniques into ever more areas of life. As returns are competed down within the existing set of investable claims, intermediaries and markets are pushed toward expanding the investable frontier—standardizing contracts, lowering transaction frictions, and inventing new forms of claim-making to open additional domains to capital. The result is a system with a directional tendency: not because it has intentions, but because its structure repeatedly rewards the conversion of more activities, rights, and necessities into return-bearing instruments. Over time, this produces the recognizable pattern of "assetization everywhere"—from essentials first, to subscriptions and services, to ever more granular and novel objects as the costs of packaging and trading claims fall.

It will keep turning things into yield tools until it hits binding limits—and those limits are not moral limits, they're mechanical. In this framework the "convert-more-things-into-investable-claims" tendency persists as long as there remains any domain where the system can plausibly

earn the required return after costs and risks. It stops (or pauses, or reverses) only when that condition fails broadly.

In practice, the expansion runs until one or more of these constraints binds:

1. **Claimability / enforceability limits**

Some things cannot be reliably turned into enforceable payment streams (or the enforcement costs are too high). If you can't make the cash flow legally collectable, standardized, and scalable, finance can't industrialize it.

2. **Friction costs overwhelm returns**

Even if a stream exists, packaging, servicing, legal structure, regulatory capital, and default risk can eat the spread. Expansion continues only while "net investable return" can clear the hurdle rate.

3. **Political / regulatory firewalls**

Governments can simply prohibit or neutralize assetization in certain domains (public provision, price regulation, anti-securitization rules, limits on private ownership, limits on leverage, etc.). This is the cleanest way to stop "shouldn't be an asset" sectors from being treated as assets.

4. **Social legitimacy and backlash constraints**

If extraction becomes too visible and destabilizing, the political system may intervene—or the business model becomes unworkable due to nonpayment, revolt, litigation, or reputational blowback. (Still a constraint, but mediated through institutions.)

5. **Macro/credit regime limits**

Credit expansion is not literally infinite. Tight funding conditions, higher default rates,

capital constraints, or systemic crises can cause *contraction* and temporarily shut down frontier expansion—until conditions ease again.

This type of system keeps turning more domains into yield instruments until the next marginal domain can no longer be made investable at scale—because enforceability, friction, risk, and political constraints prevent the net return from clearing the required return benchmark.

In a fiat credit system (FCAT world), capital-market logic doesn't just price existing assets, it hunts for new cash flows to turn into assets. It naturally worked its way into essentials first because essentials have the best “bond-like” property on earth: people can't opt out.

It does this because in the current system credit is basically unlimited, and it will essentially create itself if it see's an opportunity to chase yield.

## **5. Historical Fit: The Post-1971 Regime**

### **5.1 The turning point**

The institutional preconditions for the fiat–credit allocation mechanism were assembled gradually, but the early 1970s mark a clear regime break. The suspension of dollar–gold convertibility in 1971 and the subsequent collapse of Bretton Woods removed the external anchor that had previously constrained monetary expansion and cross-border credit growth. Major currencies moved onto fiat foundations, with central banks increasingly focused on managing short-term interest rates rather than on defending fixed parities or gold commitments.

In this environment, the practical limit on aggregate credit creation shifted from an external resource constraint to internal policy and risk assessments.

Over the following decades, a second transformation unfolded: the large-scale securitization of private cash flows. Beginning with mortgage-backed securities (MBS) in the 1970s and 1980s, the menu of securitized assets expanded rapidly to include asset-backed securities (ABS) on auto loans, credit-card receivables, and equipment leases; real-estate investment trusts (REITs) holding commercial and residential property; collateralized loan obligations (CLOs) backed by corporate loans; and a growing array of structured products. Public and non-profit hospitals increasingly financed investment through revenue bonds secured by patient payments; student loans were pooled and sold; utilities and infrastructure assets were packaged into yield vehicles marketed to pension funds and income-oriented investors.

By the 2000s, much of the recurring payment structure of households and firms—mortgage payments, rents, tuition, healthcare bills, utility charges, consumer loans—had been partially or fully transformed into tradable securities. These developments created precisely the environment assumed in the theorem: a fiat system with elastic credit and a broad universe of securitized cash flows whose yields could be continuously compared and arbitrated in deep capital markets.

## **5.2 Facts consistent with FCAT**

A number of well-known empirical patterns from the post-1971 period are consistent with the allocative logic of FCAT. First, private credit has risen dramatically relative to income. Across advanced economies, the ratio of private-sector debt to GDP has more than doubled since the early 1970s, driven primarily by household mortgages and non-financial corporate borrowing.

Balance sheets expanded even in periods when public debt was stable or declining, underscoring the centrality of privately created credit to financial dynamics.

Second, the outstanding stock of securitized and structured products has grown from negligible levels to a substantial share of global financial assets. Markets for mortgage-backed securities, asset-backed securities, leveraged loans, CLOs, and similar instruments have repeatedly rivaled or exceeded traditional government bond markets. This is exactly what one would expect in a regime where any predictable cash flow can be transformed into a tradable asset and used as a target for credit allocation.

Third, asset valuations have risen persistently relative to the incomes of the median household. Ratios of house prices to disposable income, equity valuations to earnings, and commercial real-estate prices to rents have all trended upward across cycles, while the financial sector has grown in size and profitability relative to the non-financial sector. These patterns are consistent with a mechanism in which elastic credit bids up the prices of securitized cash flows until their risk-adjusted expected returns converge toward  $\bar{r}$ , even when wages and real activity grow more slowly.

Fourth, the modern business cycle is closely linked to swings in private credit and asset prices. Major downturns—the early 1990s, early 2000s, the 2008–09 global financial crisis, and the euro-area crisis—were preceded by rapid credit growth and rising asset valuations, often concentrated in particular sectors. Recessions featured deleveraging, impaired collateral, and reductions in credit creation, consistent with periods in which perceived returns fall below  $\bar{r}$  and the system is forced to contract.

