Tax Migration as Social Contagion: A Tipping-Point Model with Application to the Scandinavian Wealth Tax Debate

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Abstract

Blandhol (2025) estimates that wealth-tax-induced emigration from Norway reduces long-run GDP by 1.3%. Dansk Industri scaled this figure to argue that a Danish wealth tax would cost billions—a claim central to the 2026 Danish election campaign. We develop a social contagion model in which the emigration rate depends on a visibility-weighted fraction of prior emigrants, producing tipping-point dynamics. Embedding the model in the Fokker–Planck framework for wealth distributions, we show that the micro-to-macro extrapolation underlying the 1.3% figure requires five identification conditions to hold simultaneously—each of which is violated. Using a panel of the 400 wealthiest Norwegians (2011–2025), we estimate the Pareto tail exponent ($\hat{\alpha} \approx 1.3$, stable across years), identify the emigrants within Blandhol's sample window (2016–2020), and document a hidden channel of heir-emigration—36 recent cases carrying approximately 127 bn NOK—invisible in the panel data because controlling owners retain their A-shares while heirs emigrate with economic exposure only. The event-study sample is dominated by passive wealth-holders with near-zero productivity haircuts, and the wealth-weighted integral that determines the GDP effect is controlled by individuals entirely absent from the sample. The Norwegian emigration wave is a non-scalable, path-dependent tipping event, not a smooth elasticity.

Keywords: Wealth tax, tax migration, social contagion, tipping point, Fokker–Planck equation, Pareto distribution, Norway, Denmark.

JEL codes: H21, H24, H31, D31, F22.

Contents

Notation

The following table summarises the principal symbols. Symbols marked † are specific to the contagion model developed in this paper; the remainder follow the conventions of the companion papers (Frøseth, 2026b,d,c).

Symbol	Description	Eq.
Contagion model		
$n(t)$	Emigrant fraction of the ultra-wealthy population†	(1)
$\tilde{n}(t)$	Visibility-weighted emigrant fraction†	(5)
$\lambda(\tilde{n}, t)$	Effective emigration rate†	(2)
$\lambda_0(t)$	Baseline emigration rate (tax + regime)†	(3)
ρ	Return migration rate†	(1)
κ	Contagion strength†	(4)
$\Phi(\tilde{n})$	Social contagion multiplier, $\Phi = e^{\kappa\tilde{n}}$†	(4)
ξ	Visibility (celebrity-effect) exponent†	(5)
ℓ	Total non-contagion push rate, $\ell = \lambda_0(1 + \vartheta\, p)$†	(7)
ϑ	Exit-tax anticipation parameter†	(2)
γ	Sensitivity to reference-dependent tax changes†	(3)
δ_h	Sensitivity to policy-regime hostility†	(3)
$h(t)$	Policy hostility index†	(3)
$p(t)$	Subjective exit-tax probability†	(2)
η_i	Productivity haircut of emigrant i†	(26)
ω_i	Capital share of emigrant i†	(26)
Fokker–Planck framework (companion papers)		
W, $x = \ln W$	Wealth and log-wealth	(14)
μ, σ	Drift and volatility of wealth returns	(14)
$v = \mu - \sigma^2/2$	Drift in log-wealth	(15)
$D = \sigma^2/2$	Diffusion coefficient	(16)
τ_w	Wealth tax rate	(3)
δ	Demographic turnover rate	(20)
$\phi(x)$	Entrant (newborn) distribution	(20)
ζ (α)	Pareto tail exponent	(21)
Λ, $t_{1/2}$	Spectral gap; relaxation half-life	(22)
θ	Book-to-market ratio	—
β	Statutory assessment fraction	(18)
α_K	Capital share in production	(26)

1 Introduction

In March 2026, wealth taxation became one of the most contentious issues of the Danish general election. The Social Democrats proposed a 0.5% annual tax on net wealth above 25M DKK for single taxpayers (50M DKK for couples), estimated to affect approximately 22 000 taxpayers and raise 6–7 billion DKK per year. Enhedslisten and SF put forward broader variants; Fagbevægelsens Hovedorganisation (FH) endorsed the principle. Opponents, led by Dansk Industri (DI), argued that such a tax would trigger capital flight and reduce Danish GDP by billions.

The empirical foundation for the opposition's case is a single study. Blandhol (2025), in a Princeton job-market paper, exploits the 2022 increase in the Norwegian wealth tax rate to estimate a dynamic event-study specification showing a 12.6% average revenue decline in firms whose owners emigrate. Through a structural model, she extrapolates this to a long-run GDP loss of 1.3%. The DI analysis (Dansk Industri, 2026) scales the Norwegian estimate to Danish conditions by comparing the ratio of proposed Danish wealth tax revenue to GDP with the corresponding Norwegian ratio, yielding projected annual GDP losses of 11–28 billion DKK depending on the proposal—multiples of the expected revenue.

This linear cross-country scaling rests on five identification conditions (Section 7.5), each of which we show to be violated.

We develop a model of tax-motivated emigration as a social contagion process. The emigration rate depends not only on the tax differential but on a visibility-weighted fraction of prior emigrants (the "celebrity effect"), on reference-dependent felt tax pressure, on policy regime hostility, and on exit-tax anticipation. The resulting scalar ODE admits a saddle-node bifurcation: when the contagion strength exceeds a critical threshold ($\kappa \geq 4$), two stable equilibria coexist for an interval of push rates and the system can tip discontinuously from one to the other. The Norwegian 2022 episode—in which the emigration rate jumped from 0.2% to over 2%—is consistent with such a tipping event, not with a smooth elasticity.

Our focus on the migration channel is deliberate. Brülhart et al. (2022) decompose the Swiss wealth tax response into three components: taxpayer migration (∼24%), capitalisation into housing prices (∼21%), and evasion or avoidance (∼55%). The present paper isolates the first channel, because it is the component most sensitive to contagion dynamics and the one through which the Blandhol GDP-loss argument operates. We take no stance on the total wealth-tax elasticity; the object of interest is the contagion-driven migration component alone.

To assess the empirical validity of the GDP scaling, we construct a panel of the 400 wealthiest Norwegians over 2011–2025 from the annual Kapital 400 list. The data allow us to estimate the Pareto tail exponent directly ($\hat{\alpha} \approx 1.3$, remarkably stable across years), to identify which ultra-wealthy individuals actually emigrated during Blandhol's 2016–2020 sample window, and to classify them by the nature of their wealth (active control versus passive holdings). The findings are stark: only seven Kapital 400 members emigrated during the window, only one ran a domestic operating business, and none of the top emigrant fortunes—which dominate the wealth-weighted GDP integral—are represented in the event-study sample.

The paper embeds these findings in the Fokker–Planck framework for wealth distributions developed in three companion papers (Frøseth, 2026b,d,c). The key results from that framework—the drift-shift symmetry of proportional wealth taxation, the Pareto tail exponent, the spectral gap determining relaxation timescales, and the classification of migration as a permeable-boundary leakage channel—are summarised self-containedly in Section 5 and applied throughout.

