

The Global Financial Crisis

Module 6 Anxiety, Part 1

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Outline

Module 6

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01 Some Notable Events in 2007

Some Notable Events in 2007

April 2007

New Century: 4/2/07 (REIT with market cap of \$1.75 billion on 1/1/07, delisted 3/13, filed for bankruptcy 4/2)

June 2007

S&P/Moody's significant downgrades beginning in June 2007

Bear Stearns suspends redemptions: 6/7/07

July 2007

Bear Stearns liquidates funds: 7/31/07

August 2007

BNP Paribas funds: 8/9/07

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02 ABX

ABX

The ABX-HE (or just “ABX”), is an index of credit default swaps (CDS) written on subprime mortgage securitizations. The price of the ABX index is essentially a measure of perceived value of subprime securities with various ratings; the return (or spread) on the ABX is essentially a risk premium for subprime.

The index was created by the firm Markit, and first released in January 2006 covering the 20 largest subprime securitizations that closed in the last six months of 2005. These indices were denoted as ABX-HE 2006-1. Subsequent releases were denoted 2006-2, 2007-1, and 2007-2 before subprime activity became too small for index construction.

The launch of ABX in 2006 was a notable event, as it allowed everyone to see, speculate, and hedge – **for the first time** – market expectations about subprime.

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03 ABX Data

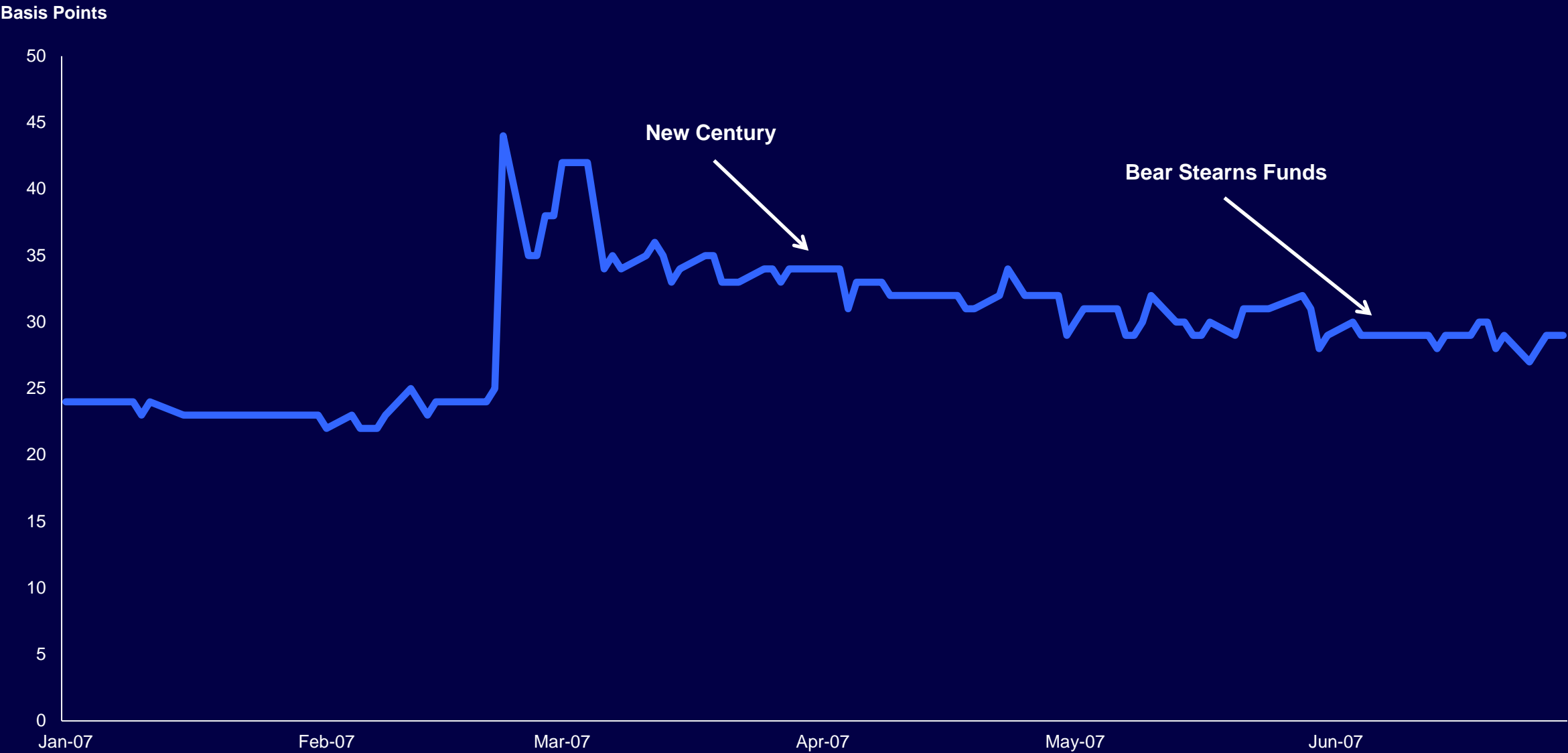
ABX.HE Spreads, 2006-1 Series, BBB Rating