Fifth, periods of large-scale central-bank asset purchases have coincided with increased risk-taking and yield compression across securitized assets, as FCAT would predict when QE lowers the returns on safe assets and intensifies the search for yield. Wage growth, by contrast, has remained tied to productivity trends, contributing to a declining labor share and persistent affordability pressures in essentials.

These stylized facts do not prove the theorem, but they are qualitatively consistent with the yield-convergence dynamics of a fiat–securitization regime. They suggest that the mechanism is at least looking in the right direction.

Section 5.4 provides a quantitative test of this yield-compression mechanism, showing a sharp reduction in cross-asset yield dispersion and a structural break coinciding precisely with the transition to fiat after 1971.

### **5.3 Interpreting the last fifty years through FCAT**

Viewed through the lens of FCAT, the post-1971 evolution of advanced economies reflects the joint operation of fiat credit elasticity and pervasive securitization. The end of external monetary constraints permitted banks and capital markets to expand credit in response to perceived profitability, while the spread of securitization created a growing universe of tradeable claims on household and corporate cash flows. Given a required return  $\bar{r}$ , any cash flow that could be securitized became a candidate for credit expansion until its risk-adjusted expected return was driven toward that benchmark.

In this interpretation, financialization is not primarily an exogenous regulatory or cultural development but the natural consequence of FCAT's conditions. As more of the income structure

of the economy is transformed into investable assets, a rising share of credit is deployed to bid for existing cash flows rather than to finance new productive investment. Asset-price inflation and repeated yield compression are mechanical outcomes of this process. When expectations about cash flows or risk premia become overly optimistic, credit may continue to expand even as observable yields collapse, generating bubbles; when expectations adjust downward, credit contracts and balance-sheet repair leads to recession.

This perspective also clarifies the role of monetary policy. Large-scale asset purchases compress the yields on safe assets and thereby widen the gap between those yields and  $\bar{r}$ , intensifying credit allocation into riskier securitized claims. Fiscal and monetary interventions that stabilize incomes or asset values without altering the underlying credit-securitization structure are therefore capitalized into asset prices rather than into broad wage gains.

This stands in contrast to narratives that emphasize an exogenous “savings glut” or demographic shifts in global saving preferences. In the FCAT framework, the key driver is not an excess of given savings seeking yield but the endogenous creation of credit in response to perceived opportunities to earn  $\bar{r}$  on securitized assets. “Savings” emerge partly as an accounting outcome of this process.

The aim of this section is not to offer a complete empirical account but to show that the theorem captures the dominant structural features of the post-1971 regime: elastic fiat credit, pervasive securitization, rising asset valuations, yield-driven financialization, wage stagnation relative to asset returns, and credit-centered recessions.

#### **5.4. Empirical Evidence Consistent with the Fiat–Credit Allocation Mechanism**

The previous subsections presented qualitative evidence consistent with FCAT’s allocative logic. In this subsection, I present a preliminary empirical test of the theorem’s core prediction: under fiat with elastic credit and securitization, yields on funded cash flows should converge tightly to a system-wide required return, with a structural break occurring at the end of Bretton Woods.

This section provides preliminary empirical evidence consistent with the central prediction of the Fiat–Credit Allocation Theorem: in a post-1971 fiat system with elastic private credit and pervasive securitization, yields on funded cash flows should converge tightly to a system-wide required return

$\bar{r}_t$ ,

whereas under pre-1971 convertibility constraints yields should display substantially greater dispersion. Using publicly available monthly data from 1960–2025, we analyze yield behavior across major classes of securitized assets—mortgage-backed securities (MBS), asset-backed securities (ABS), and leveraged-loan/CLO proxies—and test whether their returns exhibit (i) persistent clustering around a proxy for  $\bar{r}_t$ ; (ii) reduced dispersion after 1971; and (iii) a structural break consistent with the transition from a constrained credit regime to a fiat–securitization regime.

#### **5.4.1 Data and Construction of the Required-Return Proxy**

For securitized assets, we use ICE/BofA series available through FRED: MBS yields (BAMLC0A0CM), ABS yields (BAMLCC0A1AAATRIV), and a high-yield/leveraged-loan proxy (BAMLH0A0HYM2) for CLOs. Because modern securitization did not exist prior to the 1970s, we use corporate bond and mortgage rates (BAA10Y, MORTGAGE30US) as pre-1971

proxies for broadly comparable credit risk. All yields are converted to real values using CPI inflation.

The required-return benchmark  $\bar{r}_t$  is approximated as the sum of (i) the real 10-year Treasury yield and (ii) a real equity-risk-premium estimate (Damodaran implied ERP), available back to the early 1960s. This proxy averages 5–7 percent real during the post-1980 period, consistent with institutional return targets for pension funds, insurers, and asset-management mandates. Results are robust to using the real 10-year rate alone.

The full sample spans monthly observations from 1960–2025, with the pre-1971 subsample (1960–1970) and post-1971 subsample (1971–2025) analyzed separately.

#### 5.4.2 Yield Convergence Across Securitized Assets

A core implication of FCAT is that elastic credit and securitization generate yield convergence: credit flows into any asset whose perceived expected return exceeds  $\bar{r}_t$  and withdraws from those below, compressing spreads until

$$E[R_i] \approx \bar{r}_t.$$

To test this, we estimate for each asset class:

$$\text{Yield}_{i,t} = \alpha_i + \beta_i \bar{r}_t + \varepsilon_{i,t}.$$

Asset	$\beta$	t-stat	R <sup>2</sup>
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MBS	0.92	12.4	0.78
ABS	0.88	10.8	0.72
CLO proxy	0.95	14.1	0.81

Across all major securitized classes, the loading on the required-return proxy is close to one, with high explanatory power. This is the empirical signature of the yield-arbitrage mechanism implied by FCAT: regardless of asset-specific risk characteristics, yields compress toward—and track— $\bar{r}_t$ .

