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Anticipated Changes to Commercial Law Should Make It Easier to Do Deals Digitally

By Edward K. Gross and Dominic A. Liberatore

Future changes to our transactional practices, including if driven by technology or market practices, must fit within a legal framework, especially commercial laws. Paramount is the need for commercial laws that govern the rights, interests, and priorities of financing providers and investors. Forthcoming amendments to the Uniform Commercial Code seek to accommodate these concerns.

Higher Inflation, Rising Interest Rates Mean New Challenges and Opportunities for the Equipment Finance Industry

By Robert Wescott, PhD, Desmond Dahlberg, and Julie Coen

With the recent spike in inflation, some key trends should be of interest to equipment finance professionals. Expect the Federal Reserve to continue to raise rates, and expect some end-user markets to see reductions in demand. However, we expect to see industry firms continue their streak of innovation even as they contend with structural changes during these uncertain times.

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By Edward K. Gross and Dominic A. Liberatore

I. AS THE INDUSTRY CATCHES UP TO EMERGING TECHNOLOGY, SO DOES COMMERCIAL LAW

"What new technology does is create new opportunities to do a job that customers want done."
– Tim O'Reilly[1]

As discussed in this journal and numerous other finance industry publications, fundamental changes to how we do business are likely to accelerate at a dizzying pace over the next few years. These changes are being driven by emerged and emerging technologies and are intended to accommodate the related business practices of customers and other market participants.

However, any changes to our transactional practices must still fit within a legal framework, especially commercial laws. Financing providers and investors must be confident that they can rely on laws that clearly establish their rights and remedies, especially the priority of their interests and the certainty of the customer's payment obligations. As discussed in detail below, the "model" Uniform Commercial Code (UCC) serves as the basis for state laws that govern most commercial transactions originated in the United States.[2]

Recognizing the need to catch up to these emerging technologies and trends, a special committee of commercial lawyers has drafted amendments to the model UCC. These Amendments are intended to update the model UCC to reflect emerged and emerging technolo-

An executive summary for this article appears on pages 16 through 18.

The essential commercial laws applied by courts to determine the rights of parties to a commercial dispute include the common law, statutory law, or creditor's rights laws of a particular state.

gies including blockchain, virtual currencies, nonfungible tokens (NFTs) and other digital assets, and trends such as "servitization" (as defined on page 9).

The amendments (the "Amendments") are in the process of being completed after having been approved and recommended by the Uniform Law Commission (ULC) for enactment in all of the states. After the final review by the ULC's Committee on Style, the amendments will be ready for introduction to and, it is hoped, timely adoption by the states. The adoption process has already begun in some states and will commence in others.

After the effective date, which may be as soon as January 1, 2025,[3] the Amendments could have a transitional impact on equipment financing and leasing, capital markets transactions including securitizations and syndications, and other related matters. A similar transitional event occurred when revisions to the UCC were made in 1998 and 2010, relating to electronic signatures, records, and chattel paper. These digital transaction methodologies have become much more commonplace during the pandemic.

Informed industry participants will be able to achieve market advantages if they can successfully leverage these emerging technologies and practices and the contemplated changes to the commercial laws—and will likely encounter competitive disadvantages if they do not. This article summarizes the purposes and transactional implications of these Amendments.

II. THE ROLE OF STATE LAW AND THE UCC

The law governing commercial transactions in the United States is largely state law. The essential commercial laws applied by courts to determine the rights of parties to a commercial dispute include the common law, statutory law or creditor's rights laws of a particular state. State procedural rules must be followed when enforcing claims or judgments in the courts of that state, and state statutory laws may apply when appropriate to protect creditors from fraud by debtors.

The common law associated with a particular state regarding issues governed by the laws of that state is derived from published court decisions that are considered as authority for deciding subsequent cases involving identical or similar facts, or similar legal issues. This type of common law is often referred to as *precedent.* Although bankruptcy laws are federal, bankruptcy courts often rely on state laws to determine the respective rights and interests of the debtor, creditors, and other participants in bankruptcy proceedings.

However, what might be precedent with respect to an issue under the law of a particular state might be very different from what might

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In 2019, the Uniform Law Commission and the American Law Institute appointed a joint committee to consider whether changes to the UCC were advisable to accommodate emerging technologies such as artificial intelligence, distributed ledger technology, and virtual currency.

be precedent with respect to that issue under the law of another state. In a transactional context, that nonuniformity of legal principles from state to state could lead to unintended and undesirable results, especially with respect to commercial transactions where predictability of legal disputes is essential.

The Model UCC

Recognizing the disruptive nature of the nonuniformity of common laws among the states, the commercial bar developed the UCC in the 1960s as a model "uniform" commercial code. Whatever version of the UCC that is enacted by the legislature of a state serves as the body of statutory commercial laws of that state governing the matters covered in its various articles. Since its widespread enactment more than 50 years ago, and ultimately by all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam, the commercial bar has sustained the UCC through periodic revisions to address changes in commercial practices.[4]

The applicable provisions of the UCC govern most commercial disputes among parties to sales or leases of goods (e.g., equipment or inventory), payment instruments, secured financings, and many other equipment finance-related transactions. The UCC is a primary driver when structuring, documenting, closing, managing, syndicating, securitizing, and enforcing equipment finance transactions.

Parties often stipulate in the pertinent documents as to which state's law is intended to govern the rights, obligations, and interests of the parties to the contemplated transactions. Regarding commercial matters, the stipulated state law would include that state's version of the UCC. For example, if parties stipulate that "New York law" will govern the sale of an aircraft, the lease of a tractor or a loan financing of high-tech equipment, the applicable commercial laws could include, respectively, articles 2, 2A, and 9 of the UCC, as enacted by the New York legislature and interpreted by courts applying those laws.[5]

III. THE UCC AMENDMENTS

Background

In 2019, the ULC and the American Law Institute (ALI), the sponsors of the UCC (the sponsors), appointed a joint committee to consider whether changes to the UCC were advisable to accommodate emerging technologies, such as artificial intelligence, distributed ledger technology, and virtual currency. The joint committee ultimately received permission from the sponsors to act as a drafting committee (the committee) for amendments to the UCC dealing, predominantly, with aligning the UCC with emerging technologies.[6]

When the draft committee was first formed, invitations were sent to

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The amendments and the associated official comments cover, among other things, digital assets, electronic money, chattel paper, bundled transactions, and other tech and nontech related commercial matters.

large groups of potential stakeholders including trade organizations, financial institutions, technology companies, government agencies, and others to be "observers," including observers from the equipment finance industry.[7]

The Amendments

Since the commencement of this project, the committee has generated many drafts of the proposed amendments, related "official comments" and the committee reporter's drafting notes (reporter's notes), the most recent of which was the "Draft for Approval" submitted to the ULC on June 27, 2022 (the draft).[8] The draft was approved on July 13, 2022, in substantially the form as submitted.

The following is a nonexhaustive summary of the amendments, focused primarily on the amendments that might be of greatest interest to the equipment finance industry.

Generally

The amendments and the associated official comments cover, among other things, digital assets, electronic money, chattel paper, bundled transactions, and other tech and nontech related commercial matters. Among the most significant Amendments is the creation of a new Article 12 covering the commercial law implications of digital assets.

However, as explained below, there are also many other proposed Amendments to the existing articles of the UCC, including Article 2A (leases) and Article 9 (secured transactions), which, if made, are likely to have an immediate commercial impact. Our discussion starts with those Amendments that are likely to have an immediate impact on equipment finance transactions, and is followed by a summary of the new Article 12 involving digital asset transactions.

Chattel Paper

The amendments include many changes to Article 9 of the UCC, including a revised definition of *chattel paper* and updated provisions applicable to perfection of security interests in chattel paper. Among other things, clarity regarding what constitutes chattel paper and how to achieve priority when purchasing or securing interests in chattel paper is essential to capital markets transactions involving equipment financings.

That clarity is essential because, whether structured as a secured loan or a "true sale," a transaction involving a conveyance of an interest in chattel paper is treated as a "security interest," and the collateral assignee or purchaser is a "secured party" under Article 9.[9] So, irrespective of the structure, a lender or purchaser must "perfect" the interest granted or conveyed to it in accordance with the applicable provisions of Article 9 in order to achieve priority over third-party claims (including by a bankruptcy trustee) against the related chattel paper.

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This new rule would cover chattel paper related to leases or secured financings of equipment that are evidenced by a mix of electronic and tangible records, records in one medium that replaced records in another medium.

In a transactional context, as a closing condition to an assignment, securitization or other capital markets transaction involving equipment financings or leases, sellers and borrowers are often required to establish that the interest being granted or conveyed has been properly perfected and has first or sole priority.

The New Definition. As amended, the definition of *chattel paper* (see Section 9-102(11)) will no longer refer to the tangible or electronic record (i.e., the paper or electronic version of a document) evidencing the right to payment with respect to a secured financing or lease of equipment, inventory, or other property constituting "goods" under the UCC.[10] Instead, the term chattel paper will refer to the secured party's or lessor's right to "payment of a monetary obligation that is secured by a security interest in specific goods or owed under a lease of specific goods, if the right to payment and interest in the goods are evidenced by a record."[11]

The definition has also been revised to allow for chattel paper treatment of the payment rights associated with "hybrid leases," if the predominant purpose was to give the obligor (lessee) the right to possession and use of the equipment or other leased goods.[12] The definition of *hybrid lease* (sometimes referred to as a *bundled transaction*), and the extent to which Article 2A may be applied with respect to a hybrid lease, is explained later in this article.