January – July 2007



ABX.HE Spreads, 2006-1 Series, AAA Rating

January – July 2007



ABX.HE Spreads, 2006-1 Series, BBB Rating

July – December 2007



ABX.HE Spreads, 2006-1 Series, AAA Rating

July – December 2007

Basis Points



BNP Paribas

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04 Anxiety Spreads to Interbank Markets

How Could We Be So Wrong?

“... given the fundamental factors in place that should support the demand for housing, we believe the effect of the troubles in the subprime sector on the broader housing market will likely be limited, and we do not expect significant spillovers from the subprime market to the rest of the economy or to the financial system.”

- Chairman Bernanke in a speech on May 17, 2007

Anxiety Spreads

The bad news in subprime was well-known by the time of Chairman Bernanke's speech. Indeed, the news events in the spring of 2007 seem uncorrelated with the movements in the ABX.

Instead, the problem became the uncertainty about the location of subprime risk. Which securitized bonds were exposed to subprime? Which financial institutions would need to support their investment vehicles?

The financial system is not equipped to analyze "safe" investments. The resources for deep analysis of information are not there.

Consider what you would do if you had uninsured deposits at a bank, and you became nervous about the bank's solvency. Is it rational to analyze the bank's balance sheet, or to just take your money out?

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05 LIBOR-OIS

LIBOR-OIS

The London Interbank Offered Rate (LIBOR) is a measure of the interest rates that banks charge each other for unsecured dollar funding over various time periods (overnight, one-month, three-month etc.)

The Overnight Index Swap (OIS) is a fixed-floating interest-rate swap for various time periods. Because the amounts owed daily are small and counterparties must continuously post collateral for expected payments, the fixed leg of this swap is considered to be a good proxy for risk-free interest rates.

The LIBOR-OIS spread is thus a good measure for the riskiness of banks' unsecured borrowing. Historically, this spread was very small (around ten basis points).

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06 LIBOR-OIS Data

3 Month LIBOR-OIS Spread



Source: Bloomberg.