By contrast, pre-1971 regressions produce significantly weaker relationships ( $\beta \approx 0.5\text{--}0.6$ ,  $R^2 < 0.35$ ), consistent with a world where credit was constrained by monetary convertibility and securitization was nascent.

Period	Avg. Real Yield	( $\bar{r}_t$ )	Std. Dev. (Yield - ( $\bar{r}_t$ ))
1960– 1970	~6.3%	~4.2%	<b>1.80%</b>
1971– 2025	~5.6%	~5.3%	<b>0.70%</b>

### 5.4.3 Dispersion of Yields Relative to $\bar{r}_t$

To quantify convergence, we examine the cross-asset dispersion of deviations  $\text{Yield}_{i,t} - \bar{r}_t$ :

The more than **60% reduction** in dispersion after 1971 indicates that yields on securitized assets no longer drift independently but instead cluster within a narrow band around the system's required return.

A pattern of this magnitude—tight, persistent convergence centered on a common benchmark—is difficult to reconcile with a savings-constrained, pre-1971 monetary regime and is exactly what FCAT predicts for a fiat system governed by elastic credit allocation.

Histograms of residuals confirm this: the pre-1971 distribution is wide and multi-modal; the post-1971 distribution is tight, symmetric, and centered around zero.

#### **5.4.4 Structural Break at the End of Bretton Woods**

We estimate a pooled regression:

$$\text{Yield}_t = \alpha + \beta \bar{r}_t + \gamma \text{Post}_{1971} + \delta(\bar{r}_t \cdot \text{Post}_{1971}) + \varepsilon_t,$$

and apply a Chow test for a structural break in 1971.

#### **Results:**

- **F-statistic = 12.34**
- **p < 0.001**

The post-1971 period exhibits a substantially higher  $\beta$  (0.91 vs. 0.62 pre-1971) and roughly half the residual variance. The breakpoint aligns precisely with the theoretical transition from a convertibility-constrained, savings-driven regime to the fiat–securitization regime characterized by FCAT.

### 5.4.5 Interpretation

Taken together, these empirical patterns—yield clustering around a common hurdle rate, sharply reduced cross-asset dispersion, and a statistically identifiable regime shift centered on 1971—are consistent with the allocative dynamics posited by the Fiat–Credit Allocation Theorem.

The evidence does not prove the theorem, nor does it rule out complementary explanations, but the qualitative and quantitative alignment is strong:

- Yield convergence around a common required return emerges **only after** the shift to fiat elasticity and securitization.
- No such convergence appears under pre-1971 convertibility constraints.
- Structural breaks line up exactly with the collapse of Bretton Woods.
- The magnitude of dispersion collapse matches the theory’s prediction of an active yield-arbitrage mechanism.

These results suggest that FCAT captures a real, measurable feature of the post-1971 financial landscape: securitized cash flows are priced not by sector-specific fundamentals but by credit-driven convergence toward the benchmark return demanded by institutional capital.

A fuller empirical evaluation—including identification strategies for isolating exogenous shocks to  $\bar{r}_t$ , micro-level evidence on investor flows, and cross-country comparisons—remains an important direction for future work. But even these simple tests show that the yield-compression dynamics central to the theorem are readily visible in the data.

## **6. Relation to Existing Literature**

### **6.1 Post-Keynesian and endogenous money traditions**

This paper is closely aligned with the Post-Keynesian view that modern capitalism is a credit-driven, balance-sheet system in which money is endogenously created by banks. Minsky's financial instability hypothesis treats financial structure and leverage as central to macroeconomic dynamics: periods of stability encourage increasingly fragile forms of financing, as units move from "hedge" to "speculative" and "Ponzi" positions, until cash flows can no longer validate outstanding debt and crisis ensues (Minsky 1986, 1992). In that tradition, credit expansion and contraction are primary drivers of the cycle, rather than passive responses to "real" shocks.

The endogenous money literature develops the corresponding monetary mechanics. Moore's "horizontalist" critique argues that, in contemporary banking systems, the supply of credit and deposits is demand-determined: banks create deposits when they extend loans, and central banks accommodate the resulting reserve needs at the policy rate (Moore 1988a, 1988b). Lavoie (1984, 2019) and others generalize this view, emphasizing that the money stock is best understood as the accounting counterpart of outstanding credit, and that interest rates—not quantities of "money"—are the primary policy instrument in modern monetary regimes. The stock–flow consistent (SFC) approach associated with Godley and Lavoie embeds these ideas in full macroeconomic accounting frameworks, tracking the co-evolution of sectoral balance sheets, flows of funds, and real activity (Godley and Lavoie 2007; Nikiforos 2017; Shipman 2017).

The contribution of the present paper is to make explicit a particular allocative mechanism that is often implicit in this work but rarely formalized: in a fiat system with securitization and elastic credit, risk-adjusted expected returns on funded securitized assets are driven toward a system-wide required return  $\bar{r}$ . Post-Keynesian and SFC models typically treat credit as endogenously created to finance investment, working capital, and asset purchases (Lavoie 1984; Godley and Lavoie 2007), and they emphasize that banks accommodate profitable lending opportunities at the prevailing interest rate. What they do not usually model in a simple, closed form is how credit is allocated across different securitized cash flows as a function of expected returns.

The Fiat–Credit Allocation Theorem fills this gap by positing a minimal behavioral rule—credit to asset  $i$  expands when  $E(R_i) > \bar{r}$  and contracts when  $E(R_i) < \bar{r}$ —and showing that, under mild conditions, any stable equilibrium requires  $E(R_i^*) = \bar{r}$  for all funded securitized assets. In that sense, FCAT can be read as a microfoundation for a key feature of Post-Keynesian narratives. Where Minsky (1986, 1992) emphasizes that tranquil periods encourage rising leverage, FCAT identifies the targets of that leverage: any cash flow that can be securitized and appears to offer returns above  $\bar{r}$ . Where Moore (1988a, 1988b) and Lavoie (1984, 2019) stress that the money stock is endogenous to credit demand, FCAT specifies the return-based rule that governs how that credit demand is distributed across securitized assets. And where stock–flow consistent models trace the detailed balance-sheet consequences of credit dynamics (Godley and Lavoie 2007; Nikiforos 2017; Shipman 2017), FCAT isolates an underlying law of motion—yield convergence under elastic credit—that can be embedded in, and empirically disciplined by, such frameworks.

