DOI https://doi.org/10.30525/2661-5150/2026-2-5

A SCALABLE FRAMEWORK FOR INTEGRATING SUBJECT-TO AGREEMENTS IN AUTOMOTIVE TRANSACTIONS

Oleksandr Korinnyi[1]

Abstract. *Purpose.* This research investigates an innovative approach to the management of distressed assets within the U.S. automotive finance market amidst macroeconomic instability. The author proposes a scalable model for the integration of "Subject-to" transactions with short-term peer-to-peer (P2P) rental ecosystems (Turo, Getaround). *Methodology*. The study provides a granular analysis of the interest rate arbitrage mechanism, preserving existing low interest rates on current loans, thereby enabling the transformation of default obligations into high-yield rental assets. Particular attention is devoted to operational transparency through the utilization of third-party services and predictive AI analytics. *Results.* The research findings demonstrate that the Subject2 model provides a manifold increase in ROI (up to 590%) compared to traditional financing and contributes to the stabilization of the financial sector, preventing mass repossessions and protecting borrowers' credit ratings. *Practical implications*. Beyond individual profitability, the research positions the Subject2 model as a strategic instrument for "Restructuring-as-a-Service", transforming imminent defaults into stabilizing factors for the U.S. financial ecosystem. The framework addresses a matter of national economic security by preventing the systemic degradation of household creditworthiness. *Value / originality*. Schematic contract templates and a framework illustrating the protective attributes of the proposed model are also presented.

Keywords: automotive financing, Subject-to transactions, sharing economy, peer-to-peer (P2P) rentals, Turo, risk management, credit default.

JEL Classification: G32, G21, D81, L62, L86

1. Introduction

The contemporary automotive financing market in the United States is currently undergoing a period of significant turbulence. Amidst macroeconomic instability and rising interest rates, there is a precipitous increase in the volume of automotive loan defaults (Federal Reserve Bank of New York, 2024). This trend precipitates substantial economic losses, as creditors are compelled to initiate costly repossession procedures, ultimately resulting in the liquidation of assets at auctions with significant discounts. Undeniably, this profoundly destabilizes the financial sector and inflicts long-term damage upon the credit ratings of borrowers, depriving them of both mobility and financial resilience (Experian Automotive, 2024).

Concurrently with the crisis in the lending segment, there is a vigorous expansion of the sharing economy (Hampshire et al., 2011). Peer-to-peer (P2P) car-sharing platforms, such as Turo and Getaround, exhibit robust demand for vehicles, yet they encounter barriers due to the limited supply of high-quality automotive fleets. Conventional mechanisms for safeguarding market participant interests are presently incapable of effectively unifying these two trajectories, as borrowers remain vulnerable to the threat of default, while P2P rental investors are constrained by high entry costs and the complexity of securing new financing (Einav, Farronato & Levin, 2016).

Under these circumstances, there arises a necessity to identify alternative financial instruments capable of transforming distressed debt into a performing asset. One of the most promising approaches is the adaptation of "Subject-to" transactions for the automotive market. The essence of this model lies in the transfer of ownership and management rights of the vehicle to a new party while maintaining the extant financing terms. This facilitates the prevention of default, ensures uninterrupted payments to the creditor, and directs the liberated asset into the P2P rental ecosystem to generate cash flow.

The objective of this article is the development and substantiation of a comprehensive, scalable model for

[1] Admiral Makarov National Shipbuilding University, Ukraine
E-mail: oleksandr.korinnyi@yahoo.com
ORCID: https://orcid.org/0009-0001-8176-5683

utilizing "Subject-to" transactions within the automotive purchase and sale sector. The proposed model aims to minimize automotive loan default occurrences while simultaneously stimulating the development of P2P car-sharing infrastructure. Within the scope of this research, the economic, financial and legal benefits for all stakeholders – creditor banks, current owners (borrowers) and rental platform operators will be demonstrated.

To achieve the stated objective, the study addresses three core tasks: conducting a profound analysis of contemporary default trends and repossession procedures in the U.S. market, providing a quantitative and qualitative assessment of direct and indirect losses for credit institutions and the national economy as a whole and the formulation and description of a financial-operational model for implementing the "Subject-to" mechanism as a systemic solution for managing distressed automotive assets.

The scientific relevance of this research is dictated by the necessity of identifying flexible anti-crisis mechanisms at the nexus of classical banking and the sharing economy. The implementation of the "Subject-to" model transforms default risk into an investment opportunity, ensuring the protection of borrower interests while simultaneously establishing a sustainable resource base for scaling P2P car sharing. This study offers a solution that mitigates the financial losses of market participants and establishes the foundation for the development of an innovative infrastructure for collaborative consumption.

2. Literature Review and Current Practices

An analysis of the current landscape within the U.S. automotive financing market indicates the emergence of a systemic crisis, the proportions of which are increasingly compared to the notorious 2008 subprime mortgage crisis (Consumer Financial Protection Bureau, 2023). According to data from the Federal Reserve Bank of New York and reports from major credit bureaus, auto loan delinquency rates (60+ days) have reached their highest peaks in the last 15 years. The primary drivers are high inflation, escalating interest rates and the aggressive lending policies of previous years (Adams et al., 2024).

The economic ramifications of defaults extend far beyond the immediate losses sustained by financial institutions serving as creditors. For instance, involuntary vehicle repossession incurs losses of up to 30-50% of the asset`s market value due to auction-related expenditures and depreciation (Cox Automotive, 2024). This gives rise to a state of negative equity (the "upside-down" phenomenon), where the outstanding loan balance significantly exceeds the borrower`s equity in the vehicle`s market value, effectively precluding them from exiting the debt spiral through traditional sales.

As an alternative to conventional distressed debt resolution methods, scholarly literature increasingly considers the adaptation of real estate mechanisms, specifically "Subject-to" transactions. In classic real estate practice, a "Subject-to" strategy entails the transfer of title while maintaining the existing financing terms (interest rate and payment schedule) in the original seller`s name (Mann & Roberts, 2020). Researchers note that the potential adaptation of this instrument for automotive financing allows for the preservation of "cheap" debt originated during low-rate environments, thereby enhancing the asset`s attractiveness to investors (Keys et al., 2019). A critical barrier remains the legal interpretation of due-on-sale clauses. However, the flexibility of contemporary contractual frameworks provides avenues for the creation of trust structures or sublease models (Levitin, 2023).

