

“Music Sentiment and Stock Returns Around the World”

Edmans, Fernandez-Perez, Garel & Indriawan

*** Forthcoming JFE ***

Discussion by:

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EFA, Virtual

August 26, 2021

Motivation: The role of sentiment in stock returns

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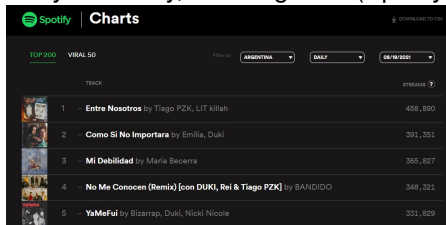
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- ▶ **This paper:** 🎵~🎵~🎵~🎵~🎵~

What does this paper do?



What does this paper do? Empirical results

- Daily & weekly, listening data (Spotify) & music positivity (Echo Nest)

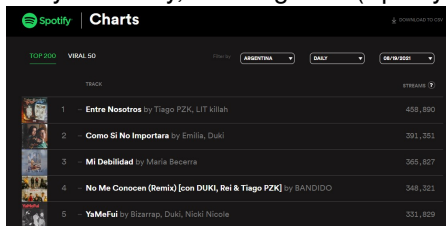


The screenshot shows the Spotify Charts interface for Argentina. The filters are set to 'ARGENTINA', 'DAILY', and '06/18/2021'. The table lists the top 5 tracks with their respective stream counts.

TRACK	STREAMS
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3 - Mi Debilidad by Maria Becerra	365,827
4 - No Me Conocen (Remix) [con DUKI, Rei & Tiago PZK] by BANDIDO	348,321
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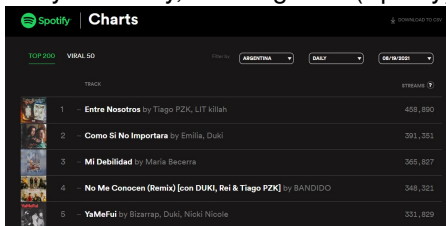
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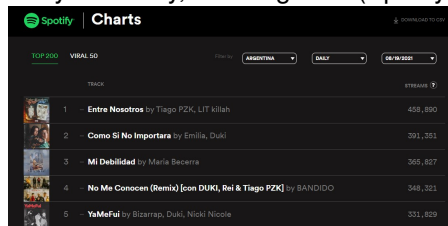
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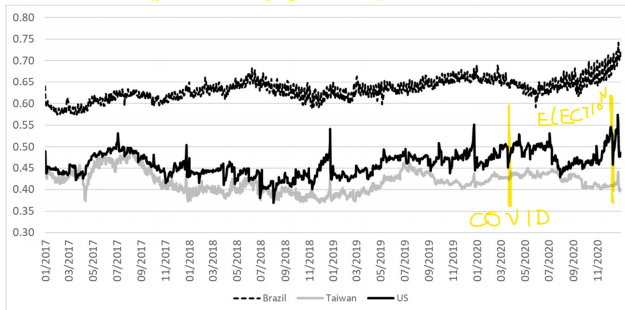
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- ▶ Validate the music sentiment measure given exogenous factors we know should relate to sentiment (seasonal factors, cloud cover, covid cases)
- ▶ Panel evidence, country-weekly evidence: **music valence positively predict contemporaneous stock returns; negatively predict future stock returns** → Consistent with the sentiment-induced temporary mispricing

What I like about this paper:

1. Utilize non-textual information (which is immediately different from the country/market-level linguistic/textual analysis when studying international stock returns)
2. Time series (yellow=my graffiti...)



★ My discussion below: future directions, an asset-pricing perspective

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 - ⇒ **Experiment:** Kuhnen and Knutson (2005); Kuhnen and Knutson (2011); Cohn, Engelmann, Fehr, Marechal (2015); Huang and Xu (2021)
 - ⇒ **Empirical:** Guiso, Sapienza, Zingales (2018); Wang and Young (2020)
 - ⇒ **Structural:** Risk aversion as implied from asset pricing framework seems to have a high-frequency component that cannot be explained by fundamentals Bekaert, Engstrom, Xu (2021); Pflueger, Siriwardane, Sunderam (2020)
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 - ★ **Moody components at best “speculated” in these models** ★
- ▶ In fact, back to **Edmans et al.**’s paper, a risk premium predictor would also predict **opposite signs** when predicting contemporaneous and future stock returns
 - ★ **risk premium may not be as persistent as we think (Van Bingsbergen, 2020)** ★

