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**Dematerialization of Warehouse Receipts in the Commodity Markets**

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## Dematerialization of Warehouse Receipts in the Commodity Markets

This paper discusses the trend towards dematerialization of warehouse receipts that is employed in agricultural markets in the United States. Dematerialization refers to the process by which physical paper title documents are destroyed and converted into electronic receipts. As will be discussed below, although the trend towards electronic warehouse receipts (“EWRs”) has been ongoing in the United States, it has not reached the stage of complete dematerialization. Today, both forms of chattel paper exist in the U.S. agriculture, with “physical chattel paper,” where records of information are stored in paper format, coexisting with “electronic chattel paper,” where records consisting of information are stored in an electronic medium. Moreover, even this limited form of dematerialization has extended only to a handful of commodities, namely cotton and a few grains. Nevertheless, the movement towards electronic documents of title, which began several decades ago in the securities sector, is now taking hold in the agricultural sector in the U.S.

### **Background**

In the United States, as in other countries, warehouse receipts are title documents issued by a warehouse to depositors against commodities deposited in the warehouse. Such receipts are transferable by endorsement and delivery and may be used as collateral for crops held in commercial storage and as delivery documents that are acceptable for trading on futures exchanges, against letters of credit in payment for exports, and other commercial transactions. *Dematerialization and Rematerialization in Commodity Markets*, available at <http://www.mbaknol.com/investment-management/dematerialization-and-rematerialization-in-commodity-markets/>.

Warehouse receipts facilitate financing in the agricultural sector in a number of ways. Such receipts are important for securing collateral by assuring holders of the existence and condition of agricultural inventories “sight unseen.” They allow farmers to finance their production and processors to finance their inventories. And they serve as an important tool in case of default allowing the holder of the receipt to collect on the underlying physical collateral or its monetary equivalent if there is a default on any obligation guaranteed with the warehouse receipt.

In addition to serving as a form of collateral for physical commodities held in storage, warehouse receipts play an important role in the delivery process, serving as delivery instruments against financial contracts. As a negotiable instrument, a warehouse receipt entitles the holder to take delivery of the commodity upon presentation of the receipt at the warehouse. Moreover, since warehouse receipts are transferable, they can also be accepted for delivery against a derivative instrument such as a futures contract, *i.e.*, rather than delivering the actual commodity, warehouse receipts can also be used to settle expiring futures contracts. *See generally, Richard Lacroix & Panos Varangis, Using Warehouse Receipts in Developing and Transition Economies*, Finance & Development / September 1996, available at <http://www.imf.org/external/pubs/ft/fandd/1996/09/pdf/lacroix.pdf>.

Warehouse receipts are generally recognized as contributing to the creation of cash and forward markets and forming the basis for trading commodities, since they provide all the essential information needed to complete a transaction between a seller and a buyer. Where transactions involve the delivery of goods on a future date, warehouse receipts can form the basis for the creation of a forward market and for the delivery system in a commodity futures exchange. Trading on the basis of warehouse receipts is also associated with increased liquidity and reduction in transaction costs.

Since buyers need not see the goods, transactions need not take place at either the storage or the inspection location. With a functioning Warehouse Receipt system, commodities are rarely, if ever, sold at the warehouse proper. A transaction can take place informally or on an organized market or exchange. In either case, the Warehouse Receipt forms the basis for the creation of a spot, or cash market. If transactions involve the delivery of goods on a future date, Warehouse Receipts can

form the basis for the creation of a forward market and for the delivery system in a commodity futures exchange. A broader benefit of Warehouse Receipts is that they increase the confidence of participants, particularly those in the private sector, in market transactions.

*Report of the Working Group on Warehouse Receipts & Commodity Futures, Department of Banking Operations and Development, Reserve Bank of India, Mumbai, (April 2005), at 25 (“Working Group Report”), available at <http://www.rbi.org.in/upload/PublicationReport/Pdfs/62932.pdf>. Conversely, the absence of well-developed warehouse receipt activity is often cited as a factor impeding financial markets. *Id.* at 60-61(citing “under-developed supporting systems such as Warehouse Receipts” as an important factor in the poor performance of commodity exchanges in India).*

### **Paper vs. Electronic Receipts**

Traditionally, warehouse receipts were issued in physical form, which permitted ownership of stored goods to be transferred between members of the trade by endorsement, or by attaching a delivery note, without fear that ownership by holders in due course can be successfully challenged, or subjected to unforeseen liens. Although physical or paper warehouse receipts were freely transferable by endorsement and delivery, over time a number of limitations became apparent. For example, such receipts could not accommodate partial transfers, as the receipts themselves could not be divided or split apart. The need to move the warehouse receipts from one place to another created risks of theft/mutilation, loss in transit if the transferor and transferee were at two different locations. There was also the risk of forgery inherent in physical paper receipts.