In this context, the efficacy of the "Subject-to" model is directly correlated with the asset`s ability to generate cash flow, leading to an analysis of the peer-to-peer (P2P) car-sharing sector. Modern platforms such as Turo and Getaround have demonstrated the resilience of the sharing economy business model, yet they have encountered supply-side constraints (Statistica, 2024). High ownership costs and the difficulties of securing new credit limit the influx of new participants (hosts). Literature on the sharing economy suggests that integrating vehicles on the verge of default into the P2P ecosystem can satisfy the market`s need for inventory. Furthermore, utilizing the "Subject-to" model allows investors to enter the business without the necessity of obtaining new, high-cost financing by leveraging the vehicle`s existing credit.

To scale such solutions and ensuring long-term market stability, institutional benchmarks are necessitated, comparable to the mechanisms of Fannie Mae and Freddie Mac in the mortgage sector. These organizations established a liquidity standard through the purchase and securitization of loans, thereby ensuring creditor protection and housing accessibility (Möhlmann et al., 2018). Comparison with these instruments reveals that the development of analogous standards for transparency and the protection of primary lenders' interests is critical for the automotive Subject-to segment. Establishing a secondary market for auto loan management rights, akin to U.S. Government-Sponsored Enterprises (GSE), would facilitate the standardization of default risks and ensure an influx of institutional capital into the P2P rental sphere, transforming high-risk auto loans into liquid financial instruments (Furfine, 2010).

Of particular interest to this research is the activity of American investment communities and fintech platforms that have begun to systematize "Subject-to"

transactions specifically for the automotive market. A prominent example is the "SubTo Car" methodology, popularized within creative financing communities (projects by Pace Morby) (National Consumer Law Center, 2023). Unlike the haphazard attempts by private individuals to transfer payments, this practice relies on the use of standardized legal contracts and third-party servicers (Pereira Coelho et al., 2024). These companies function as neutral intermediaries. They accept payments from the new owner (investor) and remit them directly to the creditor bank, thereby minimizing the risk of misappropriation and ensuring transparency for all stakeholders.

Within the context of P2P car sharing, the activities of "Power hosts" on the Turo platform serve as a successful example of debt obligation integration. In an environment, where traditional small business lending limits are rapidly exhausted, professional fleet operators have begun employing Subject-to-like mechanisms to acquire vehicles from private individuals in pre-default states. This enables investors to acquire assets while preserving low interest rates (locked in prior to 2022-2023), which is fundamentally critical for the profitability of the rental business (Gössling & Cohen, 2014).

Furthermore, the emergence of specialized services such as SellerFinance.io (and similar fintech solutions) warrants mention, as they attempt to automate the accounting process for creative transactions. These platforms establish the necessary infrastructure for record-keeping, analogous to the systems present in the mortgage market. The experience of these firms demonstrates that the primary obstacle to scaling is not a lack of demand, but rather the absence of a unified trust protocol between the primary creditor and the new asset manager. Consequently, existing practice confirms the viability of the model at the micro-level while highlighting the institutional vacuum that the model proposed in this article is designed to fill.

3. Analysis of the Market and Existing Problems

The current state of the U.S. automotive financing market is characterized by an unprecedented escalation in debt burden, which has surpassed the $1.6 trillion threshold (Board of Governors of the Federal Reserve System, 2024). Against a backdrop of a protracted period of elevated interest rates and inflationary pressures on households, default statistics exhibit alarming dynamics. The prevalence of serious delinquencies (60 days or more) among subprime borrowers has reached its highest level since 1994 (TransUnion, 2024). This situation precipitates a "credit tsunami" effect and a veritable catastrophe, where thousands of vehicle owners daily lose the capacity to service their obligations. For the borrower, default entails irreversible consequences, as a precipitous decline in credit scores (averaging 200-300 points) precludes access to financial services for years, while the loss of a vehicle in a country with sparse public transit infrastructure often results in employment termination and further degradation of financial status (Assunção et al., 2014). For the American consumer, the FICO score serves as a financial passport, and its decimation (by 200-300 points) creates long-term economic exclusion. By preventing this, the Subject2 model preserves an estimated $45000 to $60000 in future household disposable income that would otherwise be lost to surcharged interest rates over the subsequent decade.

For credit institutions, the predicament is further compounded by the inefficiency of the classical repossession mechanism. The vehicle seizure process is associated with high operational expenditures, encompassing recovery service fees, transportation, storage and pre-sale preparation. Upon asset liquidation at auctions, creditors incur average losses ranging from 30% to 50% of the outstanding loan balance due to steep discounting and market volatility. These losses directly impact bank liquidity and compel them to tighten lending standards for new originations, which further decelerates fleet renewal rates and exerts pressure on the automotive industry as a whole. The implementation of this framework acts as a "safety valve" for the banking sector, allowing institutions to purge their balance sheets of "toxic" indicators without sacrificing interest income or incurring the $8000–$12000 loss typical of a single vehicle repossession.

Concurrent with the lending crisis, the peer-to-peer (P2P) car rental segment encounters growth barriers stemming from a supply deficit. Prominent platforms such as Turo and Getaround experience an acute requirement for high-quality inventory. However, potential hosts (fleet owners) are constrained in their expansion capabilities. Elevated interest rates on new commercial loans (reaching 10–15% for small businesses) render traditional vehicle acquisition for rental purposes economically non-viable. Consequently, small-scale operators are deprived of scalability, while the rental market suffers from inflated pricing and restricted consumer choice.

Within this multifaceted spectrum of challenges, the Subject2 transaction mechanism emerges as a key link capable of radically minimizing the incidence of defaults and repossession procedures. In lieu of involuntary asset seizure, the model facilitates the transfer of vehicle management and payment obligations to a professional P2P rental market participant while maintaining extant financing terms. The economic impact of implementing this model is of a complex nature. On one hand, the creditor continues to receive scheduled payments without incurring losses from auction liquidation. On the other hand, the borrower preserves their credit rating and is relieved of the debt burden. Ultimately, the

investor acquires an asset with low-cost financing locked in prior to the rate hike period. Consequently, the transformation of a distressed loan into a performing asset via Subject2 establishes a resilient ecosystem capable of absorbing market shocks and stimulating the development of the sharing economy.

