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Loans on sale: Credit market seasonality, borrower need, and lender rents☆

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ABSTRACT

The market for corporate credit is characterized by significant seasonal variation, both in interest rates and the volume of new lending. Firms borrowing from banks during seasonal "sales" in late spring and fall issue at 19 basis points cheaper than winter and summer borrowers. Issuers during cheap seasons appear to have less immediate needs, but are enticed by low rates to engage in precautionary borrowing. High-interest-rate periods capture borrowers with unanticipated, non-deferrable investment needs. Consistent with models of intertemporal price discrimination, seasonality is strongly associated with market concentration among a few large banks with repeated interactions.

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1. Introduction

Predictable and pronounced seasonal variation is not uncommon in commodity prices. Systematic patterns in the demand or supply of a product can lead to corresponding patterns in prices over the calendar year. Yet these seasonal patterns can only persist in the presence of frictions preventing intertemporal substitution by buyers or sellers. For example, electricity prices are high during peak summer demand, but inefficiencies in electricity storage prevent customers from smoothing demand by buying during cheap seasons for later use.[2] Wheat prices tend to fall

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[2] U.S. Energy Information Administration (2015) [http://www.eia.gov/electricity/data.cfm].

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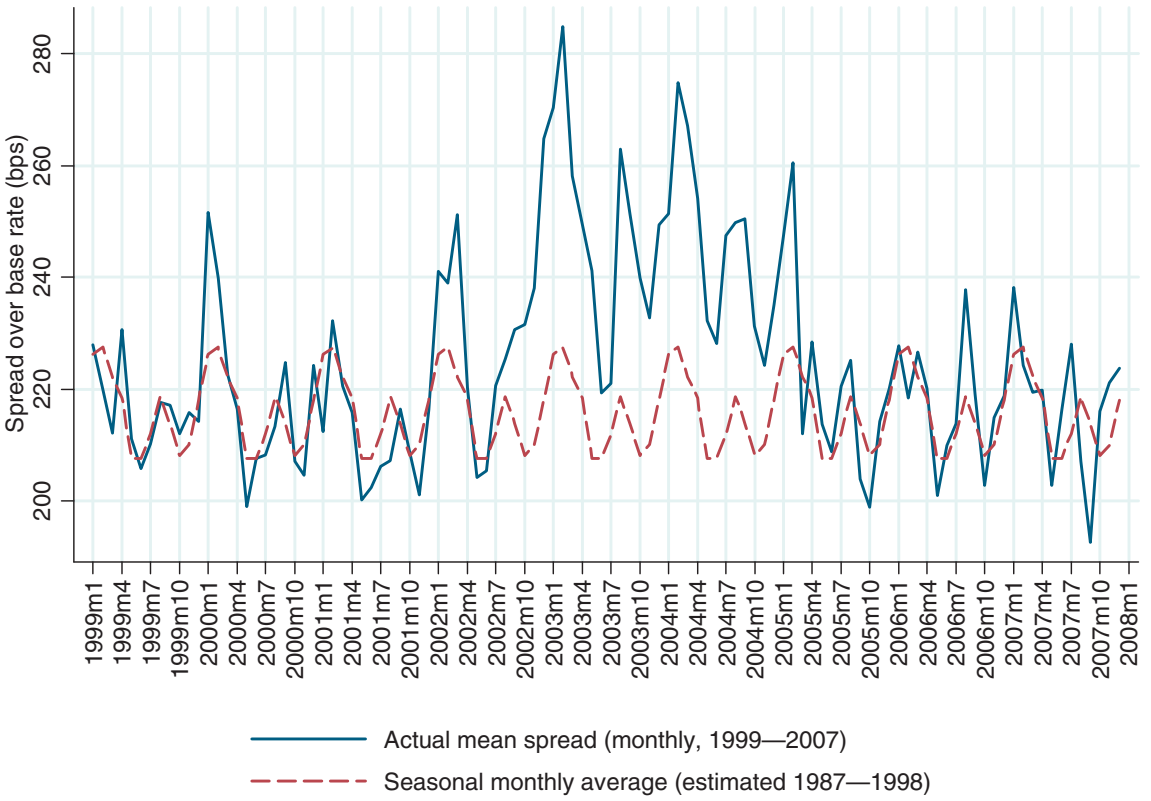

Fig. 1. Loan spread seasonality. The solid line depicts average monthly spreads over base rate for loans negotiated between 1999 and 2007, where the month represents the loan's effective date. The dashed line represents a simple out-of-sample seasonal prediction based on the average spread for each calendar month from 1987 to 1998.

during harvest because "many farmers dispose of their crop as it is harvested to avoid…costs of handling and storage" (Meinken, 1955), but as storage costs have fallen, the seasonality of agricultural commodities has diminished.

The presence of pronounced seasonal variation in the cost of financial capital, however, is unexpected in a modern and diverse economy with well-developed capital markets. In theory, storing capital should be very low cost and, while individual industries may have specific seasonal funding demands, one might expect the aggregate seasonal component across a diverse set of industries to be low. In this paper, we show that the market for syndicated loans is characterized by significant and predictable seasonal variation, both in interest rates and the volume of new loans. Firms borrowing during seasonal "sales" in late spring and fall (May/June and October) issue at 19 basis points cheaper and raise 50% more total funding than winter and summer borrowers (January/February and August). This seasonal pricing is clearly visible in Fig. 1: the solid line plots the average monthly loan spread for new issue loans reported by DealScan from 1999 through 2007. The predictable peaks in pricing every 12 months closely align with a crude, out-of-sample seasonal predictor of each calendar month's mean spread estimated in a non-overlapping sample from 1987 to 1998 (the dotted line).

Although seasonal volumes could easily be explained by coordinated variation in supply and demand, the predictability in market interest rates raises intriguing questions about borrower and lender behavior. What kind of firms rationally borrow in high priced periods as opposed to moving their demand to less expensive months? What prevents lender competition from smoothing out the seasonal markups that we observe? Answering these questions can provide broader insights into the behavior of borrowers and lenders.

From the borrower's perspective, we begin by noting that, if firms perceive predictable and meaningful variation in risk-adjusted credit spreads, this should alter their issuance strategy. Thus, one immediate challenge of the paper is to decompose seasonality into the underlying seasonal markups and compositional effects based on borrowers' best response to those seasonal markups. By way of analogy, if the cost of calling a plumber on Sunday night is expensive, Sunday night service calls will be different than those which occur Monday morning. The inability of customers to wait until Monday and the difficulty of anticipating the problem may be related to the severity of the plumbing problem. A predictable change in the markup over time will lead to corresponding variation in the types of plumbing problems requiring repair, as customer behavior responds to pricing. Of equal interest is the underlying time variation in pricing and its effect (or the limitations of its effect) on customer behavior.

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