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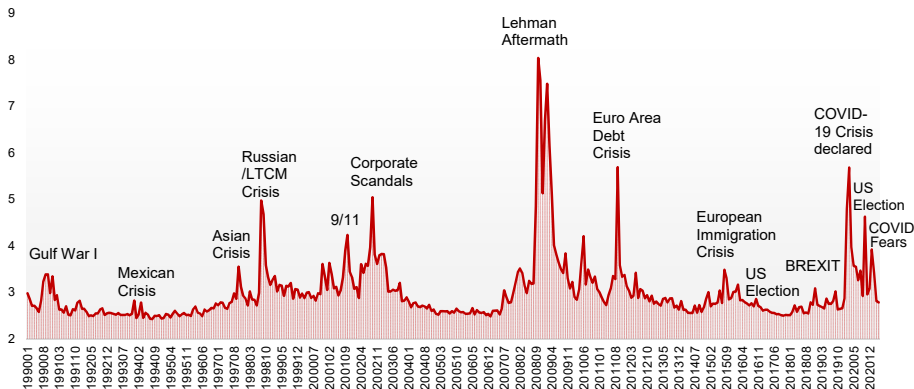
★ **risk premium may not be as persistent as we think (Van Bingsbergen, 2020) ★**

Risk premium shock at t	↑	(bad shock that increases risk premium)
r_t	↓	(price this period goes down)
$E_t(r_{t+1})$	↑	(higher risk premium during bad times)

“Moody” risk aversion

Bekaert-Engstrom-Xu U.S. Risk Aversion Index (1990/01-2021/05)

Unit: relative risk aversion



Obs: seasonal factors may not be so apparent, but covid (out of sample), war, election effects are clearly there as in sentiment measures too.

Source: www.nancyxu.net

	Source	ρ	ρ^{Orth}
	A: Survey-based consumer sentiment		
1	Conference Board consumer confidence	-0.280	-0.186
2	University of Michigan sentiment index, Surveys of Consumers	-0.359	-0.225
3	OECD consumer confidence	-0.427	-0.151
4	Reuter/IPSOS consumer sentiment	-0.526	-0.394
5	Da, Engleberg, and Gao (2014)'s FEARS25	-0.130	-0.104
6	Da, Engleberg, and Gao (2014)'s FEARS30	-0.130	-0.102
	B: Survey-based investor sentiment		
7	Yale "crash" confidence (%believe in no crash)	-0.498	-0.283
8	Yale valuation confidence (%believe the market is not too high)	0.359	0.248
9	AAII bullish percentage	-0.114	-0.070
10	AAII bearish percentage	0.321	0.206
11	Sentix investor sentiment	-0.657	-0.423
	C: Survey-based business sentiment		
12	OECD business confidence	-0.363	-0.225
	D: News-based sentiment		
13	Shapiro, Sudhof, and Wilson (2020)	-0.490	-0.314
	E: Price or macro data-based measures		
14	Baker and Wurgler (2006)'s orthogonalized sentiment	-0.161	-0.142
15	Credit Suisse First Boston Risk Appetite Index	-0.491	-0.282
16	Wachter (2006)'s Habit risk aversion	0.208	0.172

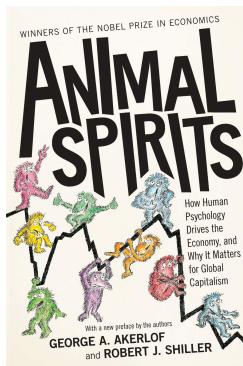
Obs1: Empirically, moderate-high correlation between sentiment and risk aversion, orthogonalized by fundamental shocks or not;

Obs2: Not all sentiment measures correlate highly with risk aversion (**Interesting!** e.g. Da, Engleberg, and Gao's FEARS measures; Baker and Wurgler's measure)

Source: Table 11, Bekaert-Engstrom-Xu (forthcoming)

#2 World-wide mood swings

George Akerlof and Robert Shiller, *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism* (2010)



*“With such contagion around the world, . . . is there any reason to doubt that contagion of stories has economic significance, or that there could be **world-wide fluctuations in animal spirits**?”*

#2 World-wide mood swings

- ▶ A spatially-connected sentiment:
 1. We do observe that, the Spotify lists from similar regions/language speaking/geographic area/propaganda schemes are very close (Canada list and US list have exactly the same top 20 songs).
 - ★ Culture? Social connectedness?★

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★ (Un)Familiarity exacerbates bad mood propagation? Non-lab evidence with heterogeneous distances?★
- ▶ Why important? Gain insights of how mood/emotion may comove at all → various puzzling phenomena of asset return comovements (not just time series, but also cross asset classes, say bitcoin and stock markets), which by far the asset pricing literature still could not fully explain

Conclusion

- ▶ **I highly recommend this paper!**
- ▶ **#1** In asset pricing, risk aversion is often a “filler” word for a lot of concepts, including sentiment. However, work has shown their closeness.
Why important – Examine further why some sentiment measures do correlate with risk aversion, but some do not (e.g., mood-, confidence-, trade-, or attention-induced)?
- ▶ **#2** To what extent, do these “moody” channels (cultural, music, social, familiarity) contribute to the world-wide comovement in asset prices?
Why important – Potential policy/investment implications.

Thank You!

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