The current crisis is particularly exacerbated by the widespread prevalence of the aforementioned negative equity phenomenon, a consequence of a sharp correction in secondary market prices following their 2022 peak. In contemporary U.S. practice, a substantial portion of borrowers has become ensnared in a debt trap – the market value of their vehicles is currently 20-40% lower than the outstanding loan balance. For example, the owner of an electric vehicle purchased during a period of scarcity may confront a scenario where the bank debt totals $40000, while the asset`s market price has plummeted to $25000. Under such conditions, a traditional vehicle sale is impossible without a lump-sum payment of the $15000 deficiency by the owner, rendering default and subsequent repossession virtually inevitable. Within this problematic context, the Subject2 transaction serves as the sole rational solution, permitting the transfer of asset management to an investor without the necessity of satisfying the "underwater" portion of the debt.

Parallel to technical defaults, the market is witnessing an increase in so-called "voluntary repossessions". According to data from Cox Automotive and Experian, the total cost of ownership (TCO) – encompassing insurance, fuel and maintenance has, for the first time in U.S. history, surpassed the psychological threshold of $1000 per month for new vehicles (Bureau of Labor Statistics, 2024). For many middle-class households, the vehicle has transformed from an asset into an insupportable financial encumbrance. In scenarios, where the monthly loan installment becomes irrational relative to income, borrowers consciously opt for default to stem the outflow of funds, even at the cost of credit score decimation. The implementation of the Subject2 model facilitates the interception of such assets prior to the official cessation of payments, transforming the borrower`s passive liability into a functional instrument for a professional operator.

A critical impediment to the expansion of small-scale operators on the Turo and Getaround platforms has been the current cost of capital. Where in 2020-2021, loans originated at 3-5% per annum, contemporary commercial rates for small businesses reach 11-14% APR (Bankrate, 2026). Such an interest rate differential renders the acquisition of new vehicles for rental purposes economically unviable, as operating profits are almost entirely absorbed by interest expenses. The Subject2 model establishes a unique opportunity for interest rate arbitrage, as the professional host assumes management of the vehicle while preserving the historical low rate. The 8-10% annual spread between historical and current financing becomes the investor`s direct margin, ensuring the financial sustainability of the business model and establishing conditions for a large-scale influx of liquid inventory into the P2P rental sector (Table 1).

4. Research Methodology

The methodological framework of this research is predicated upon an interdisciplinary approach that integrates quantitative analysis of macroeconomic indicators, financial modeling and the legal deductive method (Damodaran, 2022). The study aims to verify the hypothesis that the integration of distressed automotive assets into the P2P rental ecosystem via the Subject2 mechanism is capable of radically mitigating creditors` financial risks while simultaneously ensuring the scalability of small businesses within the transportation sector.

To ensure the reliability of the results, a multi-level data array is utilized as information sources. The empirical foundation of the research is composed of open databases from the U.S. Federal Reserve System (FRED), analytical reports from major credit bureaus (Experian, TransUnion) and statistics from the Consumer Financial Protection Bureau (CFPB)

Table 1
Auto loan delinquency statistics and Subject2 market potential by key U.S. regions (2024–2025 estimates)

Region / State	Delinquency Rate (60+ Days)	Annual repossession volume (est. Units)	Average negative equity per vehicle ($)	P2P rental demand index (0–10)
Florida (FL)	6.2%	145	$9,400	9.8
Texas (TX)	5.8%	162	$11,200	8.5
California (CA)	4.9%	128	$12,500	9.5
Nevada (NV)	6.5%	42	$8,800	9.2
Georgia (GA)	6.1%	88	$9,100	7.8
North Carolina (NC)	5.4%	74	$8,600	8.2
Arizona (AZ)	5.2%	55	$7,900	8.0
Illinois (IL)	4.7%	68	$7,200	7.4
Michigan (MI)	5.0%	62	$6,800	6.5
New York (NY)	4.2%	94	$10,500	8.9

Source: based on Bankrate (2026), Bureau of Labor Statistics (2024)

portal. These data facilitate the tracking of default dynamics and repossession volumes categorized by state and borrower credit ratings for the period 2019-2025. The microeconomic data level is represented by performance indicators from the Turo and Getaround platforms, including average Revenue Per Unit (RPU) and fleet utilization rates. Additionally, the study utilizes depersonalized case studies from automotive dealers and specialized platforms for the disposal of distressed assets, providing an opportunity to assess actual discounts during the auction sale of repossessed vehicles.

The analytical methods applied in the work are divided into three sequential stages. In the first stage, statistical analysis and clustering of default data are conducted to identify regions with the largest discrepancy between the vehicle`s market value and the outstanding loan balance. In the second stage, financial modeling is applied to calculate the Net Present Value (NPV) and Internal Rate of Return (IRR) of Subject2 transactions in comparison with traditional bank financing. The final stage involves simulation modeling (Monte Carlo simulations) of the fleet formation process (Glasserman, 2003). This allows for the prediction of the model`s resilience to fluctuations in rental market prices and potential changes in discount rates, determining the inflection point at which the Subject2 strategy becomes more financially efficient than classical asset acquisition.

Particular attention in the methodology is devoted to legal analysis, which serves as an instrument for mitigating legal risks. Within this stage, a deconstruction of "Due-on-Sale Clause" provisions is performed alongside a search for legitimate equitable interest transfer mechanisms without breaching credit agreements (National Consumer Law Center, 2023). The research includes the development of multi-party agreement templates regulating the relationships between the primary borrower, the new manager (investor) and the intermediary servicing company. The legal analysis also encompasses insurance matters (gap insurance) and liability within P2P platforms, facilitating the formation of a comprehensive system for protecting the interests of all transaction participants and creating a legal precedent for scaling the model at the institutional level.