Perfection. The amendments include a new Section 9-314A, which replaces the coverage in existing Section 9-314 as to the method of perfection by a purchaser or other secured party of an interest granted or conveyed to it in chattel paper. Although perfection may still be achieved by filing a financing statement, a purchaser or other secured party may also perfect its security interest by taking and retaining possession of each tangible, and "control" (the digital equivalent to taking possession) of each electronic, "authoritative" copy of the records evidencing the chattel paper.[13]

The general purpose of perfecting a security interest (including if purchasing chattel paper) under Article 9 remains the same, whether filing a financing statement or taking possession or obtaining control, enabling the public to determine that the chattel paper in question may be encumbered with a security interest.

New Section 9-314A is more flexible than the current related coverage under Article 9 because it provides a single rule under which a security interest in chattel paper can be perfected by taking possession of the authoritative tangible copies, if any, and obtaining control of the electronic authoritative copies, if any.[14] This new rule would cover leases or secured financings of equipment with respect to which some records evidencing the related chattel paper are electronic

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The amendments also provide for perfection by possession or control by a third party on the purchaser's behalf.

and some are tangible, or where a record in one medium is replaced by a record in another medium[15] (i.e., from electronic to paper, or vice versa).

As noted above, in order to perfect a security interest in chattel paper other than by filing, new Section 9-314A(a) requires a secured party to obtain control of all authoritative electronic copies and take possession of all tangible authoritative copies of a record evidencing chattel paper. The reference to tangible authoritative copies is similar to the requirement regarding perfection by control of the authoritative copy of electronic chattel paper under existing Section 9-105(b). However, neither new Section 9-314A(a) nor existing or amended Section 9-105(b) defines the term *authoritative.*

A purchaser asserting that it has possession of all authoritative tangible copies, and control of all authoritative electronic copies, of the records evidencing chattel paper can produce the tangible copies in its possession and prove control of the electronic copies and provide evidence that these are authoritative copies.[16] However, the purchaser need not prove that no other tangible authoritative copies exist.[17] Purchaser's possession of the tangible authoritative copies gives it the power to prevent others from taking possession or control of the copies and to transfer possession and control of the copies.[18]

The Amendments also provide for perfection by possession or control by a third party on the purchaser's behalf. Although Section 9-313(a) no longer covers possession of tangible chattel paper, new Section 9-314A(c) provides that a secured party may still rely upon subsection (c) of 9-313 to perfect its security interest in chattel paper if a third party acknowledges that it is holding possession on the secured party's behalf of the authoritative tangible copy of a record evidencing chattel paper. New Section 9-105(g) provides for a purchaser to obtain control of an electronic copy of an authoritative record by virtue of an acknowledgment by another person in control of the electronic copy.

Currently, when originating, transferring, and vaulting electronic records that are intended to be "electronic chattel paper," originators and funders that participate in capital markets transactions rely on technology systems that are designed to conform to the requirements of Section 9-105 so that a grant or purchase of an interest in that electronic chattel paper may be perfected by "control."

Among the practical considerations when relying on Section 9-105 to perfect by control is whether the related electronic record constitutes "electronic chattel paper." It is important to remember that an electronically signed lease or financing does not constitute electronic chattel paper unless it also

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Even as amended, financing providers may still establish control by complying with subsections (a) or (b) of Section 9-105, which are substantially unchanged.

meets the UCC's current definition of electronic chattel paper[19] and, in the hands of the purchaser or collateral assignee, satisfies the control requirement of Section 9-105, including by storing those electronic records in a third-party electronic vault (often referred to as an *e-vault*).

Further, control will not be achievable under Section 9-105 unless both the originator and purchaser or collateral assignee of the financing or lease transaction have compatible approaches and system technologies regarding the creation, execution, storage, transfer, and vaulting of the related electronic chattel paper.

Even as amended, financing providers may still establish control by complying with subsections (a) or (b) of Section 9-105, which are substantially unchanged. Most chattel paper purchasers or other secured parties rely on the safe harbor under existing Section 9-105(b) to establish perfection by control. However, Section 9-105(b) contemplates a "single authoritative copy" of an electronic record, which would not be the case with a record maintained on a blockchain or other distributed ledger.

New subsection 9-105(c) is intended to allow a purchaser to obtain control when there are multiple authoritative copies of a record. However, similar to subsection (b), a purchaser must prove that it has obtained control of an electronic copy of a record evidencing chattel paper by being able to identify each electronic copy as authoritative or nonauthoritative, and identifying itself as the assignee of each authoritative copy.

Also similar to subsection (b), the purchaser must have the exclusive power both to prevent others from adding or changing an identified assignee and to transfer control of the authoritative copies of that electronic record. The meaning of *exclusive* is covered by new subsections 9-105(d) and (e), and a presumption of exclusivity is covered in new subsection 9-105(f). The amendments contemplate that control of electronic records evidencing chattel paper under an existing system compliant with existing Section 9-105(b) would also satisfy the requirements for control under the amended version of Section 9-105.[20]

The drafting purpose underlying the revisions to Section 9-105, as explained in the official comments to new Section 9-314A, is as follows:

> To accommodate current practices and future technology, parties are allowed considerable flexibility in determining the method used to establish whether a particular copy is authoritative, as long as third parties are able to reasonably identify the authoritative copies that must be possessed or controlled to achieve perfection.[21]

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Originators and investors must be aware of the related implications of the amendments, including as to how equipment leases and financings are created, executed, transferred, and held, and, if in an electronic medium, the attributes of the systems that they rely upon to do so.

In larger capital markets transactions, perfection by possession or control by the purchaser of the related tangible or electronic records is often required because it could, together with the satisfaction of certain other criteria, afford the purchaser "superpriority" over competing third-party claims.[22]

Consistent with the provisions of new Section 9-314A, a purchaser may achieve superpriority under new Section 9-330 by taking possession of each authoritative tangible copy of the record evidencing the chattel paper. To achieve superpriority under new Section 9-330, the purchaser would still need to satisfy the new value, good faith, ordinary course, and absence of knowledge requirements in subsections (a) or (b), as applicable.

Another related addition to amended Article 9 that is likely to be meaningful to purchasers of chattel paper is new Section 9-317(f), pursuant to which a chattel paper buyer may take free of a security interest if, "without knowledge of the security interest and before it is perfected," the buyer gives value, receives delivery of each authoritative tangible copy of the record evidencing the chattel paper, and obtains control of each authoritative electronic copy under Section 9-105.

Transactional Considerations Regarding the Chattel Paper Amendments. These Amendments will have a significant impact on originating, purchasing, financing, and securitizing equipment leases and financings. Originators and investors must be aware of the related implications of the amendments, including as to how equipment leases and financings are created, executed, transferred, and held, and, if in an electronic medium, the attributes of the systems that they rely upon to do so.

Among other things, participants in capital markets transactions involving records maintained on distributive ledger technology (DLT), like blockchain, will need to be certain that the system technology clearly aligns with the related perfection and priority implications of new subsection (c) of Section 9-105.

Chattel paper originators and purchasers should develop systems and protocols where each tangible or electronic copy is designated as the authoritative or nonauthoritative copy by a stamp, legend, watermark, or other visible marking. Also, whether in tangible or electronic format, existing transaction template documents should be drafted or amended to reflect the new definition of chattel paper and the amendments relating to perfection by control of the authoritative copy of the related tangible and electronic records, including as to how to determine which copies are authoritative and which are not.

Hybrid (Bundled) Transactions

For context, the prefatory note to the Amendments explains that

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Many market integrated transaction documents look more like service agreements, with included equipment and extended payment terms, than they do equipment leases or financings.

among the areas primarily focused on by the committee were "bundled" or "hybrid" transactions "consisting of the sale or lease of goods together with the sale, lease, or licensing of other property and the provisions of services as an integrated transaction."[23] The related Amendments refer to these transactions as either a *hybrid transaction* if the integrated transaction includes a sale of goods or a *hybrid lease* if the integrated transaction includes a lease of goods.

However, there is currently a spectrum of transaction types (known by different names in the market, such as bundled transactions, managed solutions, and managed equipment services) involving goods and nongoods that might be considered bundled transactions for the purposes of these amendments, including "as a service" transactions.

Indeed, while these types of bundled transactions were viewed as outliers just a handful of years ago, they are now very common in the market, and they are expected to become even more prevalent in the near future.[24] The equipment finance industry has referred to this rapidly growing transactional trend as *servitization,* which term is intended to reflect the shift from a product-centric to a service-centric model.

Consistent with that approach, many market integrated transaction documents look more like service agreements, with included equipment and extended payment terms, than they do equipment leases or financings. Examples of these transactions include (a) a tech services contract that includes a lease or sale of laptops and related access to servers and a license of the related software; (b) a copier lease or sales contract coupled with an agreement to provide related supplies, service, maintenance, and extended warranties; (c) an imaging availability agreement providing for a lease or sale of imaging equipment and an agreement to provide related consumables, maintenance, and software update services; and (d) an "energy as a service" agreement (also known as an *EaaS* agreement), which provides financing solutions for energy efficiency projects with little or no upfront capital costs.

