Slow Food, Fast Markets: The Long Clock of Restaurant Equity

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The Conceptual Problem

Some companies move through long **corporate cycles**.

Mourdoukoutas & Stefanidis (2023) argue a downshift can be one of three things:

Temporary	**Permanent**	**Fatal**
the firm repairs the failing function and recovers	decline is real but not fatal	failure spreads across functions; the firm dies
(Apple, IBM, Corning)	*(Xerox, Cisco)*	*(Kodak, Enron)*

These cycles run for **years**. Markets evaluate them on **quarters**.

Market short-termism has been measured as *excess discounting* (Miles, 1993; Haldane & Davies, 2011).

The **realization horizon** of a corporate cycle - how long value takes to reach returns - has not.

The Underlying Problem

Restaurants run on long cycles:

- Franchise contracts: 10–20 years
- Real estate leases: 10–15 years
- Brand-building cycles: multi-year
- Refranchising programs: 2–4 years

Market pricing is fast:

- Quarterly earnings cycle
- 1–2 year analyst forecasts
- 3–5 year executive comp windows
- High-frequency trading, momentum

Long-cycle operations get priced on short-cycle expectations.

If value is created on a long clock but priced on a short one, that gap should be **measurable**.

Where the Mismatch is Sharpest

Where should a **short**-clock market go most wrong?

Not in steady times, but during **downshifts**,
when the type of decline is hardest to read.

Distress is where a long realization horizon and short market pricing diverge most sharply.

The Expectation to Beat

What should happen to a firm whose fundamentals are deteriorating?

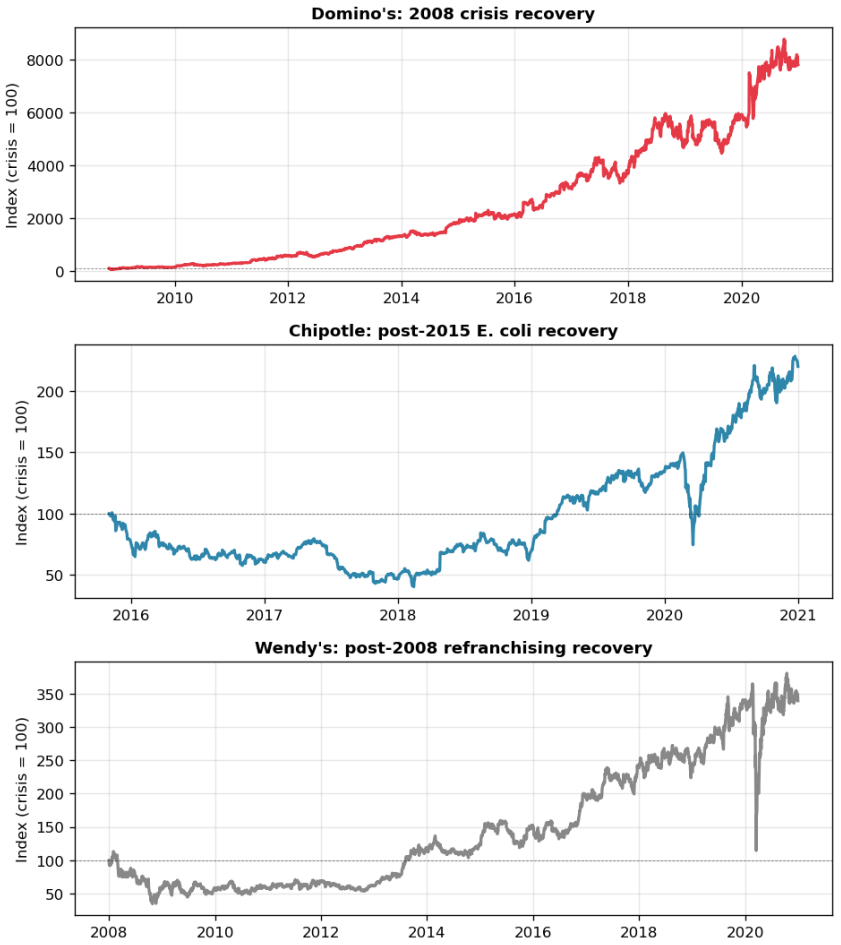
The literature's answer: market-wide, firms sliding toward **failure** earn **low** subsequent returns (Campbell, Hilscher & Szilagyi, 2008).

In restaurants distress is different: declining economic profit is usually a temporary downshift.