A significant addition to the methodology is the implementation of a risk quantification matrix designed to rank potential Subject2 transactions by their level of financial and legal vulnerability. Within this method, a system of weighted coefficients is utilized, accounting for the type of primary creditor (major national banks versus local credit unions), the magnitude of negative equity and the specificities of title transfer provisions in a given state. Each potential transaction is evaluated on a point scale, where the risk of triggering the Due-on-Sale clause and the borrower`s insurance profile carry critical weight. Such an approach facilitates the transformation of the theoretical Subject2 concept into an algorithmic decision-making tool, minimizing subjectivity in the selection of assets for fleet formation.

Given that the Subject2 model directly impacts the interests of individuals in difficult financial circumstances, the methodology incorporates a socio-ethical validation framework. The author proposes a method for assessing long-term social impact based on the preservation of borrower creditworthiness and the prevention of financial stigmatization, which is inevitable in repossession procedures. The quantitative assessment of this effect is expressed through the projected difference in the cost of future borrowing for the transaction participant before and after the implementation of the Subject2 mechanism. The integration of the ethical dimension allows the proposed model to be viewed as an element of Environment, Social and Governance (ESG) investing, contributing to the stabilization of household living standards (IFRS Foundation, 2023).

To verify the model`s resilience under conditions of high market volatility, scenario analysis and stress testing are included in the methodology. The author models fleet behavior within three scenarios: optimistic (reduction in interest rates and growth in sharing demand), baseline (maintenance of current trends) and critical. The latter simulates a scenario of a sharp decline in profitability on P2P platforms (for instance, due to regulatory restrictions or economic downturn) concurrent with a decrease in secondary market liquidity for vehicles. The application of simulations facilitates the determination of the investor`s survival boundary and the calculation of the required volume of reserve capital necessary for the uninterrupted servicing of credit obligations to primary banks, even during periods of operational downtime.

5. Designing the Financial and Operational Framework

The central element of the proposed research is the integration of the Subject2 financial mechanism into the asset management structure within the automotive lending market. In contrast to a conventional sale, the Subject2 methodology entails the transfer of title and management rights of a vehicle to a new owner (an investor or fleet operator) while the original credit agreement remains in the primary borrower`s name. Under this framework, the owner, being in a pre-default state, is relieved of the burden of monthly installments while preserving a favorable credit history (Federal Reserve Bank of New York, 2024). The investor, conversely, acquires an asset with a grandfathered low interest rate from previous years, thereby significantly reducing the cost of market entry. For the lending institution, this model mitigates the risk of loan

classification as non-performing, ensuring a seamless flow of payments without the necessity of initiating deleterious repossession procedures and subsequent liquidation of the vehicle at auction with a discount. This constitutes a remarkably advantageous solution that ensures stability, precision, predictability and fiscal tranquility for all process participants.

The financial efficacy of the model is predicated upon a rigorous analysis of Return on Investment (ROI) metrics and cash-flow forecasting. For the borrower, ROI is manifested through loss prevention (Figure 1).

The preservation of the credit score facilitates the avoidance of surcharged rates on future borrowings, yielding substantial long-term savings in the tens of thousands of dollars. For the fleet operator, profitability is derived from the spread between the gross revenue generated via P2P rental deployment and the servicing costs of the legacy debt. When scaling the model to a fleet volume of 100 to 1000 units, an operating leverage effect is engendered. Predictive analytics indicate that a diversified vehicle portfolio allows for the neutralization of downtime associated with individual units. The aggregate cash flow of such a fleet, assuming an average utilization rate of 60-70% on platforms like Turo, ensures the servicing of credit obligations and the establishment of a reserve fund for maintenance and insurance (Figure 2).

The operational processes for implementing the model necessitate the development of a robust infrastructure for asset selection and management. During the selection phase, vehicles are filtered based on rental liquidity criteria and loan health (Loan-to-Value ratio – LTV). The optimal strategy involves collaboration with experienced Turo "Power hosts", who possess established logistics for cleaning, storage and vehicle turnover. Regional customer aggregation facilitates the creation of local hubs, thereby reducing vehicle relocation expenditures. A pivotal operational component is the automated payment monitoring system, which ensures that rental income is prioritized toward the servicing of the target automotive loan, precluding the risk of capital misappropriation by the new manager.

The legal foundation and risk management of the model are constructed upon strict adherence to U.S. federal and state statutes. The primary instrument for

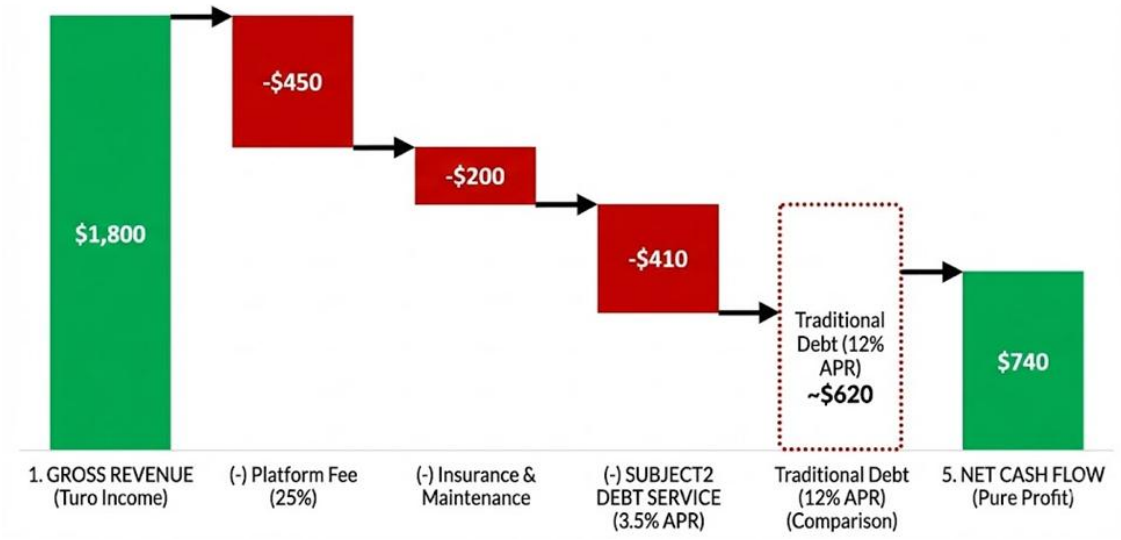

Figure 1. Cash-flow waterfall (example Toyota Camry)