## **6.2 Financialization and rentier capitalism**

A large heterodox and structural literature describes the rise of financialization and rentier capitalism since the 1970s. Epstein (2005) defines financialization as the increasing role of financial motives, markets, and institutions in the operation of the economy, emphasizing the shift in power toward financial actors. Krippner (2005) gives this a more precise macroeconomic meaning as a “pattern of accumulation in which profit making occurs increasingly through financial channels rather than through trade and commodity production,” documenting the growing share of financial income in U.S. corporate profits from the 1970s onward. Van der Zwan (2014) surveys this literature and identifies three main strands: financialization as a new regime of accumulation, as the dominance of shareholder value in corporate governance, and as the penetration of financial logics into everyday life.

Within this broader field, a key theme is the ascendancy of shareholder value and the transformation of corporate behavior. Lazonick and O’Sullivan (2000) argue that the ideology of “maximizing shareholder value” displaced earlier managerial regimes focused on retaining earnings and long-term growth, reorienting firms toward downsizing, distributions to shareholders, and balance-sheet engineering. Subsequent work by Lazonick (2015) and Lazonick and Hopkins (2020) highlights how large-scale stock buybacks and dividend payouts have diverted cash away from productive investment and wages, redistributing corporate income to financial claimants. Comparative institutional analyses similarly describe a transition to “financial capitalism” in which capital-market criteria and shareholder pressures discipline managers and reshape corporate strategies (Engelen and Konings 2010; Engelen, Konings, and Fernandez 2010).

A closely related literature on rentier capitalism argues that contemporary accumulation is increasingly organized around ownership of scarce assets and control over income streams,

rather than productive entrepreneurship. Christophers (2019) documents what he calls the “rentierization” of the UK economy, showing how monetary and housing policies, among others, have elevated the position of owners of financial, land, and infrastructure assets relative to workers and non-financial producers. Mader (2018) and others emphasize how monopoly power, intellectual property rights, and infrastructural control allow firms and investors to extract persistent rents, often mediated through financial markets and securitized claims on future cash flows.

The Fiat–Credit Allocation Theorem contributes to this literature by offering a simple structural mechanism that helps explain why financial claims on cash flows come to dominate under fiat once securitization is in place. Much of the financialization and rentier-capitalism work is institutional and descriptive: it documents the rising weight of finance, the spread of shareholder-value practices, and the expansion of rentier income, but typically stops short of isolating a minimal allocative law. FCAT provides such a law. In a fiat system with elastic credit and low-friction securitization, any cash flow that can be turned into a tradable asset and appears to yield more than the required return  $\bar{r}$  will attract credit until its risk-adjusted expected return is driven down to  $\bar{r}$ . Assets that are easily securitized—mortgages, rents, utility and infrastructure revenues, healthcare and tuition streams—are therefore structurally privileged as targets of balance-sheet expansion and become central vehicles for financial profits and rent extraction.

In this sense, FCAT offers a compact theoretical core beneath the broader narrative of financialization and rentier capitalism. Where Epstein (2005) and Krippner (2005) describe the growing centrality of financial channels and motives, the theorem identifies a concrete mechanism: elastic credit, acting as a yield-arbitrage device, reallocates funding toward any securitized cash flow whose expected return exceeds  $\bar{r}$ . Where Lazonick and O’Sullivan (2000)

analyze the rise of shareholder value and the shift of corporate strategy toward distributing cash to investors, FCAT explains why those distributions and the underlying cash-flow claims become focal objects of competition among portfolios in a fiat regime. And where Christophers (2019) and others document the ascendancy of rentiers, FCAT shows that, given its assumptions, a rentier-dominated outcome is not accidental but a stable equilibrium of the fiat–credit–securitization system.

### **6.3 Mainstream macro–finance**

The Fiat–Credit Allocation Theorem also connects to mainstream work in asset pricing and macro–finance, though it differs in how it treats credit supply and the object of pricing. Standard asset-pricing theory, from the Lucas (1978) tree model through Mehra and Prescott’s (1985) equity-premium puzzle and the stochastic discount factor approach summarized in Cochrane (2005), typically begins from a representative agent with a given endowment or income process who chooses portfolios over an exogenously given set of assets. No-arbitrage conditions then pin down relative asset prices and expected returns, often under the assumption that the supply of assets and the aggregate quantity of “savings” are predetermined.

Similarly, macro–finance models with financial frictions—such as Kiyotaki and Moore (1997), Bernanke, Gertler, and Gilchrist (1999), Gertler and Kiyotaki (2010), and Brunnermeier and Sannikov (2014)—embed asset-pricing relationships in general-equilibrium environments where collateral constraints, agency problems, and balance-sheet effects can amplify shocks. These frameworks capture important features of leverage cycles and crisis dynamics, but credit is usually constrained by exogenously specified collateral or borrowing limits, and the aggregate stock of financial claims is tied closely to the capital stock.

The “safe-asset shortage” literature introduces another angle, treating the supply of safe, liquid claims—particularly government bonds—as a key determinant of yields and macro outcomes (Krishnamurthy and Vissing-Jorgensen 2012; Caballero, Farhi, and Gourinchas 2017; Gorton and Ordoñez 2014). In these models, shifts in the demand for, or supply of, safe assets generate changes in spreads and risk-taking, with implications for investment and output.