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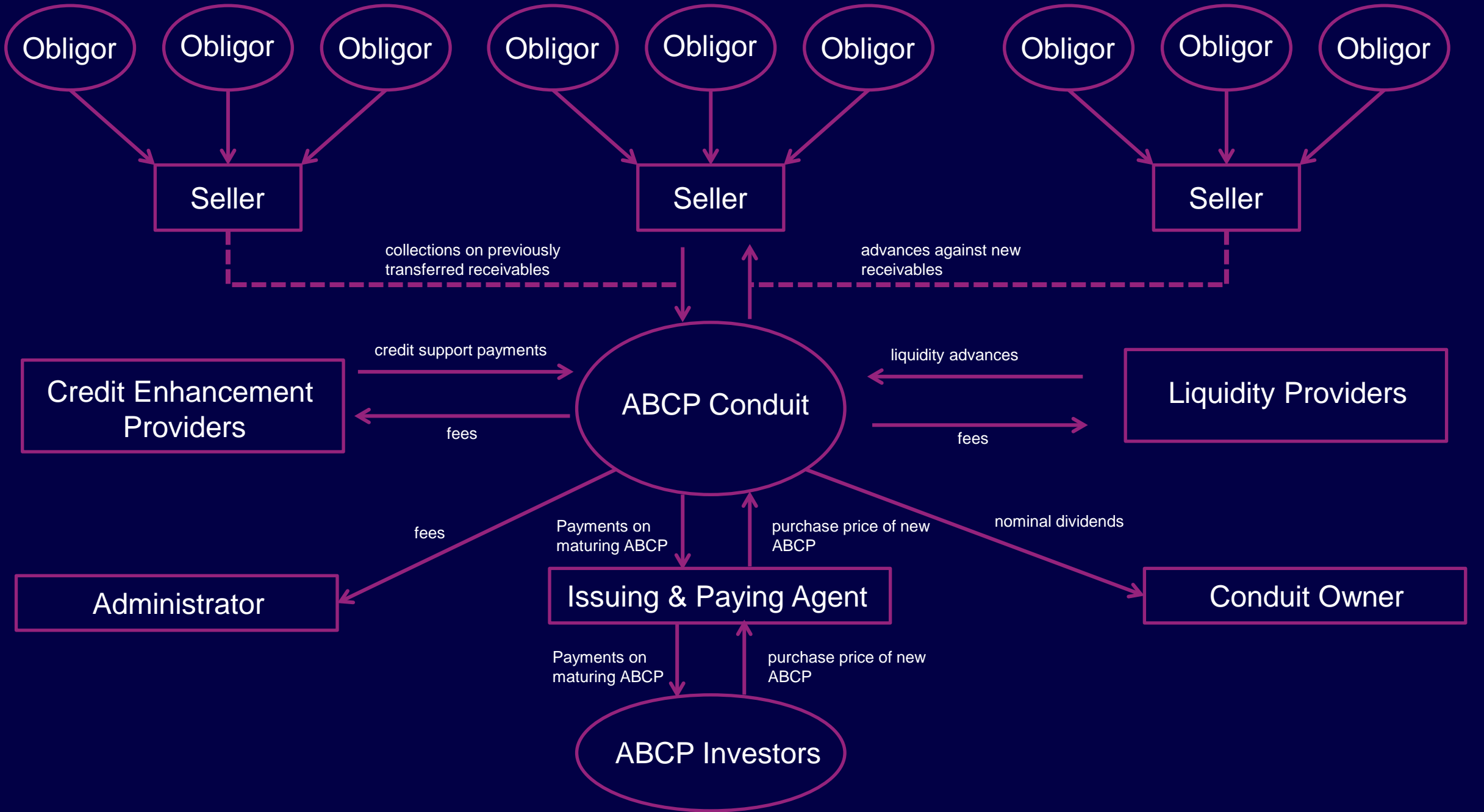
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07 Asset-Backed Commercial Paper

Asset-Backed Commercial Paper

Asset-backed commercial paper (ABCP) is primarily a method of maturity transformation – funding a pool of long-term assets with short-term liabilities.

ABCP is designed to meet specific needs of investors (often money-market mutual funds), and includes credit enhancement and liquidity support to achieve this goal.



ABCP vs. Securitization

ABCP may appear similar to securitization, but there are many differences:

- Investments can be revolving and fluctuate in size**

- Conduits may invest in various asset types**

- Typically engage in maturity transformation, with backup liquidity support**

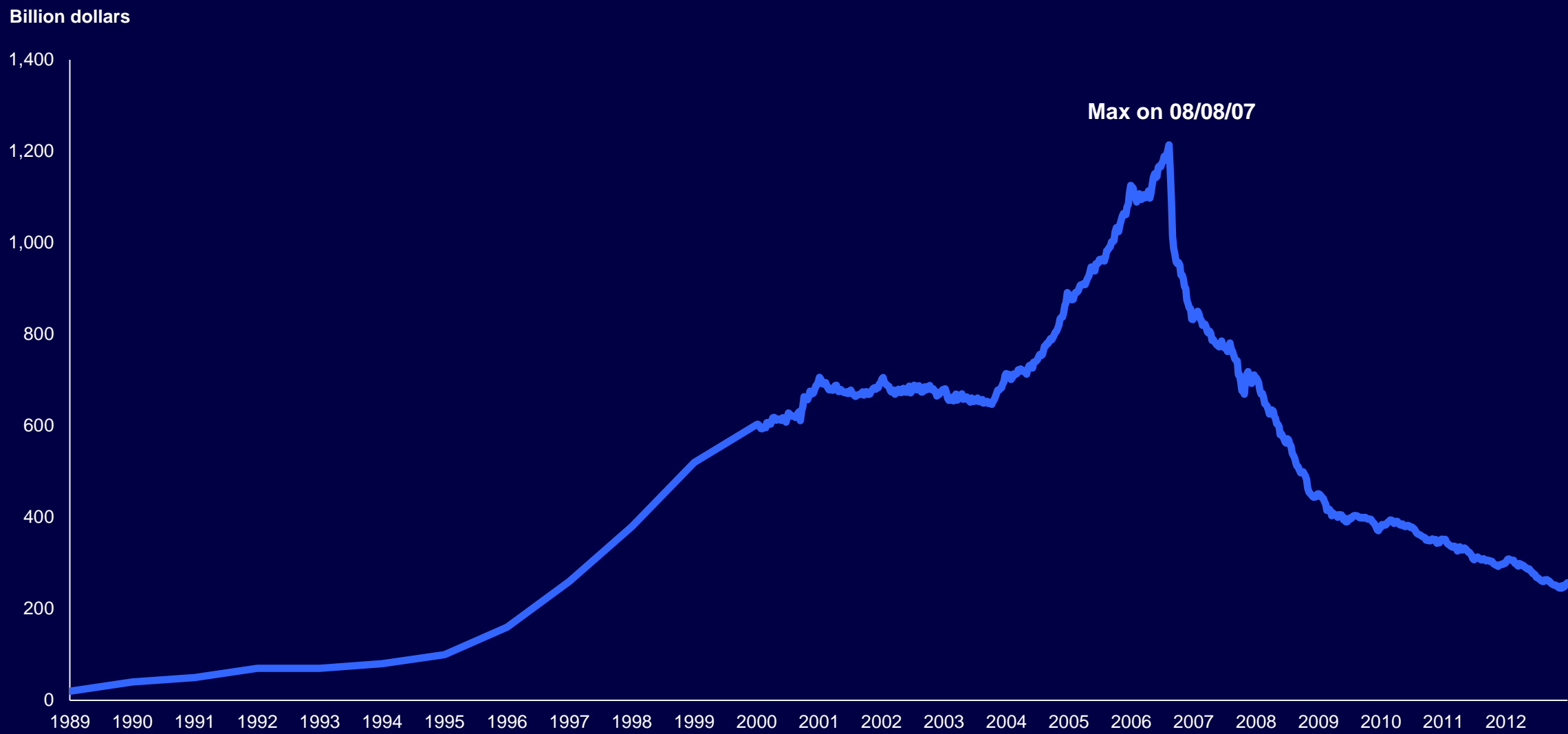
- No scheduled amortization of assets and liabilities**

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08 ABCP Data

ABCP Outstanding



Source: Fitch Ratings, Federal Reserve Bank of St. Louis.

ABCP Data

ABCP programs grew rapidly in the 1990s, and then again in the crucial 2003-2007 period.

As of 2007, ABCP programs took many forms, and were not dominated by any particular type of sponsor.

ABCP Program Types

ABCP programs by program type, as of July 2007

Program Type	Assets	Number of Programs	Market Share by Outstanding (%)	Programs with Extendible Paper (%)	Programs with Credit Support (%)	Programs with Large US Bank Sponsors (%)	Programs with Small US Bank Sponsors (%)	Programs with Foreign Bank Sponsors (%)	Programs with Nonbank Sponsors (%)
Multi-seller	Diversified receivables and loans	98	45	19	30	19	4	57	20
Nonmortgage single seller	Credit-car receivables and auto loans	40	11	62	28	8	10	8	74
Mortgage single seller	Mortgages and mortgage-backed securities (MBS)	11	2	67	0	9	9	0	82
Securities arbitrage	Highly rated long-term securities, including MBS	35	13	9	17	14	11	66	9
Structured investment vehicle	Highly rated long-term securities, including MBS	35	7	0	0	11	0	23	66
CDO	Highly rated long-term securities, including MBS	36	4	25	0	0	3	3	94
Hybrid and other N.A.		84	18	20	10	5	2	12	81
Total		339	100	24	16	10	5	30	55