Metric	Traditional Financing	Subject2 Model
Initial Capital Investment	$6,000 (20% Down)	$1,500 (Admin/Equity)
Annual Percentage Rate (APR)	11.0% (Market)	3.5% (Legacy)
Monthly Debt Service	$486	$410
Annual Net Profit	$7,968	$8,880
Cash-on-Cash ROI	132.8%	592.0%

Figure 2. Comparative ROI matrix Subject2 vs traditional financing

stakeholder protection is a multi-layered contractual system, including a management rights transfer agreement, a power of attorney for representation before the creditor and a service contract for executing payments through third-party servicers. Particular emphasis is placed on risk mitigation regarding "Due-on-Sale" clauses. The legal strategy relies on the establishment of trust structures or long-term lease-to-own agreements, which have established protective precedents in several states, such as Texas or Florida (White et al. 2020). Comprehensive insurance, including Gap coverage and specialized policies for commercial use of private vehicles, completes the model`s protective perimeter, rendering it transparent and resilient for all market participants (Figure 3).

A distinguishing feature of the proposed model is the elimination of direct settlements between the investor and the primary borrower, which has traditionally been considered a bottleneck in Subject2 transactions. The author integrates licensed third-party servicers into the operational chain. These institutions serve as fiduciary intermediaries. Under this arrangement, the investor remits payments to the servicing company, which subsequently allocates funds among the lending bank, the insurer and tax authorities. For the bank, the presence of a professional intermediary serves as collateral evidence of proper asset management, significantly reducing the likelihood of invoking "Due-on-Sale" acceleration clauses.

A unique advantage of the Subject2 model, as opposed to restructuring or bankruptcy programs, is the effect of passive credit rehabilitation for the original borrower. Within the author`s model, the borrower remains the nominal debt holder. However, the actual installments are executed via operational profits from P2P rentals. Consequently, the borrower`s credit history reflects timely payments on the legacy loan, progressively enhancing their FICO score. To scale the model to a fleet of 1000+ units, the implementation of a telemetric control and digital monitoring system is proposed. Each vehicle within the Subject2 fleet is equipped with a telematics module integrated into a financial management dashboard. This permits the real-time reconciliation of mileage, technical wear and profitability for each individual unit. Telematics data formulate a digital passport of the asset, which can be provided to the primary lender as evidence that the collateral (the vehicle) is maintained in proper condition and its market value remains above critical levels (IEEE Intelligent Transportation Systems, 2024). Such transparency transforms the high-risk Subject2 transaction into a high-tech and controlled investment product (Figure 4).

6. Economic and Market Impact Assessment

The transition from the classical "default-repossession" model to a strategy of managed asset transfer via "Subject-to" transactions is capable of exerting a profound stabilizing influence on macroeconomic indicators. At a systemic level, the large-scale implementation of this model serves as a safety valve for the financial sector. Modeling demonstrates that substituting repossession procedures with Subject-to transactions facilitates a 15–25% reduction in actual auto loan charge-offs on a regional scale. This is achieved by eliminating the occurrence of default itself. The asset remains performing, payments continue regularly and the financial system avoids the shock loads associated with the mass influx of repossessed vehicles into auctions, which traditionally depresses secondary market prices.

One of the most salient effects for the real economic sector will be the rapid expansion of the available vehicle fleet for peer-to-peer rentals. Under conditions, where new vehicle production remains costly and the cost of borrowing is high, the integration of pre-default assets into platforms such as Turo or Getaround creates a new channel for inventory supply. According to the author`s estimation, the liberation