The paper proceeds as follows. Section 2 sets out six stylized facts that motivate the contagion model. Section 3 develops the model and Section 4 derives the tipping-point condition. Section 5 provides the Fokker–Planck foundation. Section 6 presents the empirical evidence from the Kapital 400 panel. Section 7 uses the framework and data to expose five identification failures in the micro-to-macro extrapolation. Section 8 calibrates the identifiable parameters and is explicit about what the data cannot pin down. Section 9 draws implications for the Danish debate, and Section 10 concludes.

2 Stylized facts

The Norwegian wealth tax emigration episode (2022–) and comparable episodes elsewhere suggest that tax migration among the ultra-wealthy is not well described by independent, rational cost–benefit calculations. The following stylized facts motivate the model.

These facts find direct empirical support both within and outside Norway. Iacono and Smedsvik (2024) exploit the Bø municipality experiment—a single Norwegian municipality unilaterally reduced its municipal wealth tax component from 0.85% to 0.35% in 2021—and find that taxpayer mobility accounts for roughly 79% of the resulting increase in local taxable wealth. This is a within-Norway proof of concept for the mobility margin at a modest rate differential. The United States contrast is instructive: Young et al. (2016) document that millionaire interstate migration averages just 2.4% per year—below the general population rate of 2.9%—despite several states levying no income tax. The explanation they advance is *embeddedness*: location-specific social capital, business ties, family attachments, and lifecycle constraints impose frictions that dominate plausible tax

F	Stylized fact
F1	**Social contagion / "Keeping up with the Joneses."** The propensity to emigrate depends on what peers have done. High-profile first movers lower the social cost and raise the perceived status of emigration. The influence of an individual departure scales with the emigrant's visibility (wealth, media profile), not just with the head count. The mechanism echoes Abel (1990): utility depends on one's position relative to a social benchmark, here the emigration decisions of visible peers.
F2	**Reference-dependent tax pressure.** The emigration response depends on *changes* in tax levels relative to a reference point, not on the absolute level. A recent increase triggers a larger response than the same level held for decades. This is the core prediction of prospect theory (Kahneman and Tversky, 1979): outcomes are evaluated as deviations from a reference point, and losses (tax increases) loom larger than equivalent gains.
F3	**Policy regime hostility.** The propensity to emigrate responds to the *overall* policy environment towards wealthy capital owners—rhetoric, proposed reforms, political signals—beyond any single tax parameter. The 2021 Norwegian government change was perceived as a regime shift.
F4	**Exit tax anticipation and the crystallisation motive.** Expectations of stricter exit taxes create a rush-for-the-door effect: agents who might have emigrated gradually accelerate their departure to avoid being locked in. The motive is amplified when emigrants hold large deferred tax liabilities inside holding structures (via participation exemptions such as the Norwegian *fritaksmetoden*): emigration before the exit tax window closes allows crystallising these gains under a more favourable regime. The Norwegian five-year lapse rule—abolished 29 November 2022—made this crystallisation opportunity concrete and time-limited. The expectations-based reference point of Kőszegi and Rabin (2006) is directly applicable: the anticipated future tax regime—not just the current one—shapes the perceived loss from staying.
F5	**Wealth–control separation.** Most emigrating wealth is *passive*: heirs receive B-shares (economic exposure, dividends) while the controlling owner retains A-shares (voting rights, strategic control) and professional management remains domestic. Among the 36 recent heir-emigrants identified from Kapital 400 and Kapital 300 families (Section 6.4), the combined inherited wealth is approximately 127 bn NOK; in every case the controlling parent or grandparent continued to reside in Norway and manage the enterprise. The "productivity haircut" is near zero for this category.
F6	**Tipping dynamics.** Emigration rates can jump discontinuously (0.2% to $>$ 2% in Norway) and cluster geographically in Swiss low-tax locations (Lugano, Zug, Schwyz, municipalities in Kanton Zürich), while higher-tax Geneva is largely avoided. Some emigrants maintain business offices in Stadt Zürich—or even reside there, trading tax minimisation for urban amenities—but the dominant pattern favours low-tax cantons, consistent with a phase transition rather than a smooth elasticity.

Table 1: Stylized facts motivating the contagion model.

savings. The contrast matters for interpretation. F1–F6 are not universal; they describe a regime that becomes salient only when embeddedness frictions are weak, or when a focal shock (F3, F4) overrides them. The Nordic ultra-wealthy—geographically mobile, highly networked, and facing a policy shock bundled with an exit-tax deadline—appear to fall squarely into that regime.

3 The model

3.1 Emigrant fraction dynamics

Let $n(t) \in [0, 1]$ denote the fraction of the ultra-wealthy population that has emigrated. We model the emigrant fraction as a scalar ODE:

$$\boxed{\dot{n} = \underbrace{\lambda(\tilde{n}, t)}_{\text{push rate}} \cdot (1 - n) - \underbrace{\rho}_{\text{return rate}} \cdot n \,,} \tag{1}$$

where $1 - n$ is the resident fraction, $\rho > 0$ is the (constant) return migration rate, and λ is the *effective emigration rate* specified below. The factor $(1 - n)$ ensures that emigration depletes the resident pool.

This is a reduced model. It arises from the full coupled Fokker–Planck system under a separation-of-scales assumption: wealth distributions equilibrate fast relative to migration dynamics, so the migration decision can be studied as a scalar ODE for the aggregate emigrant fraction (the derivation is given in Section 5.4).

3.2 The effective emigration rate

The emigration rate has four multiplicative components, each capturing one stylized fact:

$$\lambda(\tilde{n}, t) = \underbrace{\lambda_0(t)}_{\substack{\text{baseline:}\\ \text{tax + regime}}} \cdot \underbrace{\Phi(\tilde{n})}_{\substack{\text{social}\\ \text{contagion}}} \cdot \underbrace{(1 + \vartheta\, p(t))}_{\substack{\text{exit-tax}\\ \text{anticipation}}} . \tag{2}$$

Baseline rate (F2 + F3). The baseline rate captures both the tax motive and the policy environment:

$$\lambda_0(t) = \bar{\lambda} \left(\tau_w(t) - \tau_w^* + \gamma\, \Delta\tau_w\right) \cdot (1 + \delta_h\, h(t)) \,, \tag{3}$$

where $\tau_w(t)$ is the statutory wealth tax rate, τ_w^* the foreign rate, $\Delta\tau_w = [\tau_w(t) - \tau_w(t - \Delta)]^+$ the recent tax increase (reference dependence, F2), and $h(t) \in [0, 1]$ the policy hostility index (F3). The $\Delta\tau_w$ term is the prospect-theoretic channel: agents evaluate the tax burden as a deviation from a reference point (the prior rate), and the asymmetric response to increases versus stable levels reflects loss aversion (Kahneman and Tversky, 1979). The parameters $\gamma > 0$ and $\delta_h > 0$ govern the sensitivity to tax changes and regime hostility, respectively. The normalisation constant $\bar{\lambda}$ converts tax differentials into an emigration rate.