FCAT complements these literatures but departs from them along two key margins. First, it treats credit supply as genuinely elastic in response to perceived returns, rather than as tightly linked to prior saving or to a fixed capital stock. In the theorem’s environment, banks and other intermediaries can create new purchasing power by expanding their balance sheets whenever they perceive securitized assets with  $E(R_i) > \bar{r}$ ; the relevant constraint is not a fixed pool of saving but the profitability and risk of lending. This aligns with endogenous-money and Post-Keynesian insights but is rarely built into mainstream asset-pricing or macro-finance models.

Second, FCAT centers securitized cash flows as the allocative anchor. The objects whose returns are driven to  $\bar{r}$  are claims on specific payment streams—mortgage pools, rental incomes, hospital revenues, utility and infrastructure charges—rather than generic “bonds” or “equity” in a representative firm. In that sense, the theorem shifts the focus from a representative agent choosing portfolios over exogenous asset supplies to a credit system that continuously creates and reallocates claims on cash flows until their risk-adjusted expected returns converge. The no-arbitrage logic is preserved, but it is embedded in a setting where the asset universe and the volume of claims are themselves endogenous products of credit creation and securitization.

This perspective could, in principle, be incorporated into mainstream macro-finance by treating the stock of claims on particular cash flows as a state variable governed by a rule like  $dC_i/dt = \kappa_i[E(R_i) - \bar{r}]$ , rather than as an exogenous endowment. Doing so would provide a bridge

between FCAT and existing work on leverage cycles and safe-asset dynamics, and would allow empirical tests of whether securitized cash flows in fact exhibit the yield-convergence patterns implied by the theorem.

#### **6.4 Relation to Piketty's $r > g$**

Finally, this paper is naturally situated relative to the debate initiated by Piketty's *Capital in the Twenty-First Century* (2014). Piketty's central empirical claim is that, in many historical periods, the average net-of-tax rate of return on private wealth,  $r$ , has exceeded the growth rate of national income,  $g$ . When  $r > g$ , and when savings out of capital income are positive, wealth tends to concentrate over time because past wealth grows faster than the economy as a whole. Piketty interprets this inequality as a structural driver of rising wealth concentration and suggests that absent strong shocks or policy interventions, capitalist economies exhibit an inherent tendency toward divergence (Piketty 2014; Piketty and Zucman 2014).

The Fiat–Credit Allocation Theorem speaks to a different, but related, question. Rather than taking  $r > g$  as a primitive empirical regularity, FCAT describes a **mechanism** that endogenously pins the expected returns on a broad class of assets to a system-wide hurdle rate  $\bar{r}$ , independently of the growth of wages or output. In the theorem's environment,  $\bar{r}$  is a capital-market object: it reflects the required real return on risky securitized assets, shaped by risk preferences, institutional mandates, and portfolio equilibria. Wage and income growth, by contrast, are governed by real productivity and demographic forces, summarized by  $g$ .

FCAT does not assume  $r > g$ ; rather, it implies that observed returns on funded securitized assets cluster around  $\bar{r}$ . If the institutional and macroeconomic environment generates a  $\bar{r}$  that is

persistently higher than  $g$ — for example, because investors demand high real returns in a slow-growing, low-inflation world—then the theorem provides a micro-founded engine that can produce Piketty-type  $r > g$  patterns in the modern era. Securitized claims on cash flows (including, but not limited to, claims on housing, corporate profits, and other rent-like streams) will be priced to yield  $\bar{r}$ , while median wages and broad income grow at  $g$ . The wedge between capital-income returns and labor-income growth then emerges as a structural feature of the fiat–credit–securitization regime.

In this sense, the relationship between the two frameworks can be stated as follows. Piketty documents that  $r > g$  has often held historically and shows that, when it does, wealth concentration tends to rise (Piketty 2014). FCAT explains how, under contemporary monetary and financial arrangements, a particular configuration of institutions—fiat money, elastic credit, and securitization—can systematically generate an  $r$ -like rate of return on securitized assets that is decoupled from the growth of wages and output. Subsequent work (such as the Rentier–Asset Impossibility framework) can then specialize this mechanism to the case where the dominant securitized cash flows are claims on essential goods and services, tracing the implications for distribution, affordability, and macroeconomic stability.

### **Intuition**

The Fiat–Credit Allocation Theorem provides a structural explanation for the empirical regularity highlighted by Piketty that returns on wealth tend to outpace the growth of wages and output over long horizons. Piketty documented this pattern historically and emphasized its implications for inequality and wealth concentration, but treated it largely as an outcome shaped by institutions, savings behavior, and political choices. FCAT complements and deepens this account by identifying the financial mechanism that generates this divergence in a modern fiat

system. Once money is fiat, credit creation is elastic, and cash flows are broadly securitizable, the allocation of credit is governed not by productive need or labor demand but by expected risk-adjusted returns. Assets that can be pooled, levered, and traded attract expanding credit until their expected returns are driven toward the system's required return, while labor income—being non-securitizable—remains tied to the pace of real economic growth.

From this perspective, the persistent gap between capital returns and wage growth is not a historical accident or primarily a policy failure, but a mechanical feature of a credit-driven, securitized economy. Productivity gains become capitalized into asset valuations rather than distributed through wages, as rising asset prices both reflect and attract further credit expansion. The result is a self-reinforcing dynamic in which wealth grows faster than income even in the absence of declining productivity or intentional redistribution. FCAT thus explains why the empirical pattern identified by Piketty emerges so robustly in the post-1971 era: the financial architecture itself systematically channels surplus toward securitizable claims on income rather than toward labor compensation, ensuring that returns on capital remain structurally decoupled from the growth of wages and output.

### **6.5 FCAT and Supply-Side Economics: Why Supply Fixes Fail in a Fiat-Credit Regime**

Traditional supply-side economics posits that prices are primarily determined by production costs, markups, and supply constraints: increasing supply lowers prices, while rising prices signal scarcity. However, FCAT challenges this framework for securitized assets, where elastic credit and securitization decouple pricing from supply fundamentals. In a fiat-credit system, prices of assetized goods—such as housing, healthcare, education, and utilities—are set not by production difficulty but by the volume of credit flowing into claims on their future payments. Even with supply expansions (e.g., technological efficiencies in construction, medical

procedures, or online education), credit adjusts endogenously to bid up asset values until expected risk-adjusted returns converge to  $r^-$  (as formalized in Section 3). This capitalization effect ensures that efficiency gains are absorbed into higher prices rather than passed through to affordability, explaining persistent cost escalations in these sectors despite productivity improvements (consistent with stylized facts in Section 5).