The committee's approach to covering the commercial law implications of this emerging trend toward integrated transactions was to expand the scope provisions of Article 2A (§ 2A-102) and Article 2 (§ 2-102) of the UCC in order to clarify when and the extent to which provisions of those articles should be applied either to hybrid leases under Article 2A or to hybrid transactions under Article 2. These new categories of transactions are briefly explained below.

Categories of Transactions

Leases. New subsections (2)(a) and (b) of Section 2A-102 now

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If enacted as currently drafted, amended Section 2A-102 should afford considerable advantages for lessors, financing providers, and investors participating in these types of integrated (bundled) transactions, assuming that the integrated lease is a "finance lease" under Article 2A.

respectively provide that in a hybrid lease:

(a) If the lease-of-goods aspects do not predominate:

> (i) only the provisions of this Article which relate primarily to the lease-of-goods aspects of the transaction apply, and the provisions that relate primarily to the transaction as a whole do not apply;
>
> (ii) Section 2A-209 applies if the lease is a finance lease; and
>
> (iii) Section 2A-407 applies to the promises of a person that is the lessee in a finance lease to the extent the promises are consideration for the right to possession and use of the leased goods.[25]

(b) If the lease-of-goods aspects of a hybrid lease predominate,

> this Article applies to the transaction, but this does not preclude the application in appropriate circumstances of other law to the aspects of the lease which do not relate to the lease of goods.[26]

As discussed below, if Section 2A-407 applies to a lease, the lessee's rent obligation would be statutorily hell or high water.

Related to that Amendment, the term *hybrid lease* has also been added as subsection (1)(h.1) to the definitions in Section 2A-103, and as so defined means:

> a single transaction involving a lease of goods and: (i) the provision of services; (ii) a sale of other goods; or (iii) a sale, lease, or license of property other than goods.[27]

The official comments include, as an example of a hybrid lease, a single agreement between a lessor and customer pursuant to which the lessor, in return for periodic payments from the customer, agrees to lease a copier for a term; and supply the paper, staples, and toner, and provide routine maintenance and repair services, all as needed to keep the copier operating during that period.

Clause (iii) of new subsection 1(h.1) of Section 2A-103 would cover, among other things, a lease of goods together with a license of the related software in a single transaction (e.g., a hybrid lease that includes a lease of imaging, energy savings or communications equipment, together with a license of the related software).

New subsection (2)(a)(iii) of Section 2A-102 should afford considerable advantages for lessors, financing providers, and investors participating in these types of integrated (bundled) transactions, assuming that the integrated lease satisfies the finance lease criteria in Section 2A-103(1)(g). Those criteria

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If one or the other of these new hybrid lease provisions is applicable, the lessee's promise to pay rent with respect to either the entire transaction or (at least) the integrated lease would be statutorily hell or high water.

contemplate that a lessor under a finance lease is not the supplier but is acquiring equipment selected by a lessee, solely for the purpose of leasing it to that lessee.[28]

Having Section 2A-407 apply either to the entire hybrid lease under new subsection (2)(b) of Section 2A-102 or to the promises of the lessee of the type described in new subsection (2)(a)(iii) of Section 2A-102 could be a game changer for originators, financing providers, and investors participating in these transactions. Specifically, if one or the other of these new hybrid lease provisions is applicable, the lessee's promise to pay rent with respect to either the entire transaction or (at least) the integrated lease would be statutorily irrevocable and independent upon the lessee's acceptance of the leased equipment (i.e., hell or high water).

As context, using the above-referenced hybrid copier lease as an example, assuming that the lease of the copier aspects of that integrated transaction predominate, and that the copier lease is a finance lease, the lessee's obligation to pay the entire amount due under the hybrid lease should be hell or high water upon the lessee's acceptance of the copier. Or, if the lease of the copier aspects do not predominate, but the integrated copier lease is a finance lease, the lessee's obligation to pay the rent for the copier will be hell or high water.

Further, the related official comments in the Amendments provide some guidance as to how to structure and document a hybrid lease so as to support the application of these finance lease protections.[29]

Sales. As context, similar Amendments were made to Section 2-102, the scope provision of Article 2. As amended, the scope of Article 2 would include the application of its provisions to the entirety of a "hybrid transaction" under Section 2-102(2)(b) if "the sale-of-goods aspects predominate," but under Section 2-102(2)(a) if "the sale-of-goods aspects do not predominate, only the provisions of this [Article 2] which relate primarily to the sale-of-goods aspects of the transaction apply, and the provisions that relate primarily to the transaction as a whole do not apply."[30]

Related to that Amendment, the term *hybrid transaction* has also been added as new subsection (5) to the definitions in Section 2-106, and as so defined means "a single transaction involving a sale of goods and: (a) the provision of services; (b) a lease of other goods; or (c) a sale, lease, or license of property other than goods."

The official comments of the amended version of Section 2-102 explain, in the context of Article 2, that many ordinary transactions involve both a sale of goods and the provision of services; a lease of other goods; or a sale, lease,

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Because the quantity and cumulative value of hybrid transactions will continue to increase, the clarification of the commercial law implications provided by the draft UCC amendments is certainly welcome.

or license of property other than goods; but the original Article 2 was silent on its applicability to such hybrid transactions. However, ". . . by defining a 'sale' as 'the passing of title [to goods] from the seller to the buyer for a price,' Section 1-206 arguably regarded such transactions as sales."[31]

The official comments also explain the "predominant purpose" and "gravamen" approaches embraced by the revisions to Section 2-102.[32] Per the official comments, "most courts dealing with the issue" have principally applied the predominant purpose test, pursuant to which courts seek to determine "whether the hybrid transaction, at its inception, is predominantly about the goods."[33] New subsection (2)(b) of revised Section 2-102 adopts this predominant purpose approach.[34]

Further per the official comments, when an issue relates solely to the goods aspect of the transaction (e.g., conformity of the goods to the contract), it is appropriate to apply Article 2 to that issue, even if the goods aspect of the transaction does not predominate.[35] The official comments note that this "bifurcation" approach has been adopted by some courts, and is adopted by new subsection (3) of revised Section 2-102.[36] Thus, a two-tiered test is created codifying the "predominant purpose" approach as the initial analysis and the "bifurcation" approach as the secondary step for those transactions where the non-goods aspects predominate.[37]

The official comments to revised Section 2A-102 do not include similar explanations and context regarding the different approaches regarding hybrid leases. Unlike with Article 2, there are very few reported cases that provide guidance as to how to apply the predominant purpose or bifurcation approaches to determine whether Article 2A or some other law (including under a different article of the UCC) should govern an integrated transaction that includes a lease of goods. With that in mind, the committee included extensive official comments regarding certain structural or documentation considerations that might be useful to support the characterization of an integrated transaction, and provide transactional examples of the same.[38]

If enacted as presently provided in the Amendments, these official comments and related examples are likely to be heavily relied upon by parties when considering the commercial implications of integrated transactions involving sales or lease of goods as an aspect of that transaction, and by courts with respect to any related disputes.

Transactional Considerations Regarding the Scope Amendments. With the expectation of a forthcoming increase in the quantity and cumulative value of hybrid transactions, the clarification of the commercial law implications provided by the Amendments is certainly welcome. Further, having

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Generally, new Article 12 is intended to govern both the outright and collateral transfers of property rights in certain intangible digital assets, both existing and yet to be developed, using new technologies.

statutory hell or high water status for all or a part of the payments under a hybrid lease would be a very meaningful achievement for the equipment finance industry. The amendments will significantly impact how these emerging transactions will be structured and documented, and they will have beneficial implications when the related receivables are included in asset-backed capital markets transactions.

Digital Assets. Generally, new Article 12 is intended to govern both the outright and collateral transfers of property rights in certain intangible digital assets, both existing and yet to be developed, using new technologies.[39] DLT, including blockchain technology, is the platform for many of the digital assets that currently exist and was a major impetus for the revision project.[40]

Certain of these electronic records have been assigned an economic value by the users of the platforms on which they are exchanged or stored, including certain types of virtual (non-fiat) currency (e.g., Ether or Bitcoin) and NFTs. Other electronic records have no assigned value, but they have embedded payment rights exercisable by the owner of that electronic record.

Controllable Electronic Records. The rules of Article 12 apply only to "controllable electronic records" (CERs) and to certain types of payment rights evidenced by CERs.[41]

A CER is a *record,* which term is defined in the UCC as "information that is retrievable in perceivable form,"[42] and is stored in an electronic medium[43] that can be subjected to "control" by complying with new Section 12-105.[44]

According to the prefatory note, the "principal function of Article 12 is to specify certain rights of a purchaser of a controllable record," and a *purchaser* is "a person that acquires an interest in property by a voluntary transaction, such as a sale."[45]

Keep in mind that as defined in the UCC, *purchase* includes not only an outright sale, but also a discount, negotiation, security interest, or any other voluntary transaction creating an interest in property.[46]

Article 12 is intended to promote the commercial utility of a controllable electronic record by affording "qualifying purchasers" of CERs the ability to acquire that CER free of third-party claims of a competing interest.[47] In order for a purchaser to be a qualifying purchaser so as to enjoy the benefits of this "take-free" right, it must obtain control of a CER for value, in good faith, and without notice of any claim of a property interest in the CER.[48]

Control Under Article 12. The attributes of control under Article 12 are intended to be consistent with the characteristics of the electronic records and the protocols of the systems on which they are recorded, but are not

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Control of a controllable electronic record involves powers over it that are functionally equivalent to possession of tangible property. Having control is important to both a purchaser, to take free of competing claims, and to a secured party, for perfection and priority purposes.

technology-specific. These system attributes include, with respect to an electronic record, a use that one person can enjoy to the exclusion of others, the ability to transfer and divest itself of that exclusive power to use, and the ability to demonstrate to others its power to use electronic records.