Cases

Some chains looked finished — then recovered:

- **Domino's, 2008:** shares under $3, brand in crisis. By 2017, above $200.
- **Chipotle, 2015:** E. coli outbreak nearly halved the stock — then a strong rebound.
- **Wendy's, late 2000s:** written off by analysts; refranchised, recovered, outperformed.



Research Questions

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- **RQ1 (The standard test).** Tested *contemporaneously* — this year's EVA against this year's value — does EVA matter?
- **RQ2 (Distress).** For firms whose EVA is deteriorating, what happens to returns over the next few years?
- **RQ3 (The full horizon).** How long is the horizon over which EVA growth and shareholder-return growth align?

What We Find

1. On the standard test, EVA looks weak *(full panel)*

We replicate Kim (2006) exactly: tested contemporaneously, EVA barely helps explain value.

2. At a multi-year horizon, EVA comes alive *(full panel)*

Firms with declining EVA go on to earn **positive** subsequent excess returns, peaking at **3–4 years** — EVA predicts returns, just not *contemporaneous* returns.

Consistent with residual-income predictability at 1–3-year horizons (Frankel & Lee, 1998; Ali, Hwang & Trombley, 2003) and with long-horizon EVA–TSR evidence in Australia (Chen, Jin & Qin, 2023).

Sample and Data

- **Sample:** 34 publicly traded U.S. restaurant firms (joint screen: SIC 5810/5812/5813, GICS 25301040, NAICS 7225) — restaurants only, not hotels/casinos/cruises.
- **Period:** 2000–2024 (annual data)
- **Sources:** Compustat (accounting), CRSP (returns)
- **Survivorship-corrected:** retains the 9 firms that delisted 2017–2024 (e.g. Panera, Buffalo Wild Wings, Sonic, Dunkin') for the years they traded

EVA $=$ NOPAT $-$ WACC $\times$ Invested Capital — the profit left *after* paying for the capital used.

Key variables computed:

- Economic Value Added (EVA) at firm-year level
- NOPAT, invested capital, WACC
- Total Shareholder Return (TSR) CAGR over rolling windows
- Current Operations Value (COV) and Future Growth Value (FGV)

Includes McDonald's, Yum! Brands, Starbucks, Chipotle, Domino's, Wendy's, Shake Shack, Wingstop, and others.

How We Test It

Does EVA matter — and does the answer depend on the horizon?

1. **The standard test** — same year
   This year's EVA against this year's value — Kim's (2006) exact setup, on our sample.

2. **Distress** — the main result; 2–7 years ahead
   When a firm's EVA worsens: how does the market *react*, and what do returns *actually do* next?

3. **The full horizon** — bonus; COVID-identified
   How many years until EVA growth and shareholder-return growth line up?

The Standard Test

Question: tested the usual way, does EVA explain a firm's value?

- We reproduce Kim's (2006) exact setup on our restaurant sample.
- Regress a firm's **market value** on its **EVA** — alongside NOPAT and free cash flow, each scaled by capital.
- Everything measured in the **same year**: this year's EVA against this year's value.

$$\frac{V_{it}}{C_{it}} = \alpha + \beta \frac{EVA_{it}}{C_{it}} + \gamma \frac{NOPAT_{it}}{C_{it}} + \delta \frac{FCF_{it}}{C_{it}} + \varepsilon_{it}$$

The Standard Test Says EVA Doesn't Matter

Hospitality finance tested EVA contemporaneously — and found it weak. Kim (2006); Lee & Kim (2009): marginal explanatory power, plus an unexplained *negative* EVA coefficient.

We replicate Kim's exact specification on our sample (627 firm-years $\approx$ his 623):

	Kim (2006)	**Our sample**
Univariate adj. R^2: EVA/Capital	0.103	0.439
Univariate adj. R^2: NOPAT/Capital	0.169	0.460
Incremental ΔR^2 (EVA)†	**0.015**	**0.004**
EVA coeff. (multivariate)	$+0.137$	-10.45

- R^2 *levels* differ — different sample and period. The **pattern** is identical: trivial incremental content.
- **On the standard test, EVA looks dead.**

$^\dagger \Delta R^2$ on unadjusted R^2, as reported by Kim (2006, Table 3: 0.229 $\rightarrow$ 0.243); ours 0.466 $\rightarrow$ 0.470.

Distress: How We Test It

Question: when a firm's EVA *worsens*, what does the market expect, and what actually happens next?