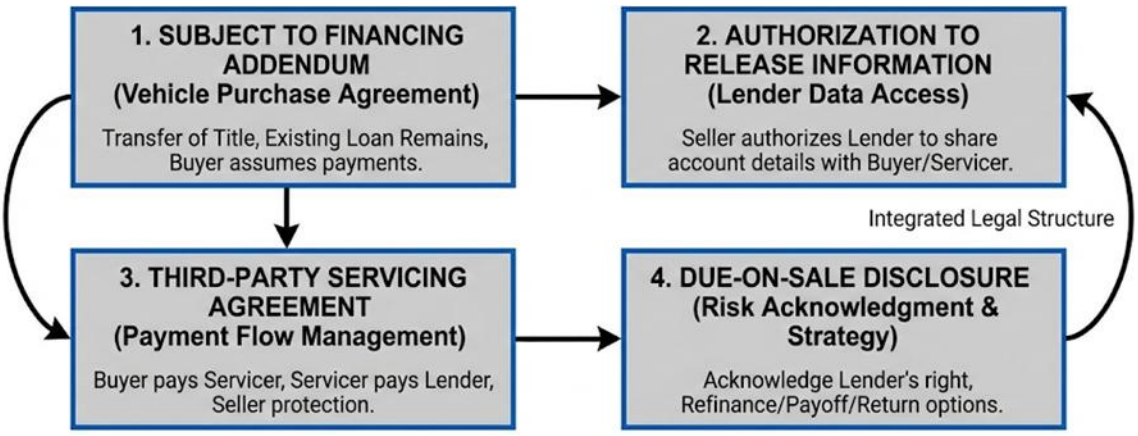

Figure 3. Subject2 transaction documentation and legal safeguards

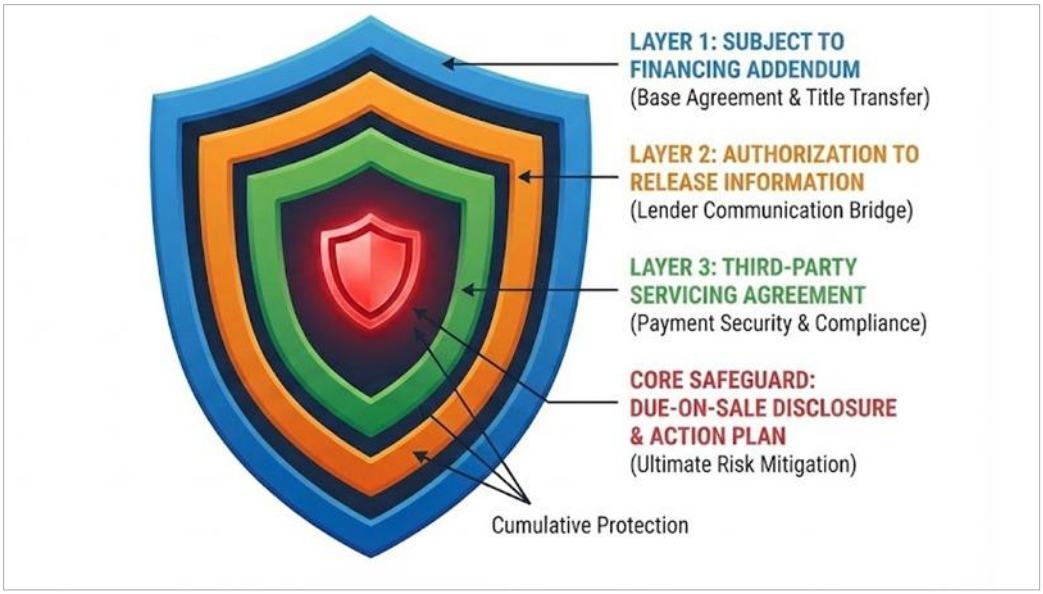

Figure 4. The layered defense shield of Subject2

of even 5% of vehicles at risk of repossession is capable of increasing supply in the P2P rental segment by 10–12%.

From the perspective of creditors` interests, the Subject-to model represents a mechanism for yield recovery and protection. In a classical framework, a bank incurs substantial losses due to the variance between the outstanding debt and the auction liquidation price, not to mention legal expenditures. Cash flow modeling confirms that the Net Present Value (NPV) for a bank of a loan transitioned to "Subject-to" servicing is 35-45% higher than that realized through repossession procedures. Credit institutions gain the opportunity to purge their balance sheets of "toxic" indicators without sacrificing interest income, ultimately enhancing the resilience of the banking sector in the face of economic cycles.

Additional economic benefits are of a long-term and cumulative nature, primarily through the preservation of human capital. Preventing defaults enables millions of borrowers to maintain their credit histories (FICO scoring), which is critically important for their ongoing participation in the nation`s economic life. A citizen with a preserved rating remains an active consumer capable of securing a mortgage or investing, whereas the stigma of default excludes them from the economy for 7–10 years. Furthermore, the standardization of "Subject-to" transactions enhances the aggregate liquidity of the automotive loan market. This establishes a new category of liquid asset management rights, which in the future could serve as the basis for issuing innovative financial instruments and attracting institutional capital into the sharing economy.

According to data from Manheim and Cox Automotive, the average creditor loss per repossessed vehicle (after deducting logistics, storage and auction discount expenses) in 2024–2025 ranges from $8000 to $12000. With the implementation of the "Subject-to" model, these losses are effectively eliminated, as the loan transitions to the performing category rather than being frozen. Scaled to the 1.5 million annual repossessions in the U.S., the potential economic impact (capital preserved by banks) could reach $15 billion per annum. Research indicates that a 200–250 point decline in credit scores due to default increases the average cost of borrowing for a household by $45000–$60000 over the subsequent 10 years (through surcharged rates on mortgages, insurance and credit cards). By preventing default, the "Subject-to" model effectively preserves this disposable income within the household, stimulating domestic consumption and reducing the burden on state social programs. According to the author`s calculation of the variance in operating profitability for a P2P host, at current market rates for new auto loans of 11–13% APR, the operator`s net margin on the Turo platform is approximately 4–7%. On a macroeconomic scale, transitioning even a fraction of at-risk loans to the Subject2 category could preserve up to $15 billion in bank capital annually. This prevents a "credit tsunami" and ensures that the automotive sector does not provoke a chain reaction in the financial sector comparable to the 2008 subprime crisis.

Conversely, utilizing the "Subject-to" model with the preservation of historical 2021 rates of 3–4% APR increases the net margin to 15–18%. Such a 10% spread is a critical factor, transforming what is under current conditions a loss-making small business into a high-yield investment model.

7. Implementation Strategies and Scalability

The practical implementation of the Subject2 model within the automotive lending sphere necessitates the establishment of a multi-tiered technological and operational platform capable of interconnecting disparate market participants. The initial phase of realization entails the construction of a digital aggregator designed to consolidate data regarding at-risk borrowers and investors prepared to assume asset management responsibilities. This aggregator must function as a specialized marketplace, where the prerequisite for vehicle entry is a transparent maintenance history and the legal integrity of the credit. The application of machine learning algorithms will enable the system to autonomously correlate vehicle specifications (make, year, mileage) with current demand in specific l ocal P2P rental markets, thereby identifying the most profitable points of entry.

A main factor in localized operational resilience is the formation of strategic partnerships with experienced Turo "Power hosts". Rather than developing an in-house service infrastructure from the ground up, the aggregator delegates fleet management functions to professionals possessing established logistics – including secure parking facilities, contactless key exchange systems and partner service centers. In this synergy, the aggregator assumes responsibility for the legal and financial engineering of the transaction, while the local host ensures the maximum utilization rate of the vehicle. This synergy facilitates the rapid scaling of the fleet without capital expenditures on physical infrastructure, transforming distressed vehicles into high-yield rental assets.

For model verification, the initiation of a pilot program is proposed, starting in the state of North Carolina. The selection of this region is predicated upon a combination of a robust used vehicle market, high population density in hubs such as Raleigh and Charlotte and relatively flexible legislation regarding title rights and trust agreements. Within the pilot framework, it is intended to refine interaction mechanisms with local insurance agents concerning Gap insurance and to test the performance of third-party servicers. A successful launch at the state level will enable the collection of empirical data regarding actual profitability and the frequency of legal conflicts, which is essential for fine-tuning the model prior to full-scale national deployment.