Note on the effective tax differential. The model uses the wealth tax rate τ_w as the driving variable, but the true tax differential motivating emigration is a composite of wealth tax, deferred capital gains tax (accumulated inside holding structures via participation exemptions), dividend tax, and exit-tax rules. This composite enters the model through the calibration of $\bar{\lambda}$: a high $\bar{\lambda}$ reflects a setting where multiple tax channels reinforce the emigration incentive, as in Norway. This matters for cross-country extrapolation: if $\bar{\lambda}$ is estimated from Norwegian data where the composite burden is high, applying it to Denmark—where the wealth tax would be new and no comparable deferral overhang exists—overstates the baseline emigration rate.

Social contagion (F1). The social multiplier amplifies the baseline rate as more agents emigrate:

$$\Phi(\tilde{n}) = e^{\kappa \tilde{n}}, \tag{4}$$

where $\kappa > 0$ is the contagion strength. The exponential form has three motivations. First, it is the *hazard-rate* specification standard in epidemiology (see Hethcote, 2000, for a survey): each additional emigrant adds a constant κ to the log-emigration rate, so that $\ln \Phi = \kappa \tilde{n}$. Second, it nests the linear approximation $\Phi \approx 1 + \kappa \tilde{n}$ for small emigrant fractions $\tilde{n} \ll 1/\kappa$ but generates the nonlinear positive feedback needed for tipping when $\tilde{n}$ is large (as we show in Section 4.1, the linear form cannot produce bistability). Third, the exponential form connects to threshold models of collective behaviour (Granovetter, 1978; Schelling, 1971). Suppose each individual i emigrates if and only if $\tilde{n}$ exceeds a personal threshold θ_i drawn from an exponential distribution with rate κ. The exponential distribution has a constant hazard rate: among those who have not yet emigrated, each marginal increase in $\tilde{n}$ converts a fixed fraction κ of the remainder. This constant proportional conversion rate is precisely the log-linear property $\mathrm{d} \ln \Phi / \mathrm{d}\tilde{n} = \kappa$ that yields (4).[1] The specification is also used in the social interactions literature (Scheinkman, 2008) and in models of complex contagion where adoption requires reinforcement from multiple peers (Centola, 2018).

[1]Formally, if thresholds have CDF $F(\theta) = 1 - e^{-\kappa\theta}$, the fraction that has crossed its threshold at level $\tilde{n}$ is $F(\tilde{n}) = 1 - e^{-\kappa\tilde{n}}$—a bounded adoption curve. The social multiplier Φ in (4) is a different object: it tracks the *rate* at which new conversions occur relative to the remaining stock, which is the hazard rate $f/(1-F) = \kappa$. Integrating $\mathrm{d} \ln \Phi = \kappa\, \mathrm{d}\tilde{n}$ with $\Phi(0) = 1$ gives $\Phi(\tilde{n}) = e^{\kappa\tilde{n}}$. For small $\tilde{n}$ both the adoption curve and the multiplier reduce to $\approx \kappa\tilde{n}$; they diverge in the nonlinear regime, where the multiplier captures the self-reinforcing feedback.

The *visibility-weighted* emigrant fraction is

$$\tilde{n}(t) = \frac{\sum_{i \in \text{emigrants}} W_i^{\xi}}{\sum_{i \in \text{all}} W_i^{\xi}}, \tag{5}$$

where W_i is the wealth of agent i and $\xi \geq 0$ governs the celebrity effect (F1). When $\xi = 0$, $\tilde{n} = n$ (pure head count). When $\xi > 0$, a single prominent departure shifts $\tilde{n}$ far more than many smaller ones.

Exit-tax anticipation (F4). The factor $(1+\vartheta\, p(t))$ accelerates emigration when agents expect exit taxes. The parameter $\vartheta > 0$ governs the anticipatory acceleration and $p(t) \in [0, 1]$ is the subjective exit-tax probability, which may itself depend on n (more emigration raises political pressure for exit taxes), creating a self-reinforcing loop. The reference point here is the *expected* future tax regime, not just the current one—an expectations-based reference point in the sense of Kőszegi and Rabin (2006).

3.3 Wealth–control separation (F5)

Not all emigrating wealth carries a productivity cost. We distinguish:

- **Active-control owners** ($\mathcal{A}$): hold voting rights, exercise strategic oversight. Productivity haircut η_A (small when management is delegated to a professional CEO).
- **Passive wealth holders** ($\mathcal{P}$): hold economic rights (B-shares), no operational role. Productivity haircut $\eta_P \approx 0$ by construction.

In the typical Norwegian family firm (dual share classes), the heir emigrates with the B-shares while the controlling parent retains A-shares domestically. The wealth moves; the productive control does not.

4 Steady states and tipping

The ODE (1) is a one-dimensional dynamical system. For such systems, the qualitative behaviour—how many steady states exist and whether the system can jump discontinuously between them—is determined by the shape of the right-hand side as a function of the state variable n. The key phenomenon is *bistability*: for certain parameter values, two stable equilibria coexist (low and high emigration), separated by an unstable one. A small, slow change in the push rate ℓ can then cause the system to *tip*—to jump abruptly from the low-emigration equilibrium to the high-emigration one. This is the mechanism behind the "cascade" dynamics of Granovetter (1978), the "tipping" of Schelling (1971), and the "revolutionary threshold" of Kuran (1991). Mathematically, the transition is a *saddle-node bifurcation* (also called a *fold*): a stable and an unstable equilibrium collide and annihilate each other, leaving only the distant alternative (Strogatz, 2015, ch. 3).

The clearest recent empirical analogue outside Norway is the Madrid *efecto Madrid*: when the regional government effectively abolished its wealth tax while neighbouring Spanish regions retained theirs, high-wealth migration responded in a near-binary manner rather than as a smooth function of the tax differential. Agrawal et al. (2025) document this pattern across the post-2011 Spanish regional data. We do not claim their estimates identify κ; we note only that the observed discontinuity is qualitatively consistent with the bistable mechanism derived below.

We now derive the conditions under which this bifurcation occurs.

4.1 Steady-state equation

At steady state ($\dot{n} = 0$), Equation (1) gives

$$\lambda(\tilde{n}^*)\,(1 - n^*) = \rho\, n^* . \tag{6}$$

Writing $\ell = \lambda_0\,(1 + \vartheta\, p)$ for the non-contagion push rate and approximating $\tilde{n} \approx n$ (the $\xi = 0$ case), we substitute $\Phi(n) = e^{\kappa n}$ to obtain the steady-state condition

$$e^{\kappa n}\,\ell\,(1 - n) = \rho\, n . \tag{7}$$

Define the *effective outflow function*

$$G(n) \;\equiv\; e^{\kappa n}\,\ell\,(1 - n) \;-\; \rho\, n . \tag{8}$$

We have $G(0) = \ell > 0$ and $G(1) = -\rho < 0$, so at least one interior steady state always exists. The second derivative is

$$G''(n) = \ell\, e^{\kappa n}\big[\kappa^2(1 - n) - 2\kappa\big], \tag{9}$$

which changes sign at $n_{\text{infl}} = 1 - 2/\kappa$. For $\kappa > 2$, the outflow function is convex near the origin and concave for $n > n_{\text{infl}}$—an S-shape that permits multiple crossings of the n-axis and hence multiple steady states.