Step 1 — split firm value into two parts. A firm's value = what current operations are worth if nothing ever changes (**COV**) + what the market pays for expected growth (**FGV**). When EVA moves, ΔFGV reads out how much the market *revised its expectations*.

$$\underbrace{COV_{it}}_{\text{steady state}} = IC_{it} + \frac{EVA_{it}}{WACC_{it}}; \qquad \underbrace{FGV_{it}}_{\text{growth expected}} = EV_{it} - COV_{it}$$

Step 2 — for EVA improvements (+) vs. deteriorations (−), estimate:

$$\frac{\Delta FGV_{it}}{IC_{it}} \text{ and } R^{ex}_{i,\,t\to t+H} = \alpha + \beta^{+}\Delta EVA^{+}_{it} + \beta^{-}\Delta EVA^{-}_{it} + \varepsilon$$

- $\beta^{\pm}_{FGV}$: does the market **revise expectations** when EVA moves?
- β^{-}_{R} at $H = 2, \ldots, 7$: what do **actual returns** do next?

Benchmark: the distress literature predicts these firms earn *low* returns (Campbell, Hilscher & Szilagyi, 2008).

The Market Looks Through Distress, and Underrates It

We track the same firms twice: how the market reacts when their EVA worsens, and what their returns actually do next.

1. The reaction: a shrug.

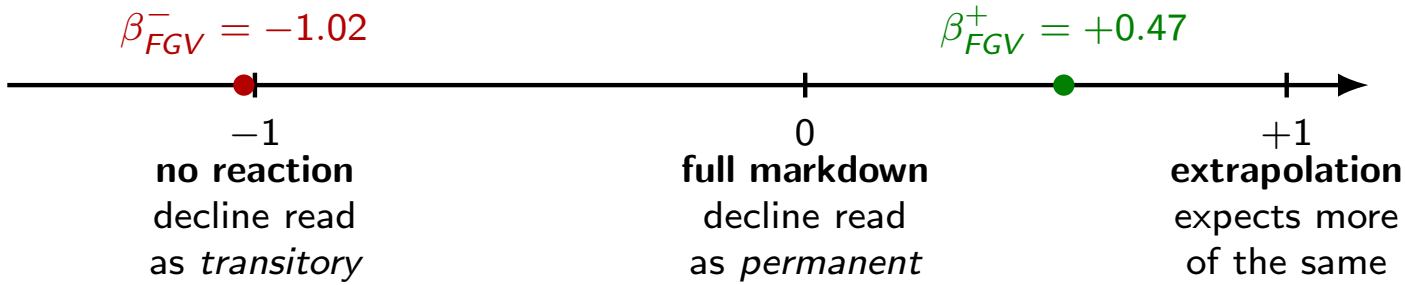
EVA *improves*: the market extrapolates ($\beta^{+}_{FGV} = +0.47$).

EVA *worsens*: firm value barely moves ($\beta^{-}_{FGV} = -1.02$ — on the no-reaction mark[†]).

2. What happens next: they beat.

The same deteriorating-EVA firms earn *positive* excess returns at **every** horizon $H = 2$–7, peaking at $\beta^{-}_{R} = +0.11$ at 4 years ($p < 0.001$).

Right that distress is temporary — not optimistic *enough*.



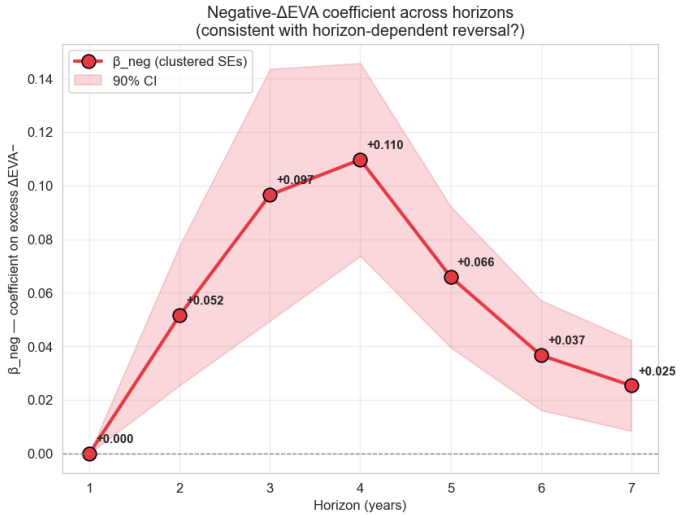
[†] $FGV = EV - COV$, and COV contains capitalized EVA: a decline that leaves firm value *unchanged* passes one-for-one (opposite sign) into FGV, so the mechanical no-response benchmark is $\beta^{-}_{FGV} = -1$, not 0 (ΔEVA in capitalized units; derivation in backup). Asymmetric ±EVA capitalization in *levels*: O'Byrne (1996).