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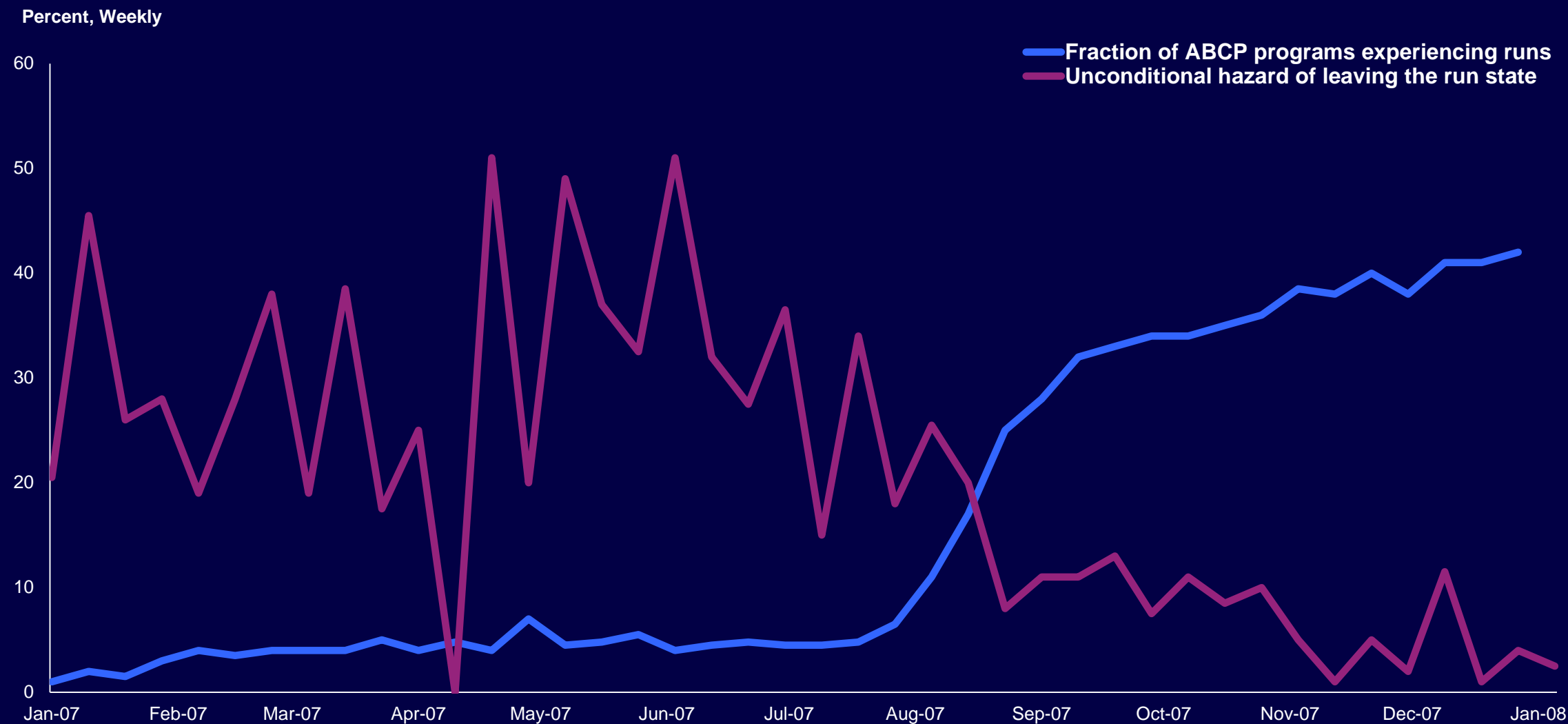
09 ABCP Runs, Part 1

ABCP “Runs”

Covitz, Liang and Suarez define an ABCP “run” as a week when the program does not issue new CP despite having at least 10% of outstanding CP mature.

Runs became endemic in August 2007, and once a program experienced a run it was unlikely to ever leave that state. By December 2007 more than 40% of programs were in a run state.