Remark. With the linear approximation $\Phi(n) \approx 1 + \kappa n$, the outflow function becomes a concave quadratic $G(n) = -\kappa\ell\, n^2 + [(\kappa - 1)\ell - \rho]\, n + \ell$, which has exactly one root in $[0, 1]$ for all parameter values. The linear specification thus produces amplification but not bistability; the nonlinear (exponential) term is essential for the fold.

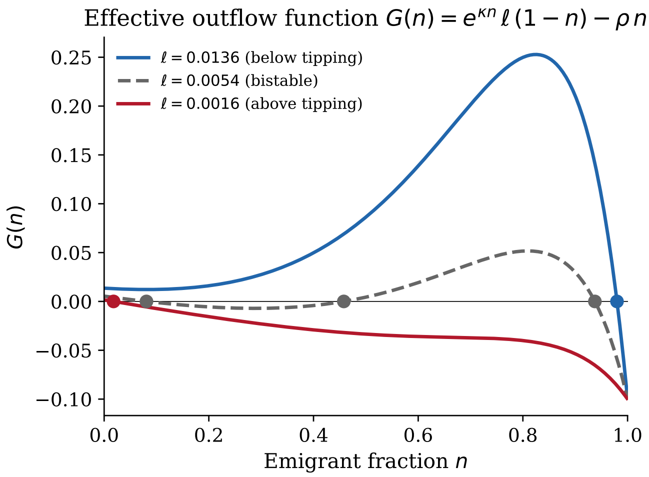

Figure 1: The effective outflow function $G(n) = e^{\kappa n} \ell (1 - n) - \rho n$ for three values of the total push rate ℓ. Zeros of G (circles) are steady states. For ℓ between the two fold values ℓ^- and ℓ^+, the S-shape created by the exponential social multiplier produces three zeros—two stable equilibria (low and high emigration) separated by an unstable one. Parameters: $\kappa = 6$, $\rho = 0.10$ (schematic).

4.2 Critical contagion strength

The system transitions from one to three steady states (the tipping point) when G and G' vanish simultaneously. Setting $G'(n) = 0$ gives

$$\ell \, e^{\kappa n} \big[\kappa(1 - n) - 1\big] = \rho \,.$$

Substituting into $G(n) = 0$ and simplifying yields what we call the *fold condition*—the requirement for a saddle-node bifurcation, where a stable and an unstable equilibrium collide and annihilate (see the introductory discussion above)—expressed as a constraint on n:

$$\kappa \, n^2 - \kappa \, n + 1 = 0 \,. \tag{10}$$

This quadratic in n has real solutions if and only if its discriminant $\kappa^2 - 4\kappa = \kappa(\kappa - 4)$ is non-negative, giving:

$$\boxed{\kappa^{\text{crit}} = 4 \,.} \tag{11}$$

Proposition 1 (Tipping point)**.** *For $\kappa < 4$, the system* (1) *has a unique stable steady state for every $\ell > 0$. For $\kappa \geq 4$, there exists an interval of push rates $\ell \in (\ell^-(\kappa, \rho),\ \ell^+(\kappa, \rho))$ for which two stable steady states coexist (low and high emigration), separated by an unstable equilibrium. The boundaries $\ell^\pm$ are saddle-node bifurcation points.*

[2]

[2] The bifurcation at $\kappa^{\text{crit}} = 4$ is an instance of a broader class of mean-field threshold phenomena. Bernard et al. (2026) find an analogous critical coupling in the Bouchaud–Mézard model: below φ_c, wealth

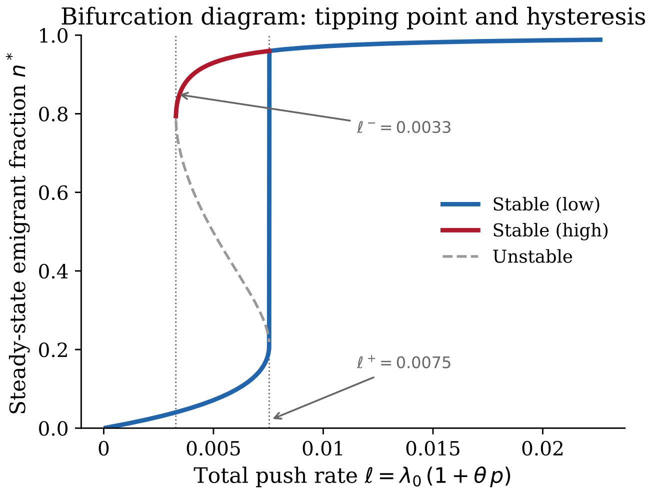

Figure 2: Bifurcation diagram: steady-state emigrant fraction n^* as a function of the total push rate ℓ. For $\ell \in (\ell^-, \ell^+)$ the system has two stable branches (blue: low emigration; red: high emigration) connected by an unstable branch (grey dashed). Increasing ℓ past ℓ^+ triggers an irreversible jump to the high-emigration branch; recovery requires reducing ℓ below $\ell^- < \ell^+$ (hysteresis). Parameters: $\kappa = 6$, $\rho = 0.10$ (schematic).

At the two saddle-node (fold) bifurcation points, the critical emigrant fractions are

$$n^{\pm}_{\mathrm{fold}} = \frac{1 \pm \sqrt{1 - 4/\kappa}}{2}, \tag{12}$$

and the corresponding critical push rates follow from (7):

$$\ell^{\pm}(\kappa, \rho) = \frac{\rho\, n^{\pm}_{\mathrm{fold}}}{e^{\kappa\, n^{\pm}_{\mathrm{fold}}}\,(1 - n^{\pm}_{\mathrm{fold}})}. \tag{13}$$

The tipping threshold ℓ^+ is *decreasing* in κ: stronger contagion means a smaller push suffices to trigger the cascade. Conversely, the four destabilising forces raise the total push rate ℓ toward ℓ^+:

1. A tax increase raises ℓ via $\Delta\tau_w$ (F2).
2. A hostile policy regime raises ℓ via h (F3).
3. Exit-tax expectations raise ℓ via $\vartheta\, p$ (F4).
4. High visibility ($\xi > 0$) amplifies $\tilde{n}$ relative to n, effectively increasing the contagion strength (F1).

No single factor needs to be large. The Norwegian cascade resulted from the simultaneous activation of all four channels, each individually insufficient but jointly pushing ℓ past the

condenses on a single agent; above it, wealth is delocalised. The two bifurcations are mirror images—theirs is a loss of confinement (stabilising coupling too weak), ours is a loss of cohesion (destabilising coupling too strong)—but both are controlled by a single dimensionless ratio and exhibit hysteresis.