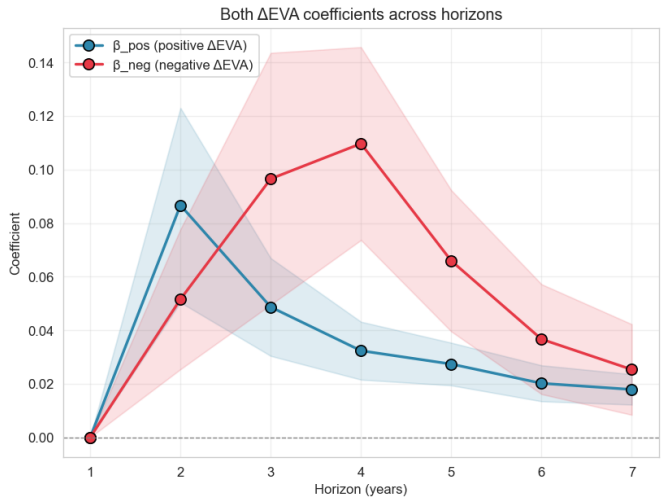
The Outperformance Peaks at 3–4 Years

β_R^- across horizons $H = 2$ to 7:

Horizon	β_R^-	p
2 years	$+0.052$	0.001
3 years	$+0.097$	0.001
4 years	$\mathbf{+0.110}$	$\mathbf{< 0.001}$
5 years	$+0.066$	< 0.001
6 years	$+0.037$	0.003
7 years	$+0.025$	0.014

- Inverted-U: the association peaks at $H = 4$.
- Matches the documented timescale of restaurant restructuring.
- Decays at long horizons as recovery is priced in.





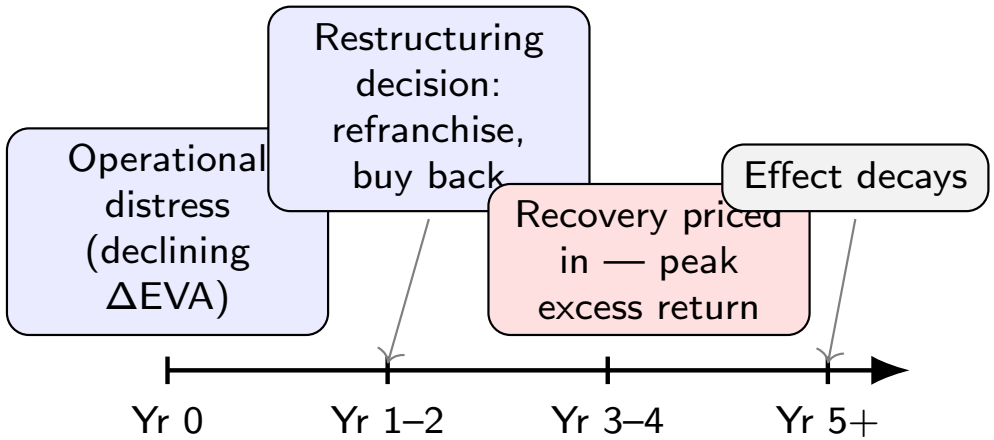
Mechanism: Value-Creating Restructuring

Why might operational distress precede positive returns at 3–4 years? Gillis & Combs (2023):

- Event study, 205 announcements, 2001–2020
- Refranchising and buybacks ⇒ **positive** abnormal returns
- Effect **stronger for low-ROA firms** (the distressed ones)

Our finding seems to be connected:

- Declining ΔEVA precedes the restructuring decision
- 3–4 year horizon matches refranchising program duration



Everything So Far

The puzzle and its resolution used the **entire 2000–2024 panel**.
EVA looks weak contemporaneously —
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So EVA does matter.