Similar to "control" under new Section 9-105(b) and (c) for the purpose of perfecting a security interest in an authoritative electronic copy of a record evidencing the chattel paper, control of a CER involves powers over a CER that are functionally equivalent to possession of tangible property. Having control is important to both a purchaser to take free of competing claims and a secured party for perfection and priority purposes.

Although CERs are essentially information in an electronic medium, certain CERs have inherent value because there is a market for those CERs and that market establishes its value. Virtual currencies like Ether and Bitcoin are examples of such CERs because they may be exchanged for cash or other valuable assets or may be held as investments. However, other CERs may have no inherent value, but they nevertheless evidence the rights of parties to a transaction. Article 12 generally applies only to records, and not to the rights evidenced or purported to be evidenced by those records.

As noted above, an exception to that general rule are certain payment rights related or "tethered" to CERs, referred to as *controllable accounts* and *controllable payment intangibles.* These digital payment rights should be familiar to participants in receivables financings, and they are a subset of "accounts" and "payment intangibles," respectively. To qualify as a controllable account or controllable payment intangible, the related account debtor must agree to make payments to the person that has control of the CER evidencing the right to such payments.

The substantive provisions of Article 12 cover the rights of qualifying purchasers of CERs with tethered controllable accounts and controllable payment intangibles, as well as the rights and duties of the related account debtors and the rules on governing law. Concepts similar to these already existing in the UCC with respect to the nondigital forms of these payment rights (i.e., negotiable promissory notes) would allow these digital payment rights the attributes of "negotiability." That would mean that a qualifying purchaser of a CER with a tethered controllable account or controllable payment intangible would take that CER and tethered payment rights free of third-party claims.

The Amendments also include many related amendments to Article 9 pertaining to purchases and other security interests in CERs, including as to controllable accounts and controllable payment intangibles. Purchasers and secured lenders may perfect (i.e., achieve

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The digitization of the contracting process has already begun to impact how many equipment financing transactions are created, executed, transacted, financed, sold, maintained, and enforced.

priority over third-party claims) their interests in these assets by obtaining control of the asset or filing a financing statement in the appropriate state's filing office. Similar to the chattel paper perfection provisions of Article 9, a security interest perfected by control can have priority over a security interest perfected by filing.

Both the new Article 12 and Amendments to Article 9 include new choice-of-law rules that could have an impact on how transactions within the scope of these articles are documented, or on how the associated rights and interests of a party may be protected or afforded priority.

Transactional Considerations Regarding New Article 12. It is unlikely that Article 12 will have an immediate direct impact on the rights, remedies, validity, or syndication of equipment finance transactions. The intersection of equipment finance and new Article 12 is likely to relate to transactions involving payments by virtual currencies (e.g., payment of the purchase price to a vendor for the financed equipment), CERs with embedded payment rights (e.g., an assignment of a smart contract evidencing the right to payments associated with a software finance agreement), or NFTs as collateral. Certain transaction aspects (e.g., escrow arrangements) might also be managed on a DLT or other platform.

Market participants that have a practical understanding of the transactional opportunities afforded by new Article 12—whether involving CERs evidencing payment rights, payments by Bitcoin or other non-fiat cryptocurrencies or secured by other digital assets—could gain a competitive advantage by leveraging those.

IV. CONCLUSION, STATUS OF THE PROCESS

The digitization of the contracting process has already begun to impact how many equipment financing transactions are created, executed, transacted, financed, sold, maintained, and enforced. As noted above, this is especially true in the post-COVID world. This is no longer a nice-to-have functionality but increasingly a competitive requirement.

The Amendments being proposed are intended to keep pace with and reflect these market requirements. For example, the UCC has already been amended at least twice to cover electronic leases and other equipment financings originated, stored, transferred, and held for collateral purposes as electronic records.

As mentioned above, the Amendments have now been approved and recommended by the Uniform Law Commission for enactment in all of the states, and efforts are already underway in various states to introduce them for enactment.

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The most industry-relevant amendments refer to chattel paper and "bundled transactions."

If the Amendments are enacted by most if not all of the states, transacting on blockchain platforms, financing digital payment rights, and relying on virtual currencies as an exchange of value will be facilitated and accelerated.

Further, the systems and practices in originating and financing receivables related to leases or secured financings of equipment, especially if digitized, will require adjustments by the parties to those transactions.

Lastly, the emerging servitization trend in most of the equipment finance market should be much more attractive to originators, financing providers, and investors as a result of the statutory clarity regarding the reliability of the customer's payment obligations. ■

EXECUTIVE SUMMARY

LEASING/FINANCING LAW

The Uniform Commercial Code (UCC) is the core commercial law that impacts how equipment financings and leases are structured, documented, enforced, and traded in capital markets transactions across the 50 states.

THE AMENDMENTS

The UCC is in the final stages of being amended and could become effective as soon as early 2025. The amendments cover certain fundamental equipment finance-related matters as well as a new set of commercial laws regarding digital assets and transactions (e.g., blockchain platforms, virtual currencies, and nonfungible tokens, or NFTs).

EQUIPMENT FINANCE-RELATED AMENDMENTS

The most industry-relevant amendments relate to chattel paper and "bundled transactions."

Chattel Paper

Establishing which copy of a financing or lease will satisfy the UCC chattel paper requirements as well as the priority expectations of purchasers, funders, and rating agencies is essential in capital markets transactions. The current law does not adequately fit the spectrum of industry practices.

The amendments clarify how an originator can accomplish that purpose whether using paper, electronic documents, or a blockchain platform, either alone or in combination. Related changes to documents, transaction practices, and technology systems should be considered to take advantage of the amended laws.

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Bundled Transactions

The demand for *bundled transactions* (industry jargon for transactions that include both leases of equipment and something else related to the equipment—software, services, supplies, etc.) continues to increase, but financing them can be very challenging. The amendments, which refer to these transactions as *hybrid leases,* could make them much easier to finance. For example, hybrid leases meeting certain criteria could now be "chattel paper" for capital markets purposes.

Even better, the very lessor-favorable UCC provisions (Article 2A) could now apply to either the entire transaction (even the nonleasing part) or at a minimum the leasing part. That would depend upon whether the primary driver is the lease or the nonlease aspects of the transaction.

As amended, Article 2A is likely to be applied to a copier lease, which also includes some software, paper and maintenance. However, it would apply only to the lease of the laptops and servers that is a (smallish) part of a (larger) cloud services contract. That could be *huge* for originators and funders because a customer's promise to make all or at least the lease-related payments under a hybrid lease *could be* hell or high water. *Wow, right?* Originators should note the hints in the amendment comments regarding structuring and documenting hybrid leases to achieve these benefits.

DIGITAL ASSET-RELATED AMENDMENTS

To fill what is currently a technology gap in commercial law, the amendments add a brand new set of laws (new Article 12) and related amendments to existing law, to cover digital assets. The new and amended laws cover both outright transfers and financings of certain digital assets like virtual currencies, nonfungible tokens, and other "controllable electronic records" (CERs) existing on a blockchain platform. Certain CERs are likely to include an account or other payment right (e.g., the purchase price owed by a customer to a vendor).

The new law and the amendments will promote trade financing of these digital payment rights. They will also make it easier for parties to financings and leases to rely on a blockchain platform for escrow, payment, or other purposes, or to collateralize transactions by taking a security interest in digital assets on a platform. The new law and amendments could impact how transactions are structured as well as the closing and portfolio considerations, and result in time and cost savings, among other things.

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CONCLUSION

The amendments should be extremely helpful for the equipment lease and finance industry. However, the industry must evolve and recognize and adjust to the transactional benefits that could be achieved from the amendments.

Acknowledgment

The authors would like to thank Francisco K. Ishino, an associate in Vedder Price's Washington, DC, office, who supports the Global Transportation Finance practice group.

Endnotes

1. Quote attributed to Tim O'Reilly, founder of O'Reilly Media and author of many tech-related books and publications.

2. U.C.C. and Emerging Techs. (Uniform L. Commission, July 13, 2022) [hereinafter Amendments] (these "Amendments to the Uniform Commercial Code (2022)" were approved and recommended for enactment in all the states by the ULC on July 13, 2022, and are subject to revision by the Committee on Style of the National Conference of Commissioners on Uniform State Laws). Please note that the Amendments were published without "prefatory note" and "comments"; accordingly, our references in this article to the "prefatory note" and the various "official comments" are based on the prefatory note and official comments included in the draft titled, U.C.C. and Emerging Techs. (Uniform L. Commission, June 27, 2022, Draft) [hereinafter Draft U.C.C.]. The Draft U.C.C. was submitted for a final reading and approval at the ULC's Annual Meeting on July 8–14, 2022, and was approved and recommended for enactment with very few revisions during that meeting.