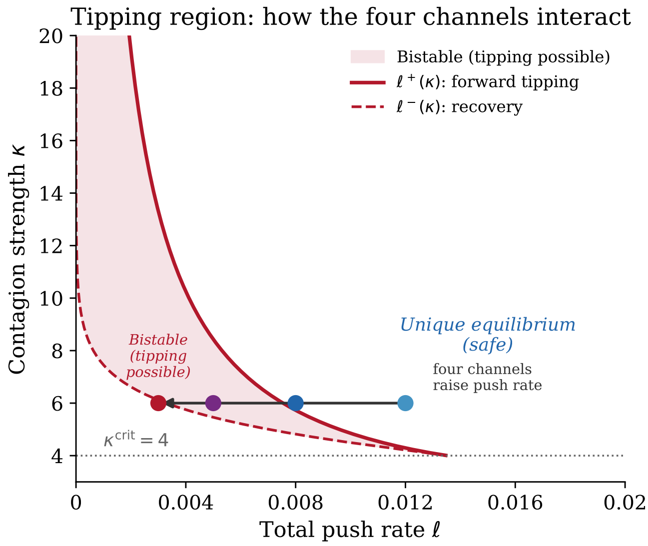

Figure 3: Tipping region in the (ℓ, κ) plane. The shaded area between the fold curves $\ell^-(\kappa)$ and $\ell^+(\kappa)$ is the bistable region where both low- and high-emigration steady states coexist. Below $\kappa^{\text{crit}} = 4$ (dotted line) no bistability is possible regardless of ℓ. The four destabilising channels—tax level, reference dependence, policy hostility, and exit-tax anticipation—jointly raise the effective push rate toward the tipping boundary. Parameters: $\rho = 0.10$ (schematic).

tipping threshold.

4.3 The Norwegian narrative

Before 2021: τ_w stable, h low, $p \approx 0$, $\tilde{n} \approx 0$. The total push ℓ is small, well below ℓ^+—the system sits safely on the low-emigration branch ($n^* \approx 0.2\%$).

2021–2022 sequence:

1. Change of government raises h sharply (F3).
2. Wealth tax increase raises $\Delta\tau_w$; the reference-dependent channel amplifies ℓ beyond the absolute level (F2).
3. Discussion of exit taxes raises p, activating the anticipation multiplier (F4).
4. A single highly visible departure shifts $\tilde{n}$ far more than n, triggering the contagion cascade (F1).

The combined effect pushes ℓ past ℓ^+, and the system tips to the high-emigration branch. Recovery requires pushing ℓ back below $\ell^- < \ell^+$ (hysteresis).

Removing any one of the four channels might have been sufficient to prevent the tipping—which explains why similar tax *levels* in other Nordic countries have not produced comparable emigration waves.

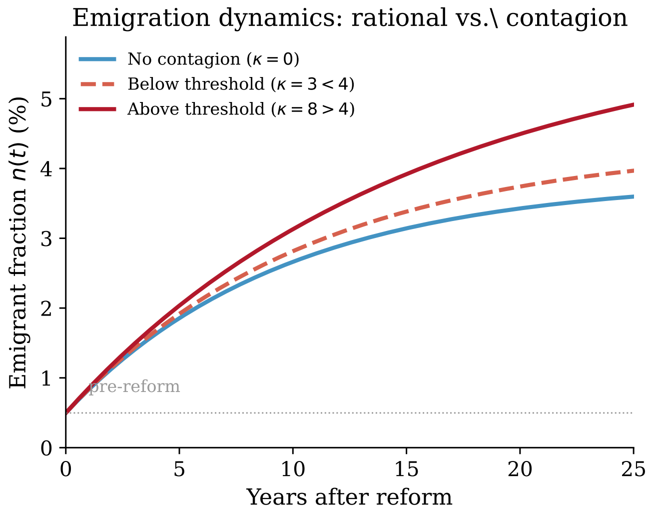

Figure 4: Time trajectories of the emigrant fraction $n(t)$ after a permanent increase in the push rate at $t = 0$. Without contagion ($\kappa = 0$) the system converges smoothly to a new low equilibrium. Below the critical threshold ($\kappa = 3 < 4$) contagion amplifies the response but the dynamics remain monotone. Above the threshold ($\kappa = 8 > 4$) the system undergoes an S-shaped cascade to the high-emigration branch. Parameters: $\rho = 0.10$, $\ell = 0.004$ (schematic).

5 The Fokker–Planck foundation

This section summarises the results from the Fokker–Planck framework for wealth distributions developed in Frøseth (2026b,d,c) that are needed for the empirical analysis. The presentation is self-contained.

5.1 Wealth dynamics and the Fokker–Planck equation

Individual wealth $W_i(t)$ evolves as geometric Brownian motion:

$$\frac{\mathrm{d}W}{W} = \mu\,\mathrm{d}t + \sigma\,\mathrm{d}B_t\,, \tag{14}$$

where μ is the expected return on capital and σ the volatility. Applying Itô's lemma to $x = \ln W$ gives:

$$\mathrm{d}x = v\,\mathrm{d}t + \sigma\,\mathrm{d}B_t\,, \qquad v \equiv \mu - \tfrac{\sigma^2}{2}\,. \tag{15}$$

The probability density $\pi(x, t)$ of log-wealth across the population satisfies the Fokker–Planck equation:

$$\frac{\partial \pi}{\partial t} = -v\,\frac{\partial \pi}{\partial x} + D\,\frac{\partial^2 \pi}{\partial x^2}\,, \qquad D = \frac{\sigma^2}{2}\,. \tag{16}$$

5.2 Drift-shift symmetry

A proportional wealth tax at rate τ_w reduces the after-tax return from μ to $\mu - \tau_w$. In the Fokker–Planck equation, this is a uniform shift of the drift coefficient:

$$v \;\to\; v_\tau = v - \tau_w \,, \qquad D \;\to\; D \,. \tag{17}$$

This *drift-shift transformation* $\mathcal{T}_\tau : v \mapsto v - \tau_w$, $D \mapsto D$ preserves drift differences between assets $(v_i - v_j)$, diffusion ratios (D_i/D_j), and all Sharpe-ratio-like quantities—and therefore leaves optimal portfolio weights unchanged (Frøseth, 2026d, Proposition 2). This is the mathematical content of wealth tax neutrality: the tax acts as a Galilean-type boost in log-wealth space.

The neutrality breaks down when the tax base departs from market value. If asset i has a book-to-market ratio β_i, the effective tax rate is $\tau_w^{(i)} = \tau_w \cdot \beta_i$ and the drift shift becomes asset-dependent:

$$v_i \;\to\; v_i - \tau_w \, \beta_i \,. \tag{18}$$

This is the first of several symmetry-breaking channels classified in Frøseth (2026d). In the Norwegian system, unlisted shares are assessed at book value with a statutory assessment fraction $\beta = 0.80$, while listed shares are assessed near market value. The effective tax burden is therefore asset-class-dependent, creating anisotropic drift across portfolio components.