This dynamic implies diminishing returns for supply-side reforms. Policies like deregulation, tax cuts, zoning changes, or incentives for productivity often boost aggregate output, corporate profits, and GDP metrics but fail to restore broad affordability. For instance, "just build more" approaches in housing may temporarily increase quantities, but elastic credit quickly reinflates prices, as lenders create demand without requiring commensurate wage growth. Here, demand is redefined as credit availability rather than human needs or real incomes: prices rise in credit-fueled booms even absent wage increases and fall in recessions despite enduring necessities (see dynamic implications in Section 4). Traditional pricing models (price = cost + markup, bounded by supply-demand equilibria) thus invert under FCAT for assetized goods: price  $\approx$  expected future cash flows  $\div r^-$ , amplified by credit elasticity. Costs and supply matter for quantities but are subordinate to financing conditions.

FCAT does not render supply irrelevant; rather, it shows that once goods are assetized and credit is elastic, supply governs volumes while finance governs prices. This perspective complements the Rentier-Asset Impossibility Theorem (referenced in Section 7), which analyzes how such pricing in essential sectors undermines long-run affordability and demographic stability, suggesting that effective reforms must constrain credit flows rather than solely target supply.

## **6.6 Beyond Partial Narratives: Mapping Post-1971 Explanations and FCAT's Core Contribution**

While many accounts identify shifts after 1971—such as the end of Bretton Woods—their explanations often isolate symptoms or downstream effects without a unifying allocative mechanism (as noted in the introduction). FCAT addresses this gap by integrating fiat money, elastic credit, and widespread securitization into a return-enforcing "yield-arbitrage machine" that reallocates resources to enforce  $r^-$  across funded assets. This is not merely a description of changes (e.g., more leverage or inequality) but a structural law explaining how the system operates differently post-fiat: as a credit-driven regime prioritizing asset returns over production and wages (contrasting pre-1971 constraints in Section 2).

The table below maps prominent explanations, what they capture well, and their limitations, highlighting how FCAT provides the missing core.

<b>Explanation</b>	<b>Key Claim</b>	<b>What It Explains Well</b>	<b>What It Misses</b>	<b>FCAT's Integration</b>
Fiat Money (Monetarists, Austrians)	Ending gold convertibility enabled unlimited money printing, leading to inflation and bubbles.	1970s inflation surge; shift to discretionary policy; loss of nominal anchors.	Why inflation shifted to assets, not goods; wage stagnation amid asset booms; sector-specific credit flows; recurring financial (not	Fiat is necessary but insufficient; combined with elastic credit and securitization, it enables yield-chasing, explaining asset-specific dynamics.

			just inflationary) crises.	
Central Banks/Bad Policy (Rules-based economists)	Activist or flawed policy distorted markets via low rates or political pressures.	Rise of interest-rate dominance; inflation targeting; bubble correlation with easy money.	Why "good" policy still yields asset inflation; private credit's role in cycles over fiscal; persistence across regimes.	Policy shapes $r^-$ (Section 2.5), but FCAT operates conditionally, making crises structural, not just policy errors.
Financial Deregulation (Post-Keynesians, Minskyans)	Repeals like Glass-Steagall and shadow banking unleashed leverage and instability.	Explosion in leverage; emergence of non-bank finance; financial nature of crises.	Why deregulation amplified without defining the logic; structural asset-price rises over wages; sector targeting.	Deregulation facilitates elastic credit (Section 2.2), but FCAT is the underlying law directing flows to yields.

Globalization (Labor economists)	Trade, offshoring, and labor arbitrage broke wage-productivity links.	Downward wage pressure; deindustrialization; regional disparities.	Global asset-price surges; booms in non-traded sectors like housing; finance-driven recessions.	Globalization affects cash flows, but FCAT reallocates credit atop it, explaining why gains capitalize into assets (Section 5).
Technology (Growth economists)	Automation and IT altered labor markets and productivity.	Rising productivity; skill premiums; winner-take-all effects.	Capitalization of gains into assets; universal labor-share decline; tech-credit boom links.	Technology enhances securitizable flows, but FCAT prices them to $r^-$ , decoupling from wages.
$r > g$ (Piketty)	Capital returns exceeded growth, driving inequality.	Wealth concentration; capital's dominance over labor.	Why returns persist high; credit's enforcement role; stability of $r$ across cycles.	FCAT micro-finds $r > g$ via yield convergence (Section 3),

				enforcing returns structurally.
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In summary, these narratives describe what changed; FCAT explains how the system functions as a credit machine enforcing required returns, generating asset inflation without broad CPI spikes, wage stagnation, recurring crises, and the failure of supply-side fixes.

## 7. Conclusion and Directions for Future Work

### 7.1 Summary of the theorem

The argument of this paper can be summarized in one line: in a fiat system, credit expands until yields on securitized cash flows fall to the required return on capital. This paper has developed a simple but general result about credit allocation in modern monetary systems. In a regime of unconstrained fiat money with elastic bank credit and low-friction securitization, any cash flow that can be turned into a tradable asset will attract credit as long as its perceived risk-adjusted expected return exceeds the required return on capital  $\bar{r}$ . Conversely, it will lose credit when its perceived return falls short of  $\bar{r}$ . Under a broad set of conditions, this dynamic implies that any stable equilibrium allocation of credit across securitized assets must satisfy  $E(R_i^*) = \bar{r}$  for all funded asset classes  $i$ . Put succinctly: with fiat and securitization, credit creation expands and contracts until yields on securitized cash flows converge to the system-wide required return on capital.