At the same time, the advantages of electronic over paper receipts have increasingly become more apparent. As one commentator has observed, “[e]lectronic Receipts are superior to paper receipt from the point of view of easy tradability, security and divisibility.” *Working Group Report, at 44.* Unlike physical or paper warehouse receipts, electronic warehouse receipts may be divided up or issued in partial form, *i.e.*, split up or fractionalized to thousandths of the whole, which can then be executed by the bearer on demand. In addition, the digital nature of electronic warehouse receipts acts as a catalyst for lowering administrative and operational costs, with the reduction or elimination of manual handling and transporting of paper documents (along with their attendant risks), the ability to move information more efficiently, reduction of forgery and fraud, and the ability to create an audit trail of receipt activity among the most important. At the same time, the absence of the *electronic* form of warehouse receipts is increasingly being perceived as an impediment to the use of warehouse receipts in general as a method of financing. *See Working Group Report, at x* (citing absence of electronic warehouse receipts as a constraint in further expansion of warehouse financing).

More recently, a movement “from hard-copy chattel paper to electronically stored and processed chattel paper” is perceived as being beneficial by allowing for chattel paper to be transferred or securitized at a lower cost. Jane K. Winn, *Electronic Chattel Paper: Invitation Accepted*, Sep. 2010 (Working Draft), at 4, available at [http://www.uncitral.org/pdf/english/colloquia/EC/Winn\\_ECP\\_2010.pdf](http://www.uncitral.org/pdf/english/colloquia/EC/Winn_ECP_2010.pdf).<sup>1</sup> One provider of EWRs summarizes the benefits provided by electronic format as follows:

Warehouses can instantly view the history of every EWR issued or held for a detailed audit trail. In addition, warehouses can put an electronic warehouse receipt in ‘suspended’ status and still issue a regular paper receipt, if a customer prefers to have a paper receipt.

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<sup>1</sup>See also, LamonRutten, Alexander Belozertsev, & Frida Youssef, *Assessment of the Possibilities for an Agricultural Futures Market in Ukraine*, Ukraine/World Bank Agricultural Competitiveness and Food Safety Project (2005), at 47 (finding that costs for farmers and other depositors of grains and commodities under a system of dematerialized warehouse receipts in Ukraine “would be much lower than that of the current paper-based system.”).

Warehouses can issue electronic warehouse receipts for collateral purposes and their lender immediately assumes control of the receipt and can transfer funds to the warehouse within a matter of minutes. In addition, warehouses can eliminate the costs and delays associated with overnight delivery or physically transporting negotiable paper warehouse receipts to and from lenders.

eGrain, *Benefits of Electronic Warehouse Receipts (EWRs)*, available at <https://www.egrain.com/benefits-ewr.aspx>.

Finally, proponents of EWRs also emphasize the relative safety of electronic receipts as compared to their tangible counterparts, a feature that may seem counterintuitive to those who prefer holding the latter:

Although some react with alarm at the notion of not having a “paper trail” of documentation, it is probable that the electronic system provides more protection than paper documents.

In the cotton system, records that track the transfer of a warehouse receipt are meticulously maintained — and they can be called up at any time. System providers have backup upon backup of their critical records and can usually piece any transaction together. Simply put, it should be harder to permanently lose an electronic record than it is a paper one.

William S. Gillion, *Electronic warehouse receipts*, Southwest Farm Press (Apr. 12, 2001).

### **Dematerialization of Warehouse Receipts in the United States**

The movement from paper to electronic warehouse receipts in the U.S. must be viewed in a larger context of a more general movement towards electronic receipts that preceded it in the securities industry. Even before 1980, American securities markets had largely dematerialized securities transactions. Martin J. Aronstein, *Security Interests in Securities: How Code Revision Reflects Modern Security-Holding Practices*, 10 UCC L.J. 289, 290 (1978). This development was largely facilitated by Congressional action to streamline securities settlement by allowing for the “immobilization” of securities traded on exchanges, which allows for securities to be held in a central depository (*i.e.*, the Depository Trust Company) for the account of its beneficial owner, obviating the need for both physical delivery and transfer of shares. David C. Donald, *The Rise and Effects of the Indirect Holding System: How Corporate America Ceded its Shareholders to Intermediaries*, Institute for Law and Finance, Working Paper Series No. 68 (Sep. 2007), at 23.

Even more crucial were revisions in the legal and regulatory system to accommodate electronic records, especially those pertaining to the Uniform Commercial Code, which was updated to accommodate negotiable electronic documents of title. Article 7 of the Uniform Commercial Code (“UCC”), which covers warehouse receipts and other documents of titles, was amended to define the term “record” to mean information that is inscribed on either a tangible medium “or that is stored in an electronic or other medium and is retrievable in perceivable form.” § 7-102(10). In addition, the UCC was updated to allow electronic documents to be created, sorted, and assigned in such a manner as to create as a “single authoritative copy” that is “unique, identifiable, and . . . unalterable.” **However, these changes to the UCC did not require complete dematerialization.** *See e.g.*, § 7-105 (allowing for the issuance of a **tangible** document of title to substitute for an **electronic** document). In particular, under the UCC, a warehouse receipt need not be in any particular form. § 7-202.