3. See Amendments, *supra,* § A-101.

4. Draft U.C.C., *supra,* Prefatory Note to 2022 ULC Annual Meeting Draft, at 2.

5. N.Y. U.C.C. Law § Ch. 38, arts. 2, 2-A, 9.

6. Draft U.C.C., *supra,* Prefatory Note to 2022 ULC Annual Meeting Draft, at 2.

7. The authors of this article were among the active equipment finance industry observers.

8. Draft U.C.C., *supra.*

9. Under existing U.C.C. § 9-109(a)(1) and (3), respectively, Article 9 applies to both "a transaction, regardless of its form, that creates a security interest in personal property or fixtures by contract" and "a sale of chattel paper," unless otherwise provided in that scope provision.

10. *Id.* (*"goods"* in the context of a lease or security interest means, as applicable, § 2A-103(1)(h), "all things that are moveable at the time of identification to the lease contract, or are fixtures"); § 9-102(a)(44) ("all things that are moveable when a security interest attaches," including fixtures).

11. See Draft U.C.C., *supra,* § 9-101 cmt. 5.b.

12. *Id.*

13. See Draft U.C.C., *supra,* § 9-314A(a) and (b).

14. See Draft U.C.C., *supra,* § 9-101 cmt. 5.b.

15. *Id.*

16. See Draft U.C.C., *supra,* § 9-314A cmt. 1.

17. *Id.*

18. *Id.*

19. Under the existing U.C.C. § 9-102(a)(31), "'electronic chattel paper' means chattel paper evidenced by a record or records consisting of information stored in an electronic medium."

20. *See* Draft U.C.C., *supra,* § 9-105 cmt. 2.

21. *Id.* § 9-314A cmt. 1.

22. *See* Amendments, *supra,* § 9-330(a)–(c).

23. *See* Draft U.C.C., *supra,* Prefatory Note to 2022 ULC Annual Meeting Draft, at 3.

24. *See e.g.* Stephen T. Whelan, *Bundle Up!,* Equipment Leasing & Fin. (Mar.–Apr. 2021); Dominic A. Liberatore, *The Nuts and Bolts of Bundled Transactions,* Equipment Leasing & Fin. (Jan.–Feb. 2016).

25. *See* Amendments, *supra,* § 2A-102(2)(a).

26. *See id.* § 2A-102(2)(b).

27. *See id.* § 2A-103(1)(h.1).

28. *See* U.C.C. § 2A-407(1).

29. *See* Draft U.C.C., *supra,* § 2A-102 cmts. 4–8.

30. *See* Amendments, *supra,* § 2A-102(2)(a) and (b).

31. *See* Draft U.C.C., *supra,* § 2A-102 cmt. 2.

32. *Id.*

33. *Id.*

34. *See* Amendments, *supra,* § 2-102(b).

35. Draft U.C.C., *supra,* § 2-102 cmt. 2.

36. *Id.*

37. *Id.*

38. *Id.* §§ 2-102 cmts. 3–5, 2A-102 cmts. 4–5.

39. *Id.,* Prefatory Note to 2022 ULC Annual Meeting Draft, at 3.

40. *Id.*

41. *Id.*

42. *See* U.C.C. § 1-201(b)(31).

43. Amendments, *supra,* § 12-102(a)(1).

44. Amendments, *supra,* § 12-105.

45. *See* Draft U.C.C., *supra,* Prefatory Note to Article 12, at 252.

46. "'Purchase' means taking by sale, lease, discount, negotiation, mortgage, pledge, lien, security interest, issue or reissue, gift, or any other voluntary transaction creating an interest in property." U.C.C. § 1-201(b)(29).

47. *See* Draft U.C.C., *supra,* Prefatory Note to Article 12, at 253.

48. Amendments, *supra,* § 12-102(a)(2).

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Higher Inflation, Rising Interest Rates Mean New Challenges and Opportunities for the Equipment Finance Industry

With the recent spike in inflation, some key trends should be of interest to equipment finance professionals. Expect the Federal Reserve to continue to raise rates, and expect some end-user markets to see reductions in demand. However, we expect to see industry firms continue their streak of innovation even as they contend with structural changes during these uncertain times.

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By Robert Wescott, PhD, Desmond Dahlberg, and Julie Coen

For the past couple of decades inflation has been well anchored, interest rates have been historically low, and the equipment finance industry has operated in a generally stable business environment. Lenders have been able to focus on dealmaking and customer management while enjoying relatively predictable pricing patterns and comfortable access to credit.

Further, steady gains in construction and capital spending, investment in new technologies, and strong consumer spending have produced healthy opportunities for business growth since the Great Recession. Recently, however, inflation has spiked, and the Federal Reserve has launched a campaign to significantly tighten monetary policy to contain inflation. These developments will bring rougher waters for the equipment finance industry to navigate.

However, the equipment finance industry is resilient and highly entrepreneurial. It has proven it can adapt to and thrive in varying business conditions—including recessions, periods of high unemployment, and even a global pandemic. The equipment finance industry should be able to handle higher inflation and interest rates if industry leaders carefully prepare for coming changes and adapt their businesses accordingly.

Four key findings of this article are that:

1. Inflation is likely to be higher for longer than many market-watchers expect.
2. The Federal Reserve will be forced to raise interest rates higher and more quickly than financial markets are currently forecasting.

Although the rate of inflation was higher in the late 1970s and early 1980s, it is worth noting that the acceleration in the rate of CPI inflation experienced over the past couple of years has been faster than any period since the late 1940s, in the immediate aftermath of World War II.

3. Certain end-user markets—including residential construction and automobiles—will suffer comparatively larger reductions in demand due to higher interest rates.
4. There are a number of opportunities for equipment finance firms to continue their streak of innovation during these uncertain times.

SOURCES OF RISING INFLATION

The sharp rise in inflation, from roughly 2% before the pandemic to more than 8% today, reflects a profound increase in prices. Although the rate of inflation was higher in the late 1970s and early 1980s, it is worth noting that the *acceleration* in the rate of consumer price index (CPI) inflation experienced over the past couple of years has been faster than any period since the late 1940s, in the immediate aftermath of World War II.

Economists have several theories about the sources of inflation. A core theory is that inflation accelerates when aggregate demand exceeds aggregate supply—or in layman's terms, when the economy overheats. This theory is based on the view that if consumers and businesses want to purchase more goods and services than the economy can produce, prices will be bid up to temper demand, stimulate supply, and thereby reconcile the discrepancy.

Another popular theory sees *cost-push* as a source of inflation. If one major industrial sector, like energy, experiences a price shock, it can drive up inflation across the whole economy and lead to price increases in seemingly unrelated sectors. Many economists would cite the oil price surges in the 1970s, including spikes caused by oil embargos, as a key source of high inflation during that period, for example.

A third theory sees a critical link between *wages and prices,* whereby rising inflation can stoke worker demands for higher wages, which then can become embedded in future business costs and thus future price increases. The fact that wages represent about 70% of business costs across the U.S. economy means that many businesses may feel compelled to raise their prices if the wages they pay their workers are steadily increasing.

Yet another theory of inflation arises from *monetary economics,* which sees a strong link between the money supply and inflation. In this view, excessive "printing of money" by the Fed will ultimately lead to higher prices because there are more dollars chasing a fixed amount of goods and services.

Finally, economists see several other factors that could amplify inflationary pressures. The loss of access to cheap goods from an external source, like China, could worsen inflation. A massive shift in consumer demand, from, say,

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Virtually every theoretical source of inflationary pressure has been signaling higher inflation over the past couple of years. The root cause was the massive shock from the global pandemic, but other factors include Russia's invasion of Ukraine and the ensuing spike in energy prices.

services to goods because of a global pandemic could cause an unexpected surge in goods prices. And supply-chain disruptions, caused, say, by factory shutdowns would also be expected to boost inflation.

Unfortunately, virtually every one of these theoretical sources of inflationary pressure has been signaling higher inflation over the past couple of years. The root cause was the massive shock from the global pandemic, but other factors have been important also, including Russia's invasion of Ukraine and the ensuing spike in energy prices, along with the rising cost of labor in China, which has removed a key source of disinflation from global markets.

Highly Stimulative Fiscal Policy

A key inflationary driver has been the public policy response to global shutdowns and the spike in the U.S. unemployment rate, which jumped to roughly 15% almost overnight when Covid hit. The size and scope of the support and stimulus measures enacted during the pandemic, at about $6 trillion, were unprecedented and exceeded even the scale of fiscal injection (as a share of GDP) that the U.S. economy experienced in 1942 as it shifted to a wartime footing in the first year of World War II.

Pandemic programs included three rounds of stimulus checks to most American households, expanded unemployment insurance programs that in some cases replaced more than 100% of a worker's prepandemic earnings, and generous child tax credits that were distributed monthly to mostfamilies.

A critical fiscal component was the Paycheck Protection Program (PPP), a lending program designed to keep workers on payrolls even while their employers suffered from pandemic-related revenue declines. PPP loans were 100% forgivable if basic stipulations were observed, and ultimately about $800 billion was disbursed across the life of the PPP—roughly 4% of GDP.

The combination of suppressed consumer spending early in the pandemic and increased incomes put large amounts of spending power in the pockets of U.S. consumers. According to our calculations, even now, in early summer 2022, households retain about $2 trillion of "dry powder": spending power that continues to boost aggregate demand well ahead of increases in aggregate supply.

Monetary Stimulus

The Federal Reserve was also instrumental in providing support during the pandemic. The Fed started by cutting its policy interest rate to zero and launching several new lending programs. However, the Fed's most significant action was its quantitative easing (QE) program, which entailed large-scale purchase of financial assets to tamp down long-term interest rates. The purchases included U.S. government bonds, mortgage-backed securities, and even corporate bonds.