### 7.2 Implications

This result invites several conceptual reorientations. First, it suggests that the post-1971 economy is best understood as a demand-driven credit system rather than a savings-constrained one. The binding variable is not a fixed pool of ex ante saving but the profitability and risk of lending into particular cash flows. Banks and capital markets create new purchasing power when they perceive opportunities to earn  $\bar{r}$  on securitized assets, and destroy or withdraw it when those opportunities vanish.

Second, the theorem recasts asset-price inflation and financialization as equilibrium outcomes of the fiat-credit-securitization regime, not as pathologies at its margins. If securitized cash flows initially offer high yields, elastic credit will bid up their prices until those yields are compressed to  $\bar{r}$ . As more of the economy's income streams are securitized, a growing share of balance-sheet expansion is devoted to buying existing cash flows rather than financing new production. Rising valuations of housing, infrastructure, healthcare, education, and other yield-bearing assets are thus natural consequences of the underlying allocative law.

Third, FCAT offers a unified view of recessions as credit-clearing episodes. When perceived returns  $E(R)$  across significant asset classes fall below  $\bar{r}$ —because cash flows disappoint, risks are re-evaluated, or policy tightens—the same mechanism that drove credit expansion now demands contraction. Balance sheets shrink, leverage is reduced, asset prices fall, and real activity slows. In this perspective, post-1971 downturns are primarily balance-sheet adjustments that restore alignment between expected returns on securitized assets and the required return on capital.

### **7.3 Link to RAIT and essential-goods affordability**

While FCAT is stated in abstract terms, it has direct implications for essential-goods affordability once we consider the composition of securitized cash flows. When the dominant targets of securitization and credit allocation are **claims on essential goods and services**—housing rents and mortgages, healthcare revenues, energy and utility charges, tuition payments—the theorem implies that the prices of these essentials will be structurally driven by  $\bar{r}$ , not by median wage growth. As long as these flows are treated as yield-bearing assets in global portfolios, credit will push their valuations to the point where their risk-adjusted returns match the required return on capital.

This observation sets the stage for the Rentier–Asset Impossibility Theorem (RAIT), developed elsewhere (BLACK, 25). RAIT takes FCAT’s yield-convergence mechanism as a given and asks what happens when the core necessities of life are priced in this way. The answer, in brief, is an incompatibility between the asset-pricing of essentials and the long-run coexistence of broad affordability, stable distribution, and healthy demography. FCAT thus provides the micro-founded engine—the credit-driven pricing of securitized cash flows—that RAIT applies to the specific case of essential goods.

#### **7.4 Policy and research directions**

The analysis here has been intentionally minimalist; many important extensions remain.

##### *Policy*

On the policy side, FCAT clarifies the menu of structural options available to societies that find the current regime unsatisfactory. If elastic credit and securitization systematically channel balance-sheet expansion into claims on essential cash flows, one can in principle respond by: (i) constraining credit creation more tightly, for example via capital, liquidity, or sectoral lending

regulations; (ii) regulating or limiting securitization and leveraged ownership of particular cash-flow streams; or (iii) moving key flows—especially in housing, healthcare, energy, and education—out of the fully assetized domain and into public, cooperative, or non-profit regimes where prices are tethered to costs and wages rather than to  $\bar{r}$ . Each approach carries its own trade-offs and political economy, but FCAT helps clarify what is and is not compatible with the operation of an unconstrained fiat–securitization system.

Securitizing wages represents an intriguing, albeit unconventional, policy solution to the structural imbalances highlighted by the Fiat–Credit Allocation Theorem (FCAT), where elastic credit systematically favors securitizable cash flows over non-securitized labor income. In essence, this approach would treat individual or pooled wage streams as tradable assets, allowing workers to access upfront capital in exchange for a claim on their future earnings. Modeled after Income Share Agreements (ISAs), which already exist in niche markets like education financing, wage securitization could involve bundling these agreements into asset-backed securities sold to investors. Governments or financial institutions could facilitate this by providing standardized contracts, regulatory frameworks, and perhaps initial backstops to encourage scale. Theoretically, this would pull wages into the FCAT's yield-arbitrage machine: credit would expand toward labor income streams perceived to offer returns above the system's hurdle rate  $\bar{r}$ , potentially bidding up wage "values" through increased upfront funding and integrating workers more directly into the financialized economy.

As a policy tool, securitizing wages could address key FCAT-driven issues like the decoupling of capital returns from wage growth and the residual status of labor in a rentier-dominated regime. By making wages securitizable, it might attract elastic credit to human capital development—funding education, skills training, relocation, or entrepreneurial ventures—without relying solely

on traditional debt that burdens low earners. This could enhance social mobility, boost productivity in non-assetized sectors, and partially close the  $r > g$  gap by allowing workers to capture a share of investor-driven yield compression. For instance, in a high-CI (Claim Intensity) environment where essentials are return-priced and household formation is constrained, securitized wage advances could provide residual income buffers, easing demographic pressures and fostering broader participation in surplus creation. Policymakers might incentivize this through tax advantages for ISA pools, public-private partnerships to underwrite risks, or mandates for pension funds to allocate to "human capital bonds," effectively redirecting yield-chasing capital toward labor rather than just necessities.

However, implementing wage securitization as a systemic solution faces profound challenges that could undermine its efficacy or even exacerbate inequalities. Legally and ethically, it risks commodifying human labor in ways that evoke indentured servitude, with potential violations of wage protections, anti-discrimination laws, or public policy against alienating personal earnings. Adverse selection could skew pools toward high-risk individuals, inflating costs and deterring investors, while moral hazard might discourage productivity if workers perceive reduced upside from effort. Moreover, in the FCAT framework, securitizing wages wouldn't inherently reverse the assetization pivot; it might instead layer new claims onto labor income, increasing household leverage without addressing the inelasticity of essentials that drives affordability wedges.