In addition, in 1999, U.C.C. Article 9 governing secured lending was updated to permit the creation of electronic chattel paper (“ECP”). The comments to Revised UCC noted the possibility of converting paper chattel paper into electronic form, but as one commentator observed “overlooked the possibility that someone in control of ECP might prefer to be in possession of traditional chattel paper instead.” Winn, *Electronic Chattel Paper*, 46 Gonzaga L. Rev. 407 (2010/11). Further, a revision to U.C.C. § 9-105 defined a new form of control over ECP, treating such electronic chattel as equivalent to possession of traditional chattel paper, and permitting chattel paper financiers to retain their super-

priority status with electronic documents. As one article describing this development notes, “[w]idespread use of ECP benefits lenders by reducing the cost and increasing the speed of their administrative processes, and also benefits investors by lowering the cost of securitizing loans and leases in the form of ECP. Winn, *Electronic Chattel Paper*, 46 Gonzaga L. Rev. 407 (2010/11). By 2010, the UCC had been revised to accommodate both forms of chattel paper and more importantly, to permit conversions of such chattel paper in either direction. *Id.* at 424.

Perhaps the most significant development in the creation of ECP in the U.S., however, has been the development of a system for electronic warehouse receipts by the US Department of Agriculture. In 1993, the cotton industry in the U.S. succeeded in securing an amendment to the United States Warehouse Act (“USWA”) to require States to treat electronic warehouse receipts the same as paper receipts. Because paper receipts historically were required for each bale of cotton, the industry pushed for electronic warehouse receipts “as a means to introduce significant efficiencies into an antiquated system of handling commodity sales transactions.” William S. Gillion, *Electronic warehouse receipts*, Southwest Farm Press(Apr. 12, 2001). The amended law provided that a person designated as the “holder” of an electronic receipt would be deemed to be in possession of the receipt just as if the person were holding a paper receipt.

Under this new system, the Secretary of Agriculture sets standards for financial security and other safeguards and for the standardization of electronic warehouse receipts. But the actual issuance and transfer of receipts remains with the private sector with “system providers” authorized to maintain computer systems while individual warehouses contract with such providers in order to use electronic warehouse receipts for cotton. It is estimated that electronic receipts represent more than 90 percent of the U.S. cotton crop stored. *Id.*

These developments involving cotton were followed by amendments to the USWA in 2000 to expand the use of warehouse receipts in electronic form to other commodities. As amended, the USWA authorizes the Secretary of Agriculture to promulgate regulations “governing one or more electronic systems under which electronic receipts may be issued and transferred and other electronic documents relating to the shipment, payment, and financing of the sale of agricultural products may be issued or transferred.” USWA, Title II, Sec. 3. Under the USWA, a “holder” is defined as “a person that has possession in fact or by operation of law of a receipt or any electronic document.” USWA, Title II, Sec. 2.

More importantly, the amended law requires States to treat electronic receipts the same as paper receipts, and clarifies that warehouse receipts may be in either paper or electronic formats. Regulations issued by the Department of Agriculture pursuant to the USWA clearly authorize warehouse receipts to be issued in electronic form provided that only one person may be designated as the holder of an EWR at any one time. *See* § 735.303.<sup>2</sup>

As a result of this expanded authority, EWRs are currently being issued via a trial system that allows grain and oilseed elevator operators to issue electronic warehouse receipts (EWRs) for corn, soybeans and wheat pledged by producers as collateral for 2011 crop year. *See Electronic warehouse receipt trial system expands to 236 states, Sep. 13, 2011, available at <http://www.feedandgrain.com/news/10358581/electronic-warehouse-receipt-trial-system-expands-to-36-states>.*

## **Conclusion**

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<sup>2</sup>*See also*, § 735.3 (defining an “electronic warehouse receipt” as “a warehouse receipt that is authorized by [the Department of Agriculture] . . . in the form of an electronic document”; § 735.300(a)(3) (clarifying that warehouse receipts may be “in a paper or electronic format” as prescribed by the Department’s Deputy Administrator for Commodity Operations).

Although electronic versions of warehouse receipts have been around for nearly two decades in the U.S., their scope has been limited somewhat in two respects: First, EWRs have been used primarily only for cotton, and more recently, in a trial with respect to several grains. Nevertheless, the legal and regulatory framework has been established that will permit for the expansion of this trend to other commodities in the agricultural sector. Second, true dematerialization, whereby paper records are completely replaced with electronic ones has not occurred. Instead, as in the securities sector, the two coexist peacefully to allow those who desire to possess the hard, or tangible records to be able to do so.