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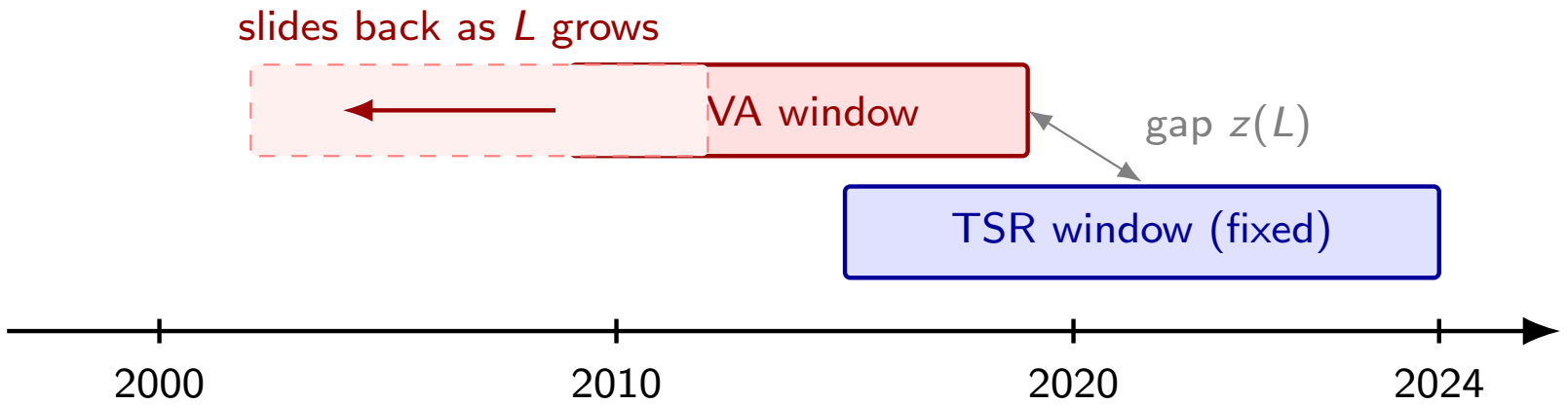
Bonus — visible because of COVID:
when a large shock pries returns apart from fundamentals,
how long is the lag at which the two realign?

The Full Horizon: How We Measure It

Question: how many years apart are value creation and shareholder returns?

- Fix the **TSR window** (2015–2024). Measure the gap z between TSR growth and EVA growth.
- Slide the **EVA window** back in time, lag by lag, and watch the gap.
- The lag $\hat{H}$ at which the gap **closes** is the horizon estimate.



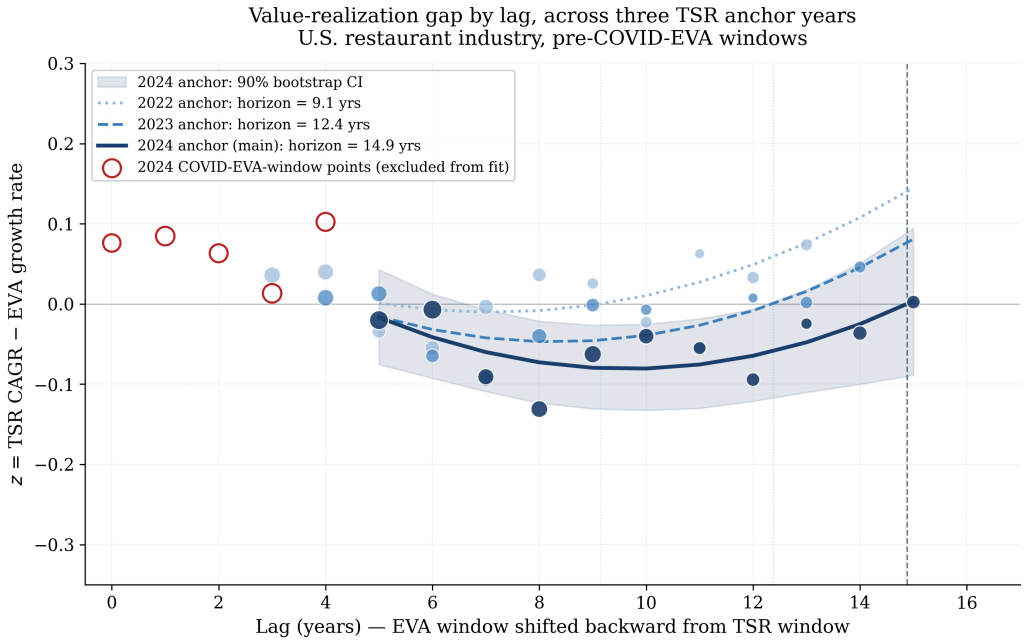
$$z_i(L) = g_i^{TSR} - g_i^{EVA}(L) = \alpha + \beta_1 L + \beta_2 L^2 + \varepsilon; \qquad \hat{H}: \; z(\hat{H}) = 0$$

The lag at which the two growth rates line up on average.