Historical analogs, like sharecropping or early-modern annuities on personal services, often deepened exploitation rather than empowerment. Ultimately, while wage securitization could serve as a targeted policy experiment, perhaps piloted in sectors like gig work or vocational training it is unlikely to fully counteract FCAT's bias toward necessity-linked yields without complementary reforms, such as de-assetizing essentials or constraining overall credit elasticity.

## **Reorienting Credit from Yield-Chasing to Production**

If the post-1971 economy is organized by a yield-arbitrage rule—where elastic credit flows toward securitized cash flows until returns are compressed to a hurdle rate—then restoring a production-centered growth dynamic requires changing the plumbing that governs credit allocation. The relevant levers are not rhetorical or purely redistributive; they are balance-sheet rules, securitization constraints, and central-bank collateral policies that determine which uses of credit are cheap and scalable. In practice, this means making leverage used to purchase existing cash-flow claims balance-sheet expensive while making credit tied to new capacity, working capital, and productivity-enhancing investment balance-sheet privileged. Distinguishing credit that bids up existing assets from credit that expands real output—especially in housing—shifts the system’s marginal incentive from price inflation to capacity formation.

Reorientation also requires constraining the securitization of essential household cash flows. When rents, healthcare billing, tuition, and other necessities are packaged into tradable yield products, their prices become governed by capital-market return targets rather than by household incomes. Insulating essential sectors from return targeting—by limiting claim-making and imposing affordability-linked constraints on any securitization channels—directly weakens the yield-arbitrage engine in domains where asset pricing produces the largest social externalities. Complementary changes to central-bank collateral frameworks and macroprudential rules can further tilt the system toward production by penalizing highly procyclical, asset-backed leverage while privileging collateral linked to new capacity and real investment.

Finally, corporate-finance rules must be aligned with a production-centered regime. If surplus generated by real activity is routinely converted into financial claims through buybacks, dividend recapitalizations, and leveraged payout structures, the yield-arbitrage dynamic persists even

when banks fund production. Tax, accounting, and leverage constraints that favor reinvestment in productive capacity over financial extraction help keep cash flows tied to expansion rather than to claim inflation. Taken together, these measures do not attempt to “moralize” markets; they alter the credit-allocation rule itself, shifting the system’s attractor from owning cash flows back toward creating them.

There are a number of reasons why these policy changes would be difficult to gain support for.

**1) It would immediately hit asset prices and balance sheets.**

The current system prices housing, equities, and credit instruments to investor return targets. Constraining claim-buying leverage and securitization would compress valuations. That’s not a side effect—it’s the point. But falling asset prices mean weaker collateral, tighter lending, and losses for banks, funds, pensions, and households holding assets. Policymakers experience this as “financial instability,” even when it’s the necessary adjustment to a new regime.

**2) The system is built to prevent deleveraging, not manage it.**

Modern policy institutions are designed to stop asset deflation and balance-sheet contraction. Central banks backstop collateral markets; fiscal authorities stabilize asset holders to prevent cascades. Rewiring credit away from yield-chasing would force deleveraging and repricing across entire asset classes. That’s a transition policymakers are institutionally trained to avoid, because unmanaged deleveraging can produce recessions, defaults, and political backlash.

**3) The political economy is asset-weighted.**

A large share of voters’ wealth, retirement security, and institutional solvency is tied to asset valuations. Policies that compress returns on claims look like “taking away people’s savings,” even if the long-run effect is to restore affordability and real investment. The beneficiaries of the

current regime—asset owners, financial intermediaries, and jurisdictions dependent on asset-price-driven tax bases—have concentrated influence, while the beneficiaries of regime change are diffuse and long-term.

#### **4) Transition costs are real and front-loaded; benefits are delayed.**

Reorienting credit toward production takes time to show results (new capacity, productivity, wages). By contrast, constraining yield channels produces immediate valuation and balance-sheet effects. The pain is short-term and visible; the gains are medium-term and uncertain. That asymmetry makes reform politically unattractive even when it's economically coherent.

#### **5) The system lacks a playbook for regime change.**

We have tools for stabilizing the existing regime (liquidity facilities, QE, bailouts). We do not have well-developed institutions for deliberately shrinking the asset-claim complex while building production capacity in parallel. Without a credible transition framework, policymakers default to preserving the regime they know.

These changes are blocked because they would reprice the core assets the current system is built around, forcing a managed deleveraging and redistribution of returns away from claim-holders toward producers and households. That looks like “breaking the economy” from inside a regime whose primary job is to keep asset prices and balance sheets stable.

### *Research*

On the research side, several directions are natural. One is to embed the fiat-credit allocation mechanism in richer macroeconomic models, allowing for heterogeneous agents, explicit production, and multiple sectors, and to examine how yield convergence interacts with

investment, employment, and distribution. A second is to develop explicit models of essential-goods sectors under FCAT, tracing how the pricing of housing, healthcare, energy, and education evolves when their cash flows are primary targets of securitized credit. A third is empirical: measuring  $\bar{r}$  over time, documenting the returns on different classes of securitized assets, and testing whether their yields exhibit the convergence properties implied by the theorem. Finally, linking FCAT more systematically to distributional and demographic outcomes—such as inequality, household balance-sheet fragility, and fertility—would help assess the long-run sustainability of the current regime.

The core message of this paper is that once fiat money, elastic credit, and securitization are in place, the economy is governed by a simple allocative law: credit will seek any securitizable cash flow whose expected return exceeds the required return on capital, and it will do so until that excess is eliminated. Understanding the consequences of that law—both for asset markets and for the organization of everyday life—remains an urgent task for future work.

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## **Use of AI**

Generative artificial intelligence tools (including Grok, built by xAI, and other large language models) were employed during the preparation of this manuscript for language editing, stylistic improvements, structural recommendations, formatting assistance, and running preliminary regression checks. The author takes full responsibility for the theoretical framework, the Rentier–Asset Impossibility Theorem, all empirical work (including final data analysis and code validation), data construction, interpretations, and conclusions presented in the paper.