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Rolling shutdowns of key industrial cities and major ports in China suggest that shortages of key materials and products will continue. These factors are likely to remain headwinds for inflation over the rest of 2022 and perhaps well into 2023.

The Fed's balance sheet ultimately expanded from $4.2 trillion in February 2020 to roughly $9 trillion in April 2022, a sharp run-up that easily exceeded the three rounds of QE following the Global Financial Crisis in the late 2000s and early 2010s.

Higher Energy Prices and Other Cost-Push Pressures

Energy prices had begun trending upward over the course of 2021 as global travel started to rebound, but oil prices jumped from the $70 to $80 range before Russia invaded Ukraine to the $110 to $130 range once hostilities commenced. Higher energy costs quickly become embedded in domestic transportation fees, especially for jet and diesel fuel.

A related issue is rapidly rising grain and food prices brought about by the looming loss of the roughly 30% of global wheat exports that originate in Russia and Ukraine. At the same time, China locked down millions of its citizens and shuttered whole cities because of virus outbreaks.

Rolling shutdowns of key industrial cities and major ports in China suggest that shortages of key materials and products will continue. These factors are likely to remain headwinds for inflation over the rest of 2022 and perhaps well into 2023.

Wage-Price Dynamics

As the economy recovered after the initial wave of the pandemic, the U.S. labor market not only healed but boomed, leading to what many now call the "Great Resignation." By April 2022, there were 1.9 job openings for each unemployed worker in the United States—the highest number since the U.S. government began collecting this data 70 years ago. Small businesses have been particularly pinched, with 47% of U.S. small businesses currently reporting job openings they cannot fill. The resulting competition for workers has pushed up wages.

Indeed, in the first four months of 2022, hourly earnings growth for production and nonsupervisory workers averaged 6.6%, the fastest four-month growth rate since the early 1980s. Wage gains have been most pronounced among job classifications that historically have experienced the lowest average wage rates, including leisure and hospitality workers and retail trade workers, according to the Bureau of Labor Statistics (BLS) (Figure 1).

A policy challenge for the Fed is that once wage gains start to accelerate, they are not easily moderated. Even if wage growth slows, higher labor costs can become embedded into prices, especially in the service sector.

Other Factors Affecting Inflation

In the early months of the pandemic, many manufacturers cut back on production as a combination of demand uncertainty and worker outages forced factories

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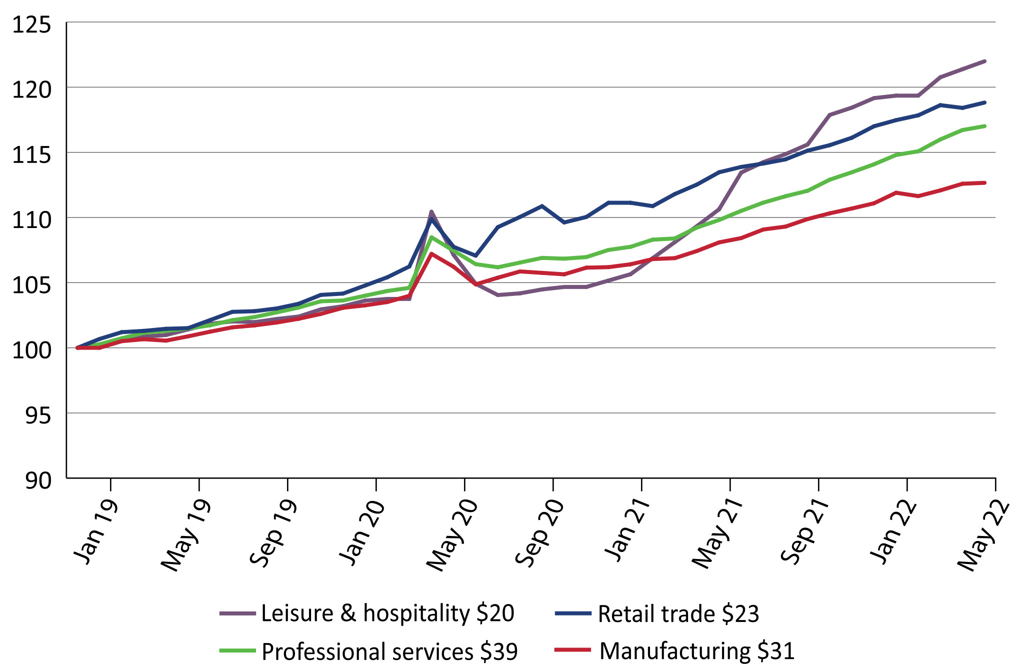
Annual inflation for goods began to accelerate in June 2020 and has surpassed both the headline rate and annual inflation for services in each month since January 2021.

Figure 1. Average Hourly Earnings by Industry



Note. SA = seasonally adjusted.
Source. Bureau of Labor Statistics.

to halt operations. Manufacturing capacity utilization plunged from about 76% in 2019 to 61% in April 2020 and was below 75% for another eight months, putting production in a deep hole.

At the same time, the pandemic led consumers to spend less on services and more on goods, especially durable goods. Rather than booking travel, hair appointments, or elective medical procedures, Americans bought home office equipment, furniture, consumer electronics, sporting goods, and vehicles.

Spending on durable goods, adjusted for inflation, was 13% higher in the six months after the start of the pandemic than its trend from the previous decade, and this sudden surge in demand for the products affected by production slowdowns put upward pressure on prices.

Annual inflation for goods began to accelerate in June 2020 and has surpassed both the headline rate and annual inflation for services in each month since January 2021.

WHERE IS INFLATION LIKELY TO GO?

Nearly every factor described above suggests that inflation is likely to remain elevated for some time. Figure 2 shows different measures of six-month annualized rates of inflation. *Constrained items* are goods and services that have

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“Top 25 to Watch” prices now are increasing at a 6% annualized rate—a rate that suggests inflation is likely to remain in at least the 5% to 6% range over the rest of 2022 and likely well into 2023.

been particularly affected by the pandemic, including energy prices, prices of new and used vehicles, and rental car prices.

Keybridge’s “Top 25 to Watch” is a set of CPI components that should not be particularly affected by pandemic-related disruptions. These include rents, the costs of owner-occupied housing, water and trash collection bills, and a wide range of consumer services, like financial services, veterinary services, and wireless phone services. Together, these spending categories account for about 60% of the overall CPI and should proxy underlying inflation. “Top 25 to Watch” prices now are increasing at a 6% annualized rate—a rate that suggests inflation is likely to remain in at least the 5% to 6% range over the rest of 2022 and likely well into 2023.

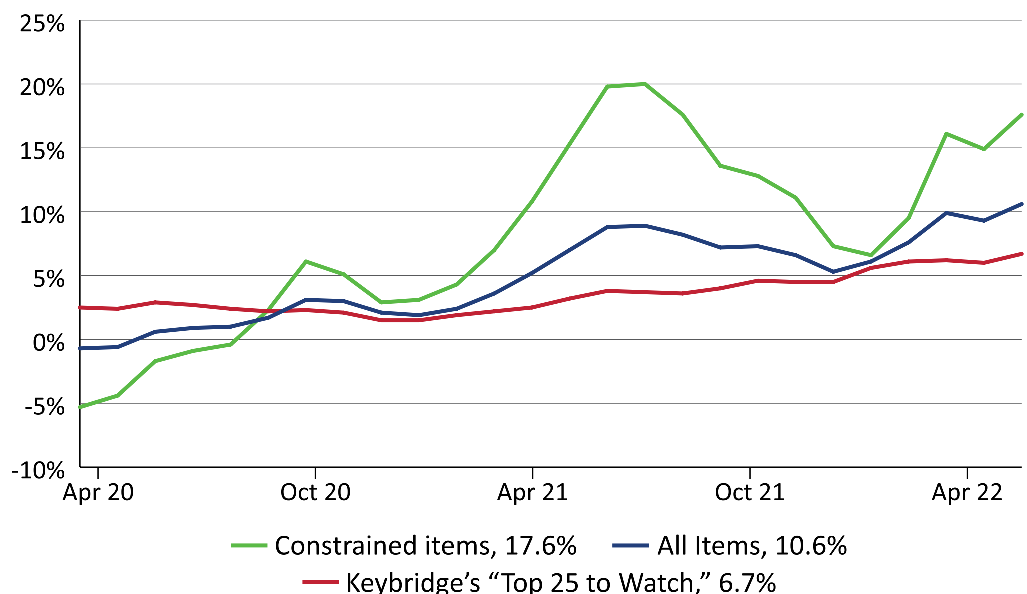
LIKELY MOVEMENTS IN INTEREST RATES

Analytical Frameworks Suggest Interest Rates Need to Go Higher Than Many Believe

Recently both Federal Reserve Chair Jerome Powell and Treasury Secretary (and former Fed Chair) Janet Yellen have acknowledged that inflation is running hotter than they

Figure 2. Change in Consumer Prices by Catetory

6-month annualized rates, monthly



Note. In August 2021 Keybridge conducted an analysis of data from the Bureau of Labor Statistics and assigned 70+ components of the Consumer Price Index to the categories “constrained” and/or “Top 25 to Watch” based on our thinking about which goods and services are only temporarily constrained by pandemic-era factors, versus which are likely to show longer-term inflation (e.g., electricity, rent, and a variety of services). Additional data and discussion is available upon request.