Theorem 1 (One-period book-value pricing; Frøseth (2026b), Theorem 1)**.** *Under no-arbitrage, the market value of an asset under book-value wealth taxation is*

$$V = \frac{1}{1-\tau_w}\left(V^0 - \frac{\tau_w B}{1+r_f}\right), \tag{19}$$

where V^0 is the pre-tax market value, B is the book value, and r_f is the risk-free rate.

When the book-to-market ratio $\theta = B/V^0 < 1$ (the empirically dominant case), the asset is worth *more* under book-value taxation than under market-value taxation: the investor pays tax on a smaller base. For a typical Norwegian unlisted holding with $\theta \approx 0.4$, the effective assessment relative to market wealth is $\beta\,\theta \approx 0.32$—the tax base is roughly a third of market value.

5.3 Pareto tail and demographic turnover

Pure GBM produces a spreading Gaussian; a stationary distribution requires an additional mechanism. Following Gabaix (2009), demographic turnover at rate $\delta > 0$ (each individual replaced by a new entrant near the mean) adds a source-sink term:

$$\frac{\partial \pi}{\partial t} = -v\,\frac{\partial \pi}{\partial x} + D\,\frac{\partial^2 \pi}{\partial x^2} - \delta\,\pi + \delta\,\phi(x)\,, \tag{20}$$

where $\phi(x)$ is the entrant distribution. The stationary right tail $\pi_{\text{ss}}(x) \propto e^{-\zeta x}$ satisfies the characteristic equation $D\zeta^2 - v\zeta - \delta = 0$, with positive root:

$$\zeta = \frac{v + \sqrt{v^2 + 4D\delta}}{2D}\,. \tag{21}$$

Since $\pi_{\text{ss}} \propto e^{-\zeta x}$ in log-wealth corresponds to $p(W) \propto W^{-(1+\zeta)}$ in wealth, this is a Pareto distribution with tail exponent ζ. For representative Norwegian parameters ($\sigma \approx 0.30$, $\mu \approx 0.08$, $\delta \approx 1/30$), this gives $\zeta \approx 1.5$–2.0.

The Gini coefficient for a pure Pareto tail is $\text{Gini} = 1/(2\zeta - 1)$; for $\zeta = 1.5$, this gives $\text{Gini} = 0.5$. Increasing the wealth tax raises ζ (steeper tail, less inequality) through the drift-shift $v_\tau = v - \tau_w < v$.

Remark (Tail stability under heterogeneous returns). Equation (21) derives ζ from a homogeneous model in which all agents share the same drift v and diffusion D. Bernard et al. (2026) solve the mean-field model with quenched heterogeneous growth rates and show that the tail exponent in the partially localised phase takes the form $\mu = 1 - \Sigma_0^2/\sigma^4$, where Σ_0^2 is the cross-sectional variance of growth rates. The exponent thus depends on the *dispersion* of returns, not just the mean drift. This is consistent with the empirical finding (Section 6.2) that the Hill estimate $\hat{\alpha} \approx 1.3$ is stable across all years of the Kapital 400 panel, including the post-reform period: a uniform drift shift (wealth tax increase) changes v but does not affect Σ_0^2, so the tail exponent is approximately invariant under the tax change. The stability of $\hat{\alpha}$ is therefore a prediction of the heterogeneous-return model, not a coincidence.

The spectral gap of the Fokker–Planck operator determines the relaxation timescale—how quickly the wealth distribution converges to its new steady state after a policy change. For realistic parameters:

$$t_{1/2} = \frac{\ln 2}{\Lambda} \approx 21 \text{ years}\,. \tag{22}$$

5.4 Migration as a permeable boundary

The taxonomy of Fokker–Planck modifications in Frøseth (2026c) classifies migration as a *permeable boundary*: the confining potential that sustains the steady state operates only up to a wealth threshold beyond which agents exit the jurisdiction. The reflecting boundary at infinity is replaced by a partially absorbing boundary:

$$J(x_m, t) = \gamma\, \pi(x_m, t)\,, \tag{23}$$

where J is the probability current and $\gamma > 0$ is a migration rate. The consequence is a truncated Pareto tail: the right tail is cut not by policy design but by agent exit, and the effective Gini reduction is smaller than the closed-boundary prediction.

At the macroscopic level, the permeable-boundary picture rationalises the quasi-binary regional response discussed in Section 4: once the push rate exceeds the effective migration barrier, the outflow is large and discrete rather than a smooth function of the local tax differential. Small interregional differentials generate negligible boundary flux, while a discrete policy gap opens the boundary.

Remark (Micro-foundation of the scalar ODE)*.* The scalar ODE (1) arises from a coupled Fokker–Planck system for resident and emigrant densities $\pi_R(x, t)$, $\pi_E(x, t)$, with contagion-dependent transfer rate $\lambda(\tilde{n}, t)$ and return rate ρ. Integrating the emigrant equation over log-wealth recovers (1) exactly when λ is wealth-independent, and approximately under a separation of time scales: wealth distributions equilibrate on a time scale $\sim D^{-1}$, while migration cascades unfold over years.

6 Empirical evidence from the Kapital 400

6.1 Data and timing conventions

Kapital, a business magazine published by Hegnar Media,[3] publishes an annual list of the 400 wealthiest Norwegians each autumn (Kapital/Finansavisen, 2011–2025).[4] We construct a panel of 569 unique persons over 2011–2025. For each person-year the data include an estimate of market wealth (in NOK billions), net taxable assets, and tax paid.

The timing structure is important. The market-value estimate targets 1 September of the publication year t (the list is typically released later that month). Taxable assets and tax paid come from the public filing for tax year $t - 1$. Within taxable assets, two distinct lags apply:

[3] Hegnar Media also publishes the financial newspaper Finansavisen; the Kapital 400 data are hosted on the shared web platform at `finansavisen.no/kapital`.

[4] Data were collected from individual person pages on `finansavisen.no/kapital-index`, which report market-wealth estimates, taxable assets, and tax paid for each list member. The panel was constructed by scraping individual person pages incrementally across multiple list years and merging with the current (2025) edition. The resulting dataset contains 569 unique persons: all 400 on the current list plus 169 who appeared in earlier editions but have since dropped off (due to death, wealth falling below the entry threshold, or editorial reclassification). The online Kapital Index retains historical data only for persons who appear on the current list, so the historical coverage of the full 400-entry cohort is incomplete for early years—42% of the 2011 cohort is missing—but reaches full coverage by 2020 (see Figure 5b).

1. For directly held listed shares, the assessment base is the 1 January year-t price—an $\sim$8-month lag relative to the market-value estimate.
2. For unlisted shares, the assessment base is the statutory book value (*skattemessig formuesverdi*) at the beginning of tax year $t-1$—a $\sim$20-month lag.