National-level scaling presupposes deep integration with major financial partners, including banks and credit unions. At this stage, the Subject2 model must be presented as a legitimate distressed asset management instrument ("Restructuring-as-a-Service"). In the long term, banks may integrate the Subject2 proposal directly into their delinquency notifications, offering the borrower the option to transfer the vehicle into the aggregator`s fiduciary management as an alternative to repossession. This integration will facilitate the institutionalization of the market, mitigate systemic default risks nationwide, and create a new asset class attractive to institutional investors and insurance funds (Figure 5).

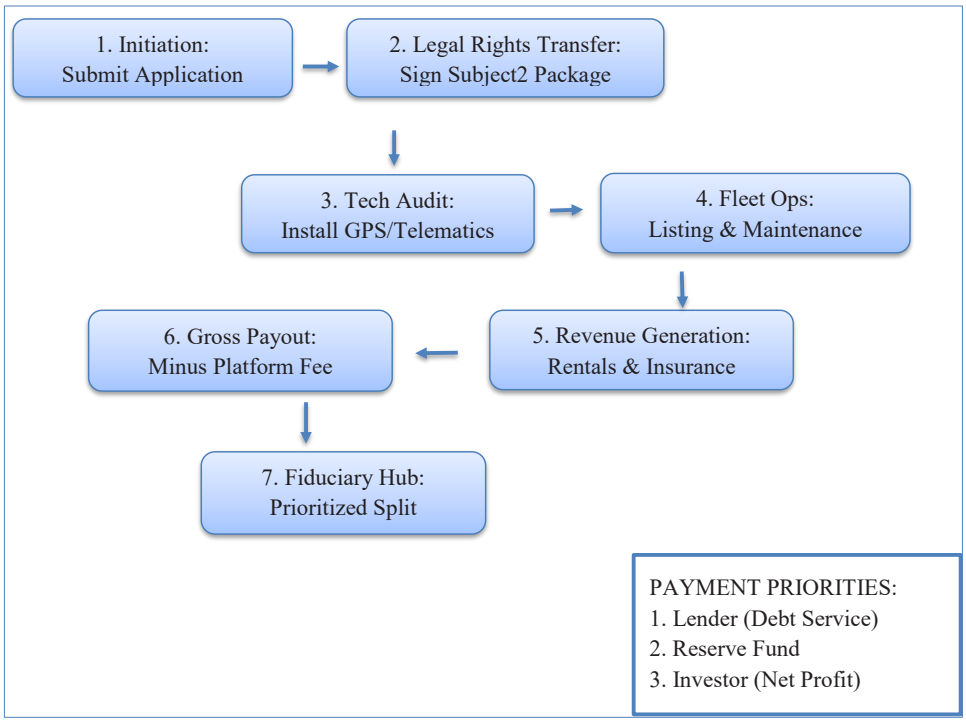

Figure 5. Operating process: cross-functional diagram of Subject2

A distinctive technological advantage of the model is the employment of programmable payments based on smart contracts. Within this architecture, the revenue generated by the vehicle on the P2P platform is automatically distributed by program code. Seventy percent is directed toward debt amortization to the bank, 20% toward the host`s operational expenses and 10% into a maintenance reserve fund. This real-time payment splitting system eliminates the human factor and ensures the priority of payments to the creditor bank, transforming the auto loan into a self-executing financial instrument. To ensure high scaling dynamics, the implementation of an AI-driven predictive analysis system is proposed. Utilizing neural networks for Big Data analysis, ranging from regional fuel price fluctuations to consumer spending dynamics, the system is capable of identifying at-risk borrowers prior to the first delinquency. This enables the Subject2 operator to approach with an asset transfer proposal during the "soft crisis" phase, before legal procedures have commenced, thereby significantly simplifying the negotiation process and reducing transaction costs.

The final stage of scaling involves the tokenization of fleet management rights. A pool consisting of thousands of vehicles within the Subject2 model can be transformed into digital financial assets (asset-backed tokens). This allows institutional investors to acquire stakes in the aggregate profitability of the fleet, ensuring an influx of liquidity for the acquisition of new volumes of distressed loans.

Thus, the model transcends local business boundaries and becomes a new class of liquid securities at the intersection of decentralized finance (DeFi) and the real economic sector, contributing to global automotive market stabilization.

8. Conclusions

The conducted research confirms that the implementation of a large-scale "Subject-to" transaction model in the automotive lending segment is economically expedient and constitutes an effective instrument for default minimization. The "Subject-to" model offers an alternative pathway for the soft transfer of assets, transforming problematic debt into a functional instrument. The economic efficiency of this approach is manifested in the preservation of bank capital, the prevention of the mass devaluation of citizens` credit ratings, and the creation of conditions for the uninterrupted servicing of financial obligations even during periods of market shocks.

The development of this mechanism exerts a powerful positive influence on the short-term peer-to-peer (P2P) rental market. By addressing the primary challenge of platforms such as Turo and Getaround, namely the deficit of a high-quality and accessible vehicle fleet, the "Subject-to" model enables operators to scale businesses utilizing interest rate arbitrage. This stimulates the growth of entrepreneurial activity in the sharing economy, generates new employment opportunities in service sectors and enhances mobility accessibility for the population. In this context, the vehicle ceases to be a passive debt encumbrance and is transformed into an asset generating high value added.

For the successful large-scale implementation of the model, the author has formulated three key legal and operational recommendations.

Institutionalization of intermediation – a transition from private arrangements to the use of licensed third-party servicers is necessary to ensure payment transparency.

Standardization of the legal framework – the development of model contracts that account for the specificities of individual state legislation and protect the interests of primary creditors.

Digital integration – the implementation of telemetric systems and smart contracts for the automated monitoring of collateral status and revenue distribution.

The prospects for the model`s application extend far beyond breakthrough anti-crisis initiatives. The author is at the vanguard of a new and unique business segment, "Restructuring-as-a-Service". The integration of FinTech solutions and the traditional banking sector will create a more resilient and flexible financial system. In the medium term, this will lead to increased liquidity in the automotive credit market and the formation of a new class of investment assets, serving as a significant factor in the stabilization of the U.S. economy and a driver of innovation in the transportation industry.