The Full Horizon Runs to About 14 Years

The lag at which the EVA-growth / TSR-growth gap closes:

- Main specification: ≈ 14.2 years
- 90% bootstrap CI: [12.2, 17.5]
- Post-COVID anchors: point estimates 8.9y (2022), 12.1y (2023), 14.2y (2024)
- The three confidence intervals **overlap at 12–15 years**

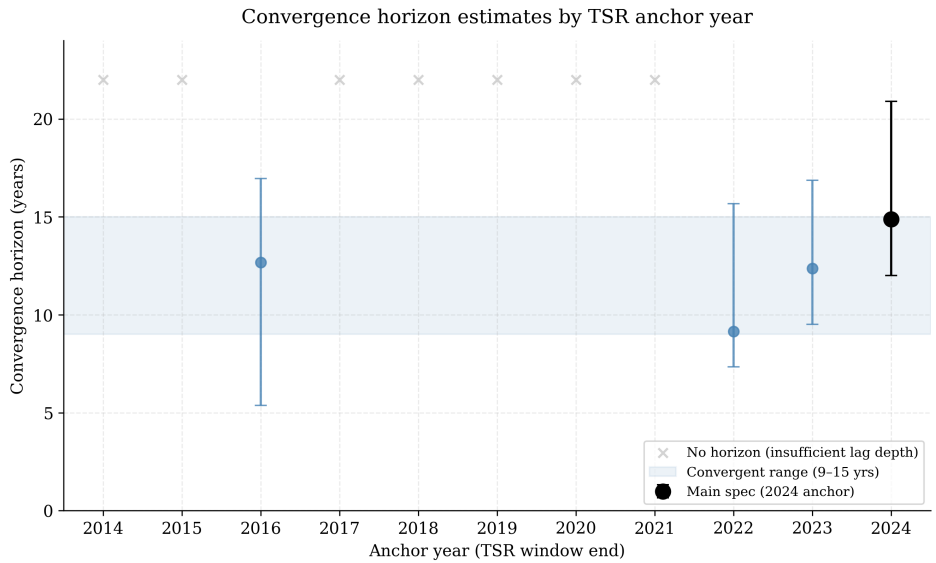


Bonus — Robustness Across EVA Windows

Horizon across EVA windows:

EVA window	Horizon (yrs)
5-year	16.5
8-year	14.6
10-year (main)	14.2
12-year	13.0

All four specifications produce valid estimates in a 13.0–16.5 year band, with overlapping confidence intervals in the 12–16 year range.



Bonus: An Industry Clock, Not a Firm Clock

Six firm-level features tested. None produces a statistically distinguishable horizon.

Characteristic	High cohort	Low cohort	90% CI of difference
Firm size	13.6	14.8	[−5.5, +6.7]
Lease duration	15.7	14.4	[−7.8, +10.2]
Franchise intensity	14.0	12.8	[−4.7, +2.9]
Capital intensity	12.8	13.8	[−4.6, +4.2]
Profitability (ROIC)	13.6	–†	[−5.8, +7.3]
EVA persistence (AR1)	14.0	15.3	[−4.3, +7.4]

- All cohort point estimates fall in a tight **12.8–15.7 year** band.

Concluding Remarks

- Tested *contemporaneously*, EVA looks weak — we reproduce Kim (2006) on the full panel.
- At *multi-year* horizons, EVA comes alive: firms with deteriorating EVA are barely marked down ($\beta^{-}_{FGV} \approx -1$), yet outperform, peaking at 3–4 years — consistent with value-creating restructuring.
- **Bonus:** the full EVA–TSR alignment horizon is on the order of $\sim$14 years (identified off the COVID drawdown; stable across windows, invariant across firm types).

This Is the First Step

Mourdoukoutas & Stefanidis (2023) describe corporate cycles *conceptually*. This paper is a first attempt to **measure** one piece. The agenda is to operationalize the framework empirically.

What this paper establishes

- A long realization clock exists and is measurable (in one industry)
- Distress is often a *temporary* downshift — the market underrates the recovery
- The evaluation–realization mismatch is quantifiable

Toward a fuller test

- **Classify downshifts** by type: temporary vs. permanent vs. fatal — do markets misprice each differently?
- **Operationalize the three functions** (entrepreneurial, managerial, social) with measurable proxies
- **Spillover effects**: does failure in one function predict failure in the others?
- **Across industries**: does the clock track cycle length?

Thank You

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Comments are welcome.

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