Source. Bureau of Labor Statistics, authors’ calculations.

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The real federal funds rate today is on the order of negative 7%, suggesting that the Fed's monetary policy will remain highly stimulative if the Fed simply raises its nominal federal funds rate to the 3% to 4% range.

expected and have stated that the Fed made a mistake in not moving earlier to raise interest rates.

Market players now expect that the Fed will need to raise the fed funds rate to the range of 3% to 4% by the end of 2022 to begin to bring inflation back down toward the Fed's long-run target of about 2%.

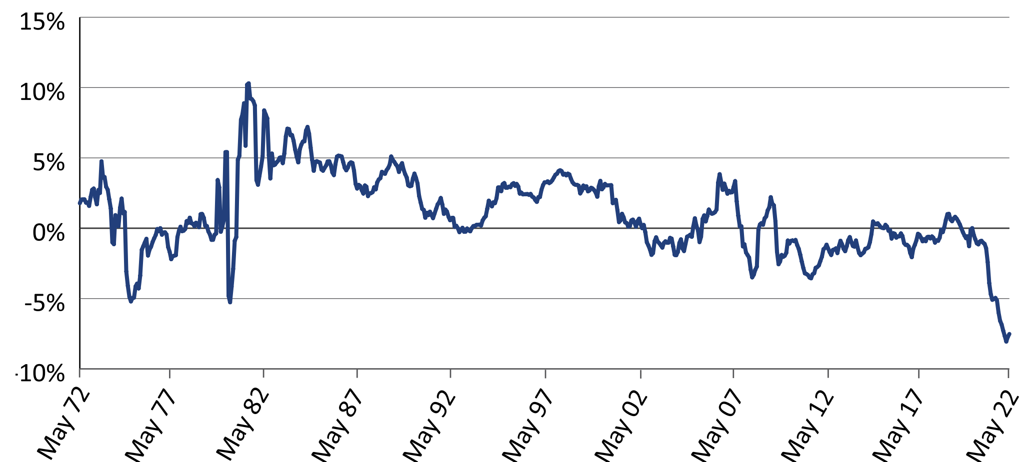
However, two useful analytical frameworks suggest this target range will be insufficient to bring about a decline in inflation of this magnitude. First, the real federal funds rate (the federal funds rate adjusted for CPI inflation) is an instructive shorthand measure of the stance of monetary policy, with a real rate of 2% considered roughly neutral, a *real* rate of 3% to 4 % considered tight, and a real rate of 0% to 1% considered easy.

As seen in Figure 3, the *real federal funds* rate today is on the order of negative 7%, suggesting that the Fed's monetary policy will remain highly stimulative if the Fed simply raises its nominal federal funds rate to the 3% to 4% range.

Second, Federal Reserve reaction functions—or so-called *Taylor Rules*—are useful for showing what federal funds rate the Fed would be likely set if it were true to its own historical experience, given current inflation and unemployment data. According to a recent reaction function estimated by the Federal Reserve Bank of St. Louis, the federal funds rate should be in the high single digits and approaching double digits given today's CPI inflation rate of more than 8% and an unemployment rate of 3.6%.

Together these frameworks suggest that the federal funds rate will need to be in the 5% range by late 2022 even to begin to put inflation on a

Figure 3. Real Federal Funds Rate



Source. Adapted from Federal Reserve and Bureau of Labor Statistics.

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For monetary policy to work in its normal fashion, it must curb demand sufficiently to alleviate price pressures, which ultimately will create a measure of pain in labor markets and product markets.

path back toward the Fed's target range. This is well above the Fed's forecast.

Further, we believe that the balance of inflationary risks—including from Russia's invasion of Ukraine, an accelerating wage-price spiral, and China's Covid-zero policy—skew toward higher inflation for longer. Therefore, we believe the fed funds rate could rise in 2023 as well, likely approaching 5% to 6% (a level not seen since 2007), unless a recession emerges in the coming quarters.

The Fed Is Not Likely to Engineer Immaculate Disinflation

Some financial analysts are optimistic that the Fed can engineer *immaculate disinflation*—that is, a perfectly smooth path to lower inflation that avoids triggering an economic slowdown or recession. While this is possible in theory, in our judgment it is not likely.

For monetary policy to work in its normal fashion, it must curb demand sufficiently to alleviate price pressures, which ultimately will create a measure of pain in labor markets and product markets.

This is especially true in our view once inflation is firmly embedded in the services sector.

NEW CHALLENGES AND OPPORTUNITIES FOR THE EQUIPMENT FINANCE INDUSTRY

Higher inflation and higher interest rates will present challenges and opportunities for the equipment finance industry. Some capital-intensive business sectors are likely to face squeezes they have not seen in many years. At the same time, productive assets, like equipment, should remain in demand as economic conditions tighten.

Meanwhile, industry veterans we interviewed for this report emphasized the need for firms in the equipment finance industry to find new opportunities to grow their businesses by designing and offering new products that help their customers manage their risks better—something the industry has a proven track record of doing.

The Equipment Finance Industry May Benefit, at Least for a While, From Rising Interest Rates

Several factors may actually increase the demand for financing in the short run, including strong equipment demand and favorable lease-versus-buy conditions. Industry experts we interviewed pointed out that higher interest rates could pull forward equipment acquisitions as lessees and borrowers seek to limit their interest costs before those costs increase even more.

Meanwhile, inflation tends to be positively correlated with demand for real assets. The reason is that physical assets, like equipment, tend to hold their value better during inflationary periods, thanks to the widening spread between the cost of owning or financing

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Borrowers and lessees value certainty in uncertain times, and equipment finance firms will continue to provide access to financing products that help reduce uncertainty.

the equipment (a constant) and the revenue generated by the equipment (which typically rises with inflation).

Further, historically high costs for key inputs, such as steel and aluminum, along with substantial supply-chain disruptions have driven up equipment replacement costs. According to the BLS, average input costs for machinery manufacturing were up 19% in the first four months of 2022 compared to the same period a year prior. High replacement costs have in turn propped up used equipment values, a boon for lessors.

Elsewhere, rising labor costs and a record-high number of job openings have forced many businesses to automate more tasks, accelerating a transition that was already under way prepandemic—especially in high-touch service-sector industries like food service and retail. This should represent potential new demand for equipment.

The Lease-Versus-Buy Decision Still Should Favor Leasing

There are several reasons to think that equipment users will still view leasing favorably as interest rates rise and inflation remains high. First, leasing will continue to provide cost certainty in a volatile macroeconomic and financial environment. The last two years have been rife with uncertainty thanks to the pandemic, a sharp recession, domestic policy shifts, and even geopolitical conflict. Borrowers and lessees value certainty in uncertain times, and equipment finance firms will continue to provide access to financing products that help reduce uncertainty.

Aside from reducing uncertainty, new accounting changes favor leasing in the lease-versus-buy debate. As is well known, ASC 842, FASB's new lease accounting standard, brings most operating leases onto firms' balance sheets, whereas they used to exist as off-balance-sheet items.

Though leases are now being pulled onto balance sheets, operating leases can be capitalized at a discount to an asset's true cost (often less than 90%, according to industry veteran Bill Bosco), and for assets with significant residual values, especially transportation and infrastructure assets, the amount capitalized on-balance-sheet often will be significantly less than the asset's cost. This in turn will help support measures of profitability, cost of capital, and other financial performance metrics.

Effects of Rising Interest Rates on Equipment End-User Markets

Despite the possibility that the equipment finance industry could experience positive demand early in an environment of rising interest rates, the Fed's goal of cooling inflation is likely to bring a slowdown in demand for interest-sensitive businesses, including housing,

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Rising mortgage rates will weigh on demand for new homes, slowing demand for construction equipment. In typical interest rate cycles, housing starts fall by one-third to one-half as the Fed tightens, suggesting that starts could decline to the 1.0 to 1.2 million-unit level from the current 1.6 million-unit level.

automobiles and light trucks, and capital goods in general.

Residential and Nonresidential Construction

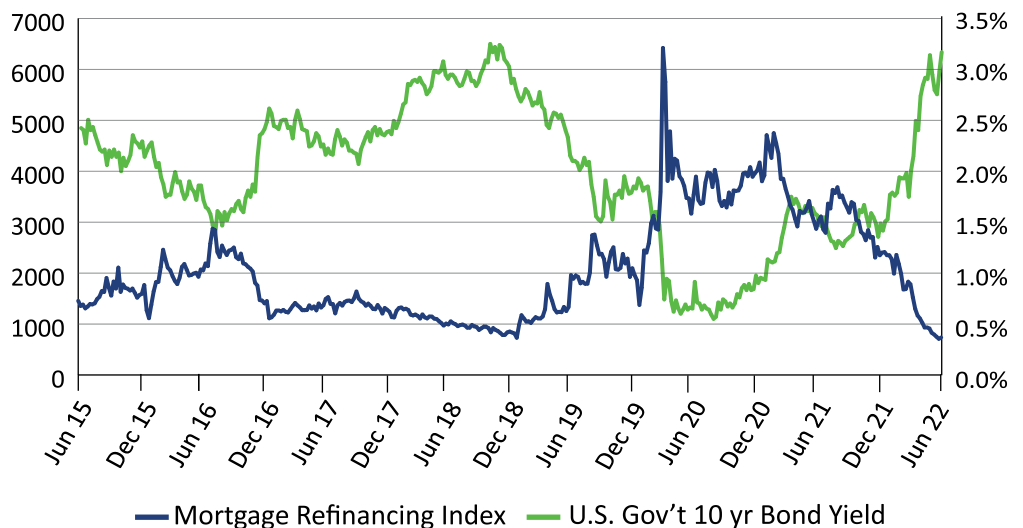
The housing market is suffering from both rapidly rising input costs and higher mortgage rates. According to the BLS, input costs for residential construction were up 20% year-on-year in April 2022 (and up 41% from April 2019).