In the context of the United States, the implementation of this model acquires the status of a matter of national economic security and social stability. Given that the aggregate automotive loan debt in the U.S. has exceeded the $1.6 trillion mark and personal transport is an indispensable condition for labor market access for the majority of citizens, mass defaults are capable of provoking a chain reaction in the financial sector comparable to the 2008 crisis. For the American consumer, the credit rating (FICO score) serves as a financial passport, determining access to housing rentals, insurance and even employment. The "Subject-to" model facilitates the mitigation of systemic subprime crisis risks in the automotive sector, preserving the purchasing power of households and protecting them from debt degradation.

Consequently, the proposed solution not only supports the financial stability of banks, but also reinforces the U.S. position as a global leader in financial innovations (FinTech) and the sharing economy, adapting traditional institutions to the challenges

of the digital era. Schematic contract templates and a framework illustrating the protective attributes of the proposed model are also presented.

The author proposes a shift from passive debt management to a proactive, tech-driven interdisciplinary stabilization model. By reinforcing the U.S. position as a global leader in FinTech innovation, this research provides a template for protecting national social stability through the synergy of the sharing economy and traditional banking resilience.

References:

Federal Reserve Bank of New York. (2024). Quarterly Report on Household Debt and Credit (Q3 2024). New York, NY: Center for Microeconomic Data. https://www.newyorkfed.org/medialibrary/Interactives/householdcredit/data/pdf/HHDC_2024Q3.pdf?sc_lang=en

Experian Automotive. (2024). State of the Automotive Finance Market: Q2 2024 Analysis. Schaumburg, Experian. https://www.experian.com/automotive/auto-finance-market

Hampshire, Robert & Gaites, Craig. (2011). Peer-to-Peer Carsharing: Market Analysis and Potential Growth. *Transportation Research Record: Journal of the Transportation Research Board*. 2217: 119–126. https://doi.org/10.3141/2217-15

Einav, L., Farronato, C., & Levin, J. D. (2016). Peer-to-Peer Markets. *Annual Review of Economics, Stanford University* 14: 87–113. https://doi.org/10.1146/annurev-economics-080315-015334

Consumer Financial Protection Bureau. (2023). Report on Subprime Auto Loan Performance and Delinquency Trends. Washington, DC: CFPB. https://www.consumerfinance.gov/data-research/research-reports/

Adams, Robert & Bord, Vitaly & Sannoh, Haja. (2024). Rising Auto Loan Delinquencies and High Monthly Payments. FEDS Notes. None-None. https://doi.org/10.17016/2380-7172.3623

Cox Automotive. (2024). 2024 Mid-Year Review: Repossession Volumes and Auction Loss Severity. Atlanta, GA: Cox Automotive. https://www.coxautoinc.com/market-insights/

Mann, R. A., & Roberts, B. R. (2020). Consumer Financial Services Law. Foundation Press.

Keys, B. J., Mukherjee, T., Seru, A., & Vig, V. (2019). Financial Regulation and Risky Lending: Evidence from the Consumer Credit Market. *Journal of Finance*, 74 (1): 51–93. https://doi.org/10.1111/jofi.12719

Levitin, A. J. (2023). Consumer Finance Law: Markets and Regulation. Wolters Kluwer.

Statistica. (2024). P2P carsharing market size and share analysis – trends, drivers, competitive landscape and forecasts 2024-2030. P&S Intelligence. https://www.psmarketresearch.com/market-analysis/p2p-carsharing-market

Möhlmann, Mareike & Geissinger, Andrea. (2018). Trust in the Sharing Economy: Platform-Mediated Peer Trust.

Furfine, C. (2010). How Do Securitization Markets Affect Credit Allocation? Evidence from the Auto Loan Market. *Journal of Financial Services Research*, 37(1): 1–27. https://doi.org/10.1007/s10693-010-0077-1

National Consumer Law Center. (2023). Repossessions. Consumer Credit and Sales Legal Practice Series. NCLC.

Pereira Coelho, Diogo & Figueiredo, Alberto José & Quelhas Poças, Manuel. (2024). Fintech Q1 2024 Review – A report on key regulatory and non-regulatory developments. https://doi.org/10.13140/RG.2.2.17849.58725

Gössling, S., & Cohen, S. (2014). Why sustainable transport policies will fail: EU climate policy in the light of transport taboos. *Journal of Transport Geography*, 39: 197–207. https://doi.org/10.1016/j.jtrangeo.2014.07.003

Board of Governors of the Federal Reserve System. (2024). Consumer Credit – G.19 Release.

TransUnion. (2024). Q2 2024 Credit Industry Insights Report. Chicago, TransUnion. https://www.transunion.com/industry-insights

Assunção, J., Benmelech, E., & Silva, F. (2014). Repossession and Consumer Credit. *Journal of Financial Economics*, 114 (2): 273–297. https://doi.org/10.1016/j.jfineco.2014.06.006

Bureau of Labor Statistics. (2024). Consumer Expenditure Survey: Transportation Expenditures. U.S. Department of Labor. https://www.bls.gov/cex/

Bankrate. (2026). Average Auto Loan Interest Rates by Credit Score (September 2024). https://www.bankrate.com/loans/auto-loans/average-auto-loan-interest-rates/

Damodaran, A. (2022). Investment Valuation: Tools and Techniques for Determining the Value of Any Asset. Wiley.

Glasserman, P. (2003). Monte Carlo Methods in Financial Engineering. Springer. https://link.springer.com/book/10.1007/978-0-387-21617-1

National Consumer Law Center. (2023). Repossessions: Legal Rights and Creative Solutions for Distressed Borrowers. https://www.nclc.org/

IFRS Foundation. (2023). IFRS S1: General Requirements for Disclosure of Sustainability-related Financial Information. https://www.ifrs.org/issued-standards/ifrs-sustainability-standards/

Federal Reserve Bank of New York. (2024). Quarterly Report on Household Debt and Credit. https://www.federalreserve.gov/releases/g19/

White, J. J., Summers, R. S., & Hillman, R. A. (2020). Uniform Commercial Code. West Academic.

IEEE Intelligent Transportation Systems. (2024). Telematics and Financial Security in Shared Mobility Ecosystems. UNECE.

Received on: 14th of April, 2026
Accepted on: 30th of May, 2026
Published on: 26th of June, 2026