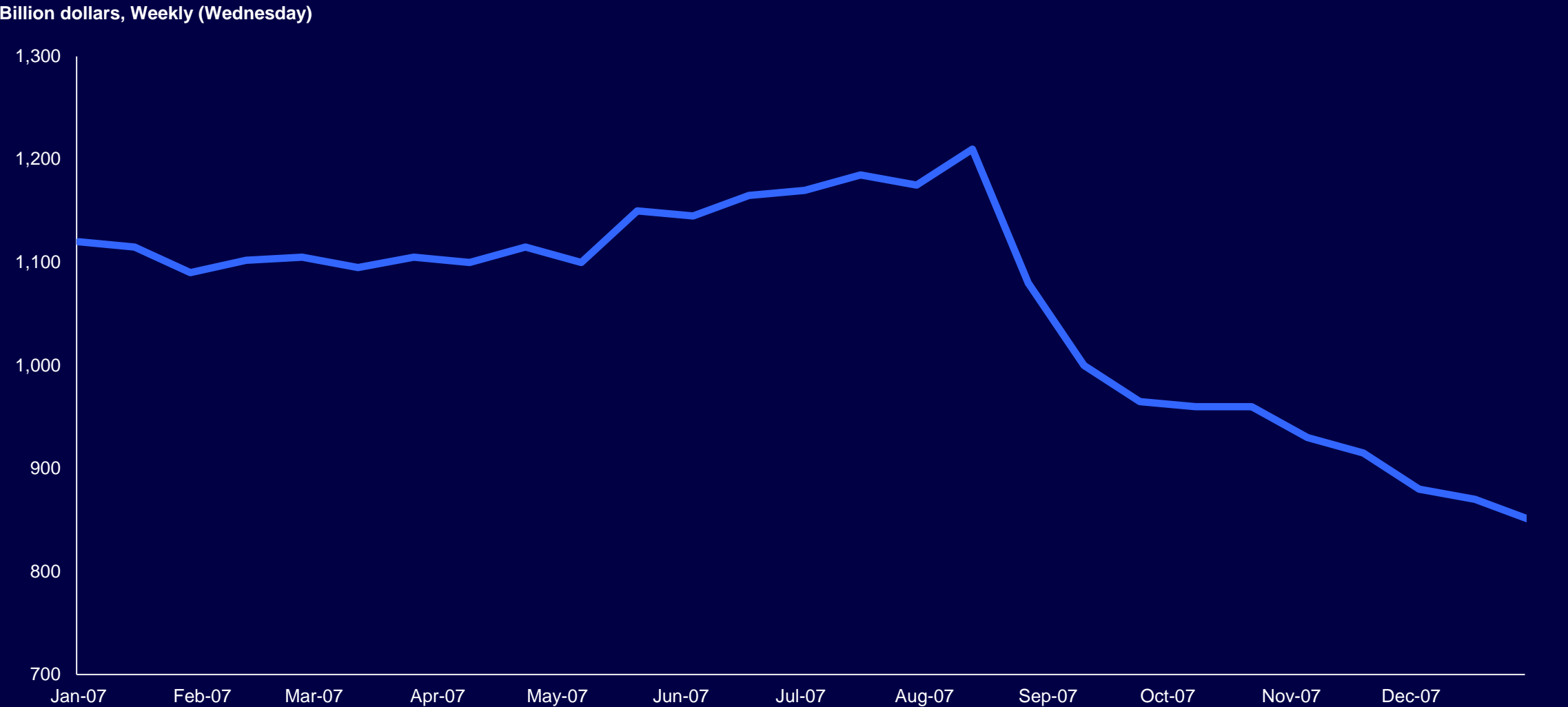
ABCP “Runs”



Source: Covitz, Daniel, Nellie Liang, and Gustavo A Suarez, 2013, The evolution of a financial crisis: Collapse of the asset-backed commercial paper market, The Journal of Finance 68, 815-848.

ABCP Outstanding

ABCP outstanding down \$350 billion from its August 2007 peak



Source: Covitz, Daniel, Nellie Liang, and Gustavo A Suarez, 2013, The evolution of a financial crisis: Collapse of the asset-backed commercial paper market, The Journal of Finance 68, 815-848.