Rising construction costs have begun to weigh heavily on homebuilding activity; sales of new homes under construction dropped in April 2022 to the lowest level since the onset of Covid. As long-term interest rates have increased, mortgage refinancing activity has dropped to multiyear lows as shown in Figure 4, a likely precursor of trends with mortgage originations as well.

Rising mortgage rates will weigh on demand for new homes, slowing demand for construction equipment. In typical interest rate cycles, housing starts fall by one-third to one-half as the Fed tightens, suggesting that starts could decline to the 1.0 to 1.2 million-unit level from the current 1.6 million-unit level.

Nonresidential construction is also likely to soften as economic growth slows. Demand for construction equipment, but also equipment that goes into construction projects like electrical and mechanical

Figure 4. Mortgage Refinancing Activity and Long-Term Interest Rates



Note. LHS = left-hand side; RHS = right-hand side.

Source. Adapted from Mortgage Bankers Association and Macrobond Financial.

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Rising interest rates may help shore up portfolio performance in the near term. Essential-use equipment with existing leases or loans becomes even more valuable during periods of rising interest rates as the terms of a new lease or loan become less favorable.

equipment, is likely to slow in response.

Automobiles and Light Trucks

Likewise, the automotive sector is likely to see demand weaken as interest rates rise. In a normal interest rate increase/economic growth slowdown cycle, sales of new vehicles tend to decline by about a quarter—from the 16 million to 17 million-unit level to the 12 million to 13 million-unit level.

One twist in 2022 is that the pandemic-induced shortage of key inputs (especially semiconductors) has left pent-up demand for perhaps 3 million units still to be met, and this may moderate the downturn in demand for new vehicles. However, the combination of record prices and falling real disposable income is already forcing some lower-income consumers out of the market for both new and used cars.

Capital Goods in General

In a typical business cycle downturn caused by Fed tightening, the demand for capital goods tends to decline by about 15%—less than the roughly 30% decline experienced during the Great Recession of 2008–2009—but still a significant reduction in demand, and much greater than the 1% to 2% reduction in real GDP typical in recessions.

Portfolio Performance May Benefit in the Short Run, but Then Is Likely to Worsen

Balance sheets currently are very strong. According to the Federal Reserve, delinquency rates for lease financing receivables on banks' balance sheets fell through the end of 2021 to just over 1.0%. Similarly, according to ELFA data, as of April 2022, charge-offs among equipment finance firms were 0.05%—a series low. Healthy balance sheets give the industry a solid jumping-off point as the Fed hikes rates.

Further, rising interest rates may help shore up portfolio performance in the near term, according to industry veterans interviewed for this report. Indeed, essential-use equipment with existing leases or loans becomes even more valuable during periods of rising interest rates as the terms of a new lease or loan become less favorable. This will likely incentivize operators of essential equipment to stay current on their payments.

However, if the Fed raises interest rates steadily to cool off the economy, as expected, many key end-user markets will be hit. Equipment finance lenders should look back at their historical portfolio experience during the recessionary periods of 1991–1992, 2001, 2008–2009, and the manufacturing sector slowdown in 2016 for indications of what they might see in delinquency and loss experiences in a potential economic slowdown in the coming one to two years.

Experiences during the pandemic recession of 2020 are probably not very instructive because of the historic stimulus and support measures discussed earlier.

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Rising interest rates may pinch smaller, independent financing operations sooner and with more force than in past periods of rapid rate hikes because independent lenders are less likely to be able to pass on rising cost of funds as fast as they may have in the past.

Structural Changes Coming to the Equipment Finance Industry

Spread Compression Will be Around for a While, Especially for Independents

One of the ways in which today's equipment finance industry differs from the industry of the 1970s and 1980s, when inflation was high, is the prevalence of banks. Rising interest rates may pinch smaller, independent financing operations sooner and with more force than in past periods of rapid rate hikes because independent lenders are less likely to be able to pass on rising cost of funds as fast as they may have in the past.

Lower spreads, especially in the independent space, will mean that lessors will have to be sure to prioritize their most profitable deals—especially when labor shortages and equipment shortages are limiting transaction volume in the near term.

Over time, as interest rates increase, there should be more scope for lenders to widen spreads, but firms will have to keep a close eye on competitors that may have better access to capital and a lower cost structure.

Lenders and Lessors Will Need to Monitor Residual Values More Closely

Another factor that will require increasing attention during inflationary periods is residual value. Equipment prices are high and rising for several reasons, including broad-based inflation, strong demand, and the inability to procure replacement equipment. Equipment finance firms will have to consider whether current asset prices are indicative of future asset prices—especially for assets with useful lives measured in years.

Indeed, many of the headwinds plaguing the equipment sector today may dissipate faster than expected if the Fed's action proves to be more effective than expected. As a result, lessors and lenders might consider developing new probabilistic models of valuation that explicitly take heightened uncertainty into account when forecasting residual values, as in Rode, Fischbeck, and Dean (2002).

Shifting Industry Structure

The effects of high inflation and rising interest rates will not be felt evenly across the industry. According to equipment finance veterans, industry consolidation typically happens "from the middle out" when interest rates are rising. Firms operating mainly in the mid-ticket space may see increased competition from larger financial institutions with lower costs of funds.

At the same time, substantial volatility and uncertainty could cause some larger financing firms to pull back, leaving smaller, more nimble lenders and lessors to gain market share.

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Further, the prospect of delayed delivery times for new equipment has led to many lessees requesting month-to-month extensions of existing contracts. Equipment finance firms may include specific provisions in new contracts that lay out the terms of short-term extensions of leases or loans.

Opportunities for the Equipment Finance Industry From Heightened Uncertainty

The equipment finance industry has a long history of developing innovative new products, and an environment of rising interest rates is likely to create opportunities for more of this activity. In past eras of high inflation and rising interest rates, equipment finance firms introduced financing products that allowed their customers to lease or borrow according to their individual risk profile and, importantly, according to their own inflation expectations.

These new products might include a floating-rate product, a float-plus-fixed product, or a fixed-and-fixed product where the interest rate resets after a given period.

Expanding one's menu of available financing products will demonstrate to customers that a lender is evolving with changing financial conditions and likely will generate goodwill that encourages repeat business, according to industry veterans interviewed for this report.

Another aspect of the uncertainty worth monitoring is the risk arising from the period between generating a quote and closing a deal. If lessors are not doing so already, they should consider shortening the quote-to-close window and/or implementing a safety valve that automatically reprices a deal in the event of a substantial rate shift.

Risks stemming from the quote-to-close window may also be compounded by significant equipment delivery delays that are likely to continue through 2022 and beyond. Further, the prospect of delayed delivery times for new equipment has led to many lessees requesting month-to-month extensions of existing contracts. Equipment finance firms may want to consider including specific provisions in new contracts that lay out the terms of short-term extensions of leases or loans.

Broadening Labor Pools

Finally, by some measures the labor force is as tight as it has ever been. For example, according to the BLS, in April there were more than 500,000 openings in the financial activities sector, just shy of a record set in July 2021. According to the Foundation's 2021 Industry Future Council report, *Looking Ahead to the Post-Pandemic Economy,* younger generations have different priorities when it comes to where they work, who they work for, and how they work. For more insight into recruiting the next generation of equipment finance workers, see Section III of the 2021 IFC report.

A tight labor market and high inflation mean that firms will have to broaden their outreach to make sure they can recruit and retain world-class talent. This may involve reaching out to diverse applicant pools that may not have been major sources of workers in prior years. Firms will also need

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One fruitful area, foreshadowed by finance firms in the higher inflation era of the late 1970s and early 1980s, would be to offer customized lending products that allow customers to match loan terms to their inflation and interest rate risk tolerance levels.

to closely monitor wage and salary adjustments to make sure they remain competitive in the marketplace. Inflation adjustments of 2%, 3%, or 4%, which may have been adequate in past years, are unlikely to satisfy employees given that inflation is running at 8%.

CONCLUSION

The equipment leasing and finance industry will likely feel significant effects from rising inflation and the Fed's actions to fight that inflation. The industry may experience some short-run benefits in the early stages of rising interest rates, as this may bring more scope for spreads to widen.

However, rising interest rates will almost certainly bring softness and possibly outright downturns in key end-use markets for equipment, including the construction sector, the motor vehicle sector, and the capital goods sector more broadly. Industry players need to be aware that in a typical recession, U.S. real GDP tends to decline by 1 or 2 percentage points from peak to trough, but business fixed investment tends to decline by 15%.

There will be plenty of opportunities for equipment finance companies to offer new products to their customers. One fruitful area, foreshadowed by finance firms in the higher inflation era of the late 1970s and early 1980s, would be to offer customized lending products that allow customers to match loan terms to their inflation and interest rate risk tolerance levels.

The industry veterans interviewed for this report are confident that equipment finance firms will continue to innovate and succeed in this new era of high inflation and rapidly rising interest rates. ■

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