Unlisted shares are further subject to the statutory assessment fraction $\beta = 0.80$ applied to book value. For a typical holding company with book-to-market ratio $\theta \approx 0.4$, the effective assessment relative to market wealth is $\beta\,\theta \approx 0.32$: the tax base is roughly a third of market wealth (Theorem 1; Frøseth, 2026b, §9).

The *ligningsformue* (taxable net wealth) column adds a further complication. Kapital's market-value column aggregates holdings under the family head, whereas ligningsformue refers to the *individual* tax filing. When shares have been restructured into children's names or holding companies, ligningsformue may collapse without any change in economic control. A prominent case from the dataset: a fish-farming heir formally inherited the bulk of the family's listed-company stake in 2013, collapsing the father's ligningsformue, but the father retained voting control via A-shares and Kapital continues to list the combined family wealth under his name.

6.2 The Pareto tail

A Pareto-tailed distribution is characterised by a power-law survival function (complementary CDF):

$$P(W > w) \;\propto\; w^{-\alpha}, \qquad w \to \infty\,, \tag{24}$$

which appears as a straight line with slope $-\alpha$ on log-log axes. We estimate the tail exponent directly from the market-wealth column using the Hill estimator:

$$\hat{\alpha}_k = \frac{k}{\sum_{i=1}^{k}\bigl[\ln W_{(i)} - \ln W_{(k+1)}\bigr]}\,, \tag{25}$$

where $W_{(1)} \geq \cdots \geq W_{(n)}$ are the order statistics and k is the number of upper-tail observations. The results for 2025 ($n = 400$, $W_{\max} = 262$ bn, $W_{\min} = 1.25$ bn):

$$\hat{\alpha}_{10\%} = 1.21, \qquad \hat{\alpha}_{20\%} = 1.37, \qquad \hat{\alpha}_{30\%} = 1.20\,.$$

Across all years the Hill exponent is remarkably stable, averaging $\hat{\alpha} \approx 1.30$ at the 20% tail fraction with no discernible time trend. This is consistent with—but somewhat below—the theoretical prediction $\zeta \approx 1.5$–2.0 from (21), as expected for a sample that conditions on the top 400 and therefore truncates the body of the distribution.

Concentration measures confirm the fat tail: the top 10 fortunes hold 29–37% of total Kapital 400 wealth depending on year, and the within-cohort Gini ranges from 0.54 to

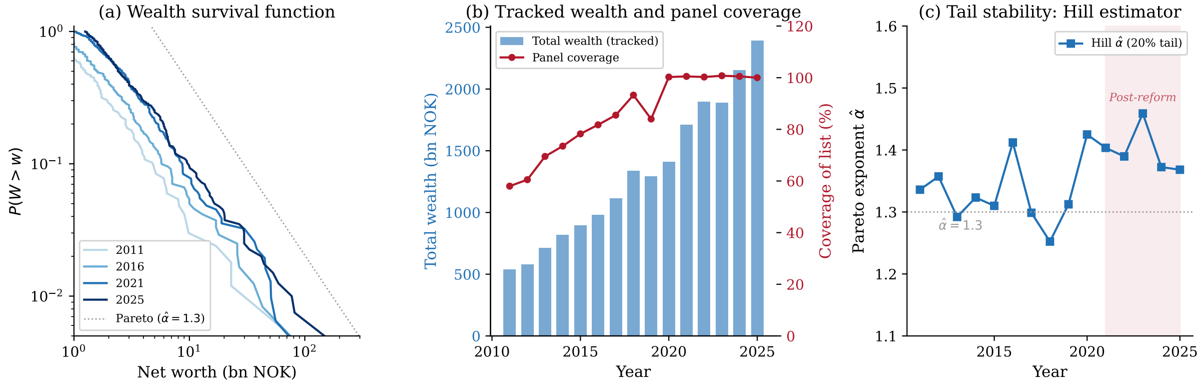

Figure 5: Wealth distribution of the Kapital 400 panel (2011–2025). **(a)** Complementary CDF (survival function) on log-log axes for selected years. The approximate linearity confirms the Pareto tail; the dashed reference line corresponds to $\hat{\alpha} = 1.3$. **(b)** Total tracked wealth (bars) and panel coverage as a fraction of the published 400-entry list (circles, right axis). Coverage is incomplete before ∼2020 because the Kapital Index database retains historical data only for persons who appear on the current list; those who fell below the entry threshold are removed. Total wealth for earlier years is therefore a lower bound. **(c)** Hill estimator of the Pareto exponent at the 20% tail fraction. The exponent is remarkably stable across the entire sample period, including the post-reform years (shaded), indicating that the tail shape is unaffected by the emigration episode.

0.60.

6.3 Identifying emigrants

Cross-referencing the panel with biographical descriptions on each person page and the "emigration fingerprint" (tax paid collapsing to near-zero while market wealth continues) yields 67 direct emigrants among current and former Kapital 400 members; a separate investigation of intergenerational wealth transfers identifies an additional 36 recent heir-emigrants (Section 6.4).[5]

At least 16 are long-term expatriates (pre-2016): Fredriksen (1978), Hagen (1968), Siem (1972), Smedvig (1991), Stolt-Nielsen (2001), Trøim (1995), among others. The high-profile post-reform departures—Røkke (Sep 2022), Klaveness (2022), a prominent shipping-family estate division (2021), Moan (2024)—all occurred *after* Blandhol's 2016–2020 window closes.

Excluding the long-term expatriates, 27 direct emigrants departed during the policy-relevant window 2016–2025, carrying a combined market wealth of approximately 172 bn NOK.

[5]The underlying data are from publicly available Kapital 400 person pages. To protect the privacy of living individuals, the seven Blandhol-window emigrants are identified by coded labels rather than by name. The well-known long-term expatriates and post-reform departures are public figures whose emigration is widely reported. Heir-emigrants were identified from Finansavisen coverage and the Kapital 300 heir list, and cross-verified against Kapital 400 family entries. An additional six heirs classified as long-term foreign residents (abroad well before 2016) are excluded from the recent count.

Table 2: Kapital 400 emigrants within the Blandhol sample window (2016–2020). Market wealth and ligningsformue (lig.) are in NOK billions as of the last year the individual appeared on the domestic tax rolls.

ID	Sector	Wealth	Lig.	Year	Type
E1	Financial services	9.0	7.24	2018	Passive (sole owner of financial holding)
E2	Diversified portfolio	8.7	5.10	∼2020	Passive (heir; professional CEO)
E3	Commercial real estate	3.0	0.21	∼2019	Active (operating business)
E4	Technology (post-exit)	∼1	—	∼2016	Passive (post-liquidity event)
E5	Technology (post-exit)	∼1	—	∼2016	Passive (post-liquidity event)
E6	Technology (post-exit)	∼1	—	∼2016	Passive (post-liquidity event)
E7	Financial services	1.1	—	∼2017	Passive (sold stake; now investor)

These 27 are the focus of the analysis below.

Seven of them emigrated within the Blandhol window (2016–2020). Table 2 characterises each by sector, wealth bracket, emigration year, and the nature of their wealth (active control versus passive holdings).

