

Singapore Management University

Institutional Knowledge at Singapore Management University

Perspectives@SMU

Centre for Management Practice

3-2019

How sector volatility spills into related markets

Singapore Management University

Follow this and additional works at: <https://ink.library.smu.edu.sg/pers>



Part of the [Business Analytics Commons](#), and the [Finance and Financial Management Commons](#)

Citation

Singapore Management University. How sector volatility spills into related markets. (2019).

Available at: <https://ink.library.smu.edu.sg/pers/498>

This Magazine Article is brought to you for free and open access by the Centre for Management Practice at Institutional Knowledge at Singapore Management University. It has been accepted for inclusion in Perspectives@SMU by an authorized administrator of Institutional Knowledge at Singapore Management University. For more information, please email cherylds@smu.edu.sg.

How sector volatility spills into related markets

29 Mar 2019

This article is republished with permission from [BusinessThink at UNSW Business School](#). You can access the original article [here](#).

Research reveals the linkages that let a meltdown go global

Until the Lehman Brothers collapse a decade ago, it's fair to suggest that most people had probably never heard of credit default swaps (CDS).

Yet these exotic financial instruments – which are basically insurance policies that investors buy to protect against investments such as corporate bonds that go pear-shaped – were pivotal to bringing on the 2008 global financial crisis (GFC).

Of the US\$600 billion in debt that Lehman Brothers owed, about US\$400 billion was covered by CDSs and the meltdown of this unregulated market left the investment bank in tatters and contributed to the collapse of other US firms, such as Bear Stearns and AIG.

In a new paper, Volatility spillovers and connectedness among credit default swap sector indexes, UNSW Business School senior lecturer **Katja Ignatieva** and Auckland University of Technology senior lecturer **José Da Fonseca** shine light on the mysterious world of CDSs and explore the impact they can have on different market sectors during a crisis.

Analysing daily data of CDS spreads for American companies from 2007 to 2012, they provide insights into how volatility spread during the GFC.

Ignatieva and Da Fonseca conclude that the financial sector is the key contributor to overall market volatility, while other sectors such as basic materials, consumer goods and consumer services also play their parts.

During the GFC, despite actions taken to restore bank lending, the shocks affected all sectors through the financial dependencies that exist between them. The authors note that, though the results are "rather intuitive, the difficulty was to illustrate the linkage that allowed the crisis to become global".

According to Ignatieva, it is clear that CDSs can have a significant and cascading impact across many sectors of an economy.

"That's one of the major points of the research – that the markets are basically interrelated," she says.

"If there's instability in the finance sector, stock prices go down, volatility increases and one can expect a recession, which will subsequently impact [on] consumption. Consumption drop, in turn, will result in the demand drop in consumer goods and services, so one would expect increased volatility in these sectors that's been transmitted from the finance sector to other areas."

'STABLE ROCKS'

During crises, market volatility can quickly spin out of control. So from an investor's perspective, it's important to know how volatility will spread and which companies or sectors can provide potentially higher returns or less-risky outcomes.

A clear finding is that the utilities sector is one of the most stable markets. The research shows that shocks reached electric, gas and water firms at a much later stage during the post-GFC crisis period; in turn, demonstrating the lower impact of the crisis on these companies.

"These findings suggest that during the extreme financial distress, utilities companies will potentially provide safer investment strategies," Ignatieva and Da Fonseca say.

Ignatieva adds that volatility shocks typically spread among the sectors in an order that is consistent with sector dependencies. For example, consumer goods and consumer services rely on retail consumption, so they are highly dependent on the overall state of the economy.

"What is also interesting in studying volatilities is that indirect effects are important," she says. "That is, shocks will affect several sectors, hence suggesting the presence of systemic risk."

The results should serve as guidance to investors, Ignatieva believes.

"Those who are risk-loving and trying to maximise their profit should be aware that volatility can be high and the market might crash big time if they invest in, say, the finance sector only."

Stefan Trueck, a professor of finance at Macquarie University and a financial risk expert, says it makes sense that the likes of electricity companies will fare better than most, even in a crisis, because members of the public still have to consume electricity.

"So these utilities companies are almost like stable rocks in some sense," he says.

IF THE PRICE IS RIGHT

Trueck says the findings of Ignatieva and Da Fonseca's paper reaffirm the notion that volatility spillovers stem primarily from the financial sector.

"If we look at the GFC, it was first about the banks being at risk," he notes. "And if you have a banking crisis, that also often means companies are in trouble, as is the economy, so we see that it spreads to other sectors."

However, while studies have repeatedly shown that investors examine variants for the performance of stocks and price that into the market, they may have been less judicious about volatility spillover risks.

"People are worried about spillover risk, but I'm not sure this is adequately priced in financial markets. My opinion is that some market participants probably don't have enough understanding of how that would affect them," Trueck says

He notes that market meltdowns can occur "very unexpectedly", as has been demonstrated courtesy of the GFC and the European debt crisis during the past decade.

"So that's where spillover risk becomes important ... People should think about how it transmits to other sectors and I think that's maybe not considered enough."

Ignatieva agrees that the findings of the research underline the importance of developing a better understanding of volatility spillovers and instruments such as CDSs.

"If you're an investor and you are holding something very risky in the financial sector, you would probably want to diversify your portfolio by investing in companies that are less risky."

CRISES ARE NOT EASY TO PICK

Although many previous studies have analysed volatility, that research has typically been extracted from other assets such as stocks, bonds and foreign exchange rates.

Ignatieva and Da Fonseca are among the first to focus on volatility spillovers from CDS spreads. With an eye to the future, she notes that preventing massive market shifts such as the GFC will always be problematical.

"We're not trying to control volatility," she says. "However, having the knowledge as to how volatility is transmitted across sectors will help investors to form their investment portfolios depending on how risk averse they are."

Is there a role for regulators to dampen the impact of volatility spillover?

Ignatieva concedes that history shows that such crises are not easy to pick, and trying to foresee problems and fix them will always be difficult.

"It would make sense to try to stem this shock somewhere so that it doesn't get transmitted further, but I'm not sure how easy it is to implement," she says.

Trueck adds that regulators and policymakers have typically been reactive in the past and focused on moving to mitigate fallout from crises as much as possible.

"But what regulators need to do is maybe some more forward-thinking approaches. But that's easier said than done because every crisis seems to be different," he says.

Trueck believes preventing flow-on effects from volatility spillover is harder than ever in modern markets because markets are globally interconnected and "we are all investing worldwide and there's electronic trading".

"Unfortunately the message is that it's very difficult to prevent spillover, but what Katja and José's analysis does is to better understand the mechanics and maybe the speed and direction of the spillover. That's why it's a valuable paper."

*Follow us on Twitter (@sgsmuperspectiv) or like us on Facebook
(<https://www.facebook.com/PerspectivesAtSMU>)*