# The Dollar and Corporate Borrowing Costs

## Ralf R. Meisenzahl\* Friederike Niepmann\*\* Tim Schmidt-Eisenlohr\*\*

\* Federal Reserve Bank of Chicago, \*\* Federal Reserve Board

Overview	
Estimate effect of dollar moves on leveraged loan prices and quantities	
Exploit high-frequency, within-loan identification strategy	
$\sigma_{Dollar} \uparrow \rightarrow$ Spread 15 bps $\uparrow$ , Loan Amount 2% $\downarrow$ .	

• F • F • 1

## Introduction

#### **Dollar and Loan Terms**

		$\Delta$ Effectiv	ve Spread		$\Delta Amount$
	(1)	(2)	(3)	(4)	(5)
$\Delta Broad Dollar$	7.033***	5.471***	5.458***	3.392***	-0.022***
	(1.218)	(1.233)	(1.231)	(1.263)	(0.009)
$\Delta \text{VIX} (\log)$	-17.55***	-21.77***	-21.73***	-19.09***	$0.120^{***}$
	(5.517)	(5.499)	(5.509)	(5.556)	(0.050)
$\Delta AAA-BBB$ Spread		94.42***	88.38***	53.68**	-0.192
		(20.78)	(20.48)	(21.50)	(0.117)
$\Delta US$ Term Spread	17.58	9.687	12.54	7.988	-0.085
	(12.17)	(12.11)	(11.50)	(12.28)	(0.083)
$\Delta E con.$ Cond. Index		-12.82	-12.91	1.233	-0.081
		(9.464)	(9.345)	(9.725)	(0.064)
$\Delta US$ Libor	83.93***	$52.19^{*}$	$54.98^{*}$	7.973	-0.025
	(28.22)	(29.06)	(28.45)	(36.89)	(0.166)
$\Delta 2$ -Year Treasury	-38.87**	-22.15	-26.02	-12.57	$0.254^{*}$
	(15.89)	(16.10)	(16.29)	(16.30)	(0.143)
Industry	No	No	Yes	Yes	Yes
Purpose	No	No	Yes	Yes	Yes
Lead Agent	No	No	Yes	Yes	Yes
Year-Quarter	No	No	No	Yes	No
Observations	3235	3235	3224	3224	1745
$R^{2}$	0.079	0.090	0.134	0.190	0.087

Since the global financial crisis, the dollar has been shown to be a key variable affecting global financial cycle. This paper presents evidence on the effect of dollar appreciation on leveraged loan interest rates spreads and quantities. By studying how loan terms change during the syndication process, we exploit high-frequency identification within loans, avoiding issues with borrower selection and confounding macro factors.



• Effective Spread increases in the Dollar

- Robust to also including CIP deviations and Treasury basis.
- Holds for industries without direct trade exposure.

**Identification:** Estimate the effect of dollar changes *after* the deal is launched to when loan terms are finalized ( $\Delta Dollar$ ) on loan term changes during the primary market book-running.

## **Asymmetric Effects**

Fm	nirical	S	nocit	ficat	tion
	piitai		pecn	llla	

• **Hypothesis:** Dollar appreciations, indicating lower demand, should increase the effective spread.

 $\Delta Effective \ Spread_{i,t} = \beta \Delta Dollar_t + \gamma X_i + \epsilon_{i,t}$ 

•  $\Delta Dollar$  is the change in the broad dollar index during the first 12 days after the beginning of the syndication process.

•  $\Delta Effective Spread$  is: Change in spread + original issue discount (OID) / 4 during the syndication process

	(1)	(2)	(3)	(4)
	$\Delta \mathrm{Eff.}$ Spread	$\Delta \text{OID}$	$\Delta Spread$	$\Delta Amount$
$\Delta Broad Dollar > 0$	15.87***	4.468***	14.76***	-0.022***
	(2.563)	(1.638)	(2.364)	(0.008)
$\Delta Broad Dollar < 0$	4.503	-2.550	-3.886	-0.0014
	(2.903)	(1.876)	(2.684)	(0.0116)
Loan Controls	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes
Purpose	Yes	Yes	Yes	Yes
Lead Agent	Yes	Yes	Yes	Yes
Observations	2,956	2,956	2,956	2,956
$R^2$	0.14	0.11	0.13	0.07

• The effect is concentrated in dollar appreciations.

• 1  $\sigma_{Dollar}$   $\uparrow \rightarrow$  Spread 15 bps  $\uparrow$  and Loan Amount 2%  $\downarrow$ .

## Conclusions

- Institutional investors reduce their demand for leveraged loans when the dollar appreciates.
- Tight link between risk attitudes of global investors and the dollar is not captured by the Treasury basis or CIP deviations.
- Dollar channel potentially works through investors' balance sheets
- Global capital markets' attitudes affect the borrowing costs of risky U.S. corporates.
- U.S. borrowers are affected by foreign developments and the global financial/dollar cycle.

## **Contact Information**

### Ralf Meisenzahl: ralf.mesisenzahl@chi.frb.org