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10 ABCP Runs, Part 2

ABCP “Runs”

Maturity of new issues fell significantly

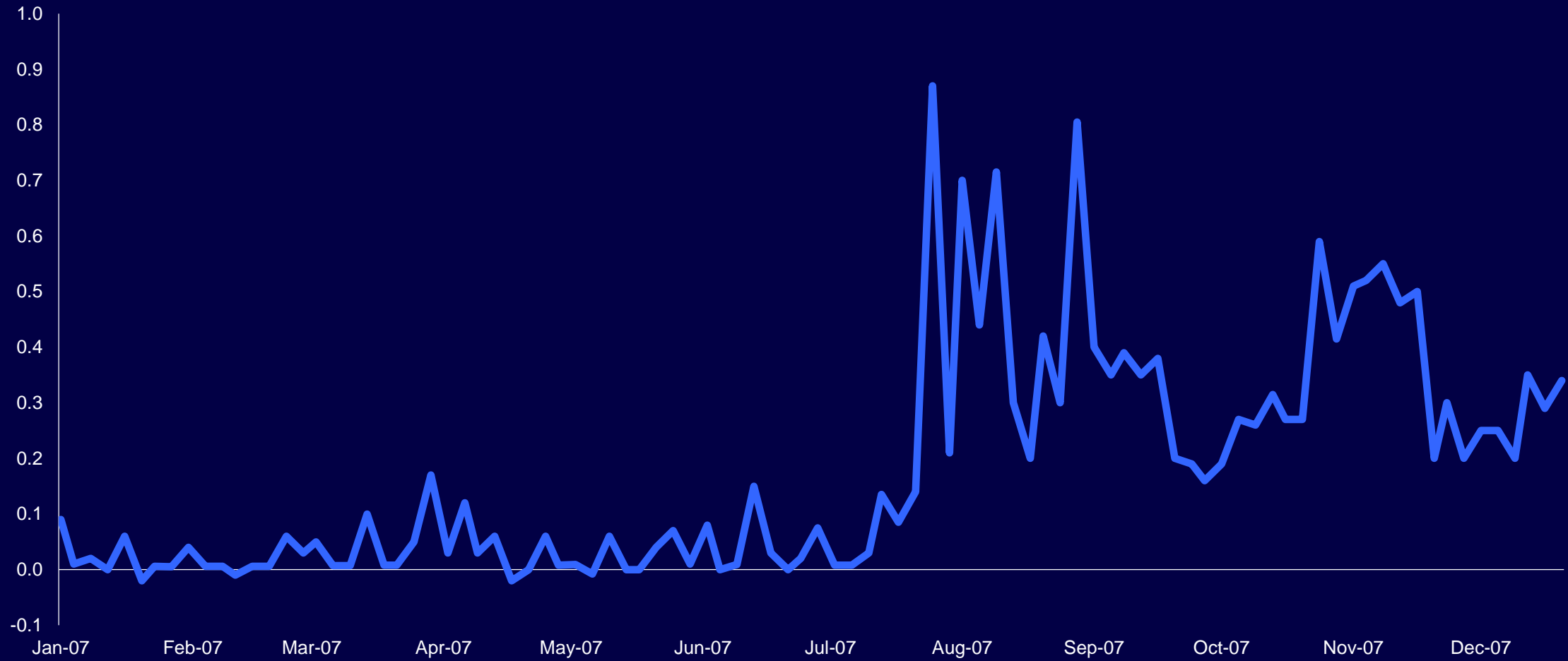


Source: Covitz, Daniel, Nellie Liang, and Gustavo A Suarez, 2013, The evolution of a financial crisis: Collapse of the asset-backed commercial paper market, The Journal of Finance 68, 815-848.

ABCP “Runs”

Even for firms that could issue, risk spreads rose significantly

Percentage Points, Daily



Source: Covitz, Daniel, Nellie Liang, and Gustavo A Suarez, 2013, The evolution of a financial crisis: Collapse of the asset-backed commercial paper market, The Journal of Finance 68, 815-848.

ABCP “Runs”

- 01 By the end of 2007, ABCP outstanding was down about \$350 billion from its August 2007 peak.
- 02 The maturity of new issues also fell significantly.
- 03 Even for programs that were able to issue, risk spreads rose significantly.

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11 Summary

Summary

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- 01** The problems in subprime were clear to all market participants in early 2007.
 - 02** These problems were not expected to infect the whole financial system, but uncertainty about the location of risks led to a spread of anxiety beginning in the middle of 2007.
 - 03** The anxiety is driven by a financial system ill-equipped to analyze risks in seemingly “safe” assets. This sets the stage for a good old-fashioned bank run, but now taking place in the shadow banking markets.