Of these seven, only E3 ran a domestic operating business. The rest are financial investors, passive heirs, or post-exit entrepreneurs. Moreover, the departures are not independent events: E1 and E7 were former business partners; E4–E6 moved together after a shared liquidity event. E2's sibling remains in Norway and continues to pay tax at full rates; Kapital lists the combined family wealth under both siblings separately but with identical totals.

6.4 The hidden channel: heir-emigrants

The 27 direct emigrants identified above are persons who themselves appear on the Kapital 400 list and whose emigration is detectable through the ligningsformue fingerprint or the profile residence field. A second, quantitatively comparable channel is invisible in the panel data: *heir-emigration*, in which the controlling owner transfers economic ownership (B-shares or equivalent non-voting equity) to children or grandchildren who then emigrate, while the controlling owner retains A-shares (voting control) and remains a Norwegian tax resident.

Table 3: Largest identified recent heir-emigrants from Kapital 400 and Kapital 300 families. "Wealth" is the journalist-estimated economic value held by the heir (Kapital 300 estimate, October 2025). All figures in NOK billions. The table shows the 12 largest cases; 24 additional heirs carry a combined 24.6 bn. Six long-term foreign residents (20.0 bn) and one pre-2016 emigrant (21.0 bn) are excluded. To protect the privacy of heirs—who are typically in their 20s–30s and not public figures—entries are coded analogously to Table 2.

ID	**Heirs**	**Wealth**	**Year**	**Dest.**	**Sector**
H1	2	25.6	2022	CH	Grocery / diversified
H2	1	14.5	2022	CH	Industry / diversified
H3	1	14.2	2022	CH	Real estate
H4	1	7.6	2023	UK	Shipping / finance
H5	1	7.4	2025	SE	Real estate
H6	1	6.5	—	CH	Real estate
H7	2	6.6	2022	IT	Industry / diversified
H8	1	4.8	2021	UK	Shipping
H9	2	4.7	2024–25	CH/IT	Shipping
H10	1	3.6	—	CH	Real estate
H11	1	3.5	—	CH	Consumer goods
H12	1	3.1	—	CH	Technology
24 additional heirs					
Total	**36**	**126.6**			

The Kapital 400 lists family wealth under the controlling owner's name. When an heir emigrates with B-shares, the controlling owner's ligningsformue may collapse—but the list attributes the market wealth to the family unit, not to the individual heir. The heir never appears as a separate entry and is therefore undetectable through within-panel methods.

Systematic cross-referencing of Kapital 400 family profiles, Kapital 300 heir profiles, and Norwegian business press coverage identifies 36 recent heir-emigrants carrying a combined wealth of approximately 127 bn NOK.[6] Table 3 reports the largest cases.

Several features of the heir-emigrant channel are noteworthy. First, the scale is comparable to direct emigration: 127 bn NOK in recent heir wealth versus 172 bn among the 27 direct emigrants, giving a combined total approaching 300 bn NOK. Heirs account for 57% of emigrant persons and 42% of emigrant wealth. Second, Switzerland remains the dominant destination (25 of 36 recent heirs, 69%), but the heir channel shows more destination

[6] Primary sources: Finansavisen, "Stadig flere unge velger Sveits," 28 August 2025 (22 Swiss heir-emigrants); and the Kapital 300 heir list (https://www.finansavisen.no/kapital-index/norges-rikeste-arvinger), accessed October 2025, which adds 11 heirs not in the August tabulation (including non-Swiss destinations). All entries were cross-verified against the Kapital 400 panel by controlling owner name and person identifier. An additional six heirs are classified as long-term foreign residents (abroad well before any tax-policy change) and one pre-2016 emigrant (2009); these are excluded from the recent count.

diversity than direct emigration: three heirs moved to the UK, three to Italy, two to Denmark, and one each to Sweden, Cyprus, and the Netherlands. Third, the mechanism is specifically tied to the Norwegian dual share-class structure and the *fritaksmetoden*: by transferring B-shares (which carry economic value but no voting rights) while retaining A-shares, the controlling owner can engineer a generational transfer that simultaneously achieves succession planning and tax-base migration—without any operational disruption to the underlying enterprise.

Six additional heirs—carrying a combined 20 bn NOK—are classified as long-term foreign residents who have lived abroad well before any tax-policy change and are excluded from the recent count. Several were born abroad or moved as children and never resided in Norway as adults. The distinction matters: the "utflyttet" flag in Kapital's data does not distinguish recent tax-motivated emigrants from heirs who never lived in Norway.

The productivity haircut for heir-emigrants is, by construction, zero: the heir held no management role, the controlling owner continues to run the company, and the professional management team remains in Norway. This is the strongest empirical evidence for the wealth–control separation (F5 in Section 2): the emigrating wealth is pure economic exposure with no attached human capital.

Why is the heir channel so much more active than the direct channel? Friedman et al. (2025), drawing on in-depth interviews with 35 individuals in the top 1% of the UK wealth distribution, find that place-specific attachments—career networks, family proximity, and above all the cultural infrastructure of London—overwhelmingly dominate tax considerations in location decisions. None of their interviewees were planning to move for tax reasons; many drew sharp moral boundaries against those who do, dismissing low-tax destinations as "boring and culturally barren." These place-specific anchors accumulate over a lifetime and are strongest for established senior owners in their 60s and 70s. Heirs in their 20s and 30s, by contrast, have not yet built comparable location-specific capital: they have weaker professional attachment, thinner social networks, and face lower stigma for relocating (they are "starting a life abroad" rather than "fleeing taxes"). The generational asymmetry in place-specific capital thus explains why the intergenerational transfer moment is the critical juncture for tax-base migration.

Remark (The Great Wealth Transfer and heir-emigration). The Norwegian heir-emigrant channel is likely an early instance of a broader phenomenon. Aggregate bequeathable wealth in the United States rose from 256% to 425% of GDP between 1997 and 2021, with 97% of the increase accruing to households aged 55 and older and 75% to the top decile within that group (Gale et al., 2024). Comparable demographic dynamics apply in Western Europe. Each intergenerational transfer creates a decision point at which the heir can choose tax jurisdiction. Advani et al. (2025) find that among UK super-rich taxpayers, those not attached to the local labour market respond significantly more strongly to tax changes—the elasticity is concentrated among passive wealth-holders. Combined with the place-specific capital mechanism documented above (Friedman et al., 2025), heirs are the limiting case on both dimensions: no operational role and no accumulated location-specific capital, making them maximally mobile.

Countries that combine wealth or inheritance taxation with an ageing ultra-wealthy cohort should therefore see heir-emigration accelerate during the peak transfer years (roughly 2025–2045), particularly where dual share-class structures allow economic and control rights to be separated.

6.5 Descriptive patterns consistent with contagion

The emigration episode exhibits four descriptive patterns that a standard independent-response model cannot easily generate. We stress that these are suggestive, not causally identified; the data cannot distinguish social contagion from common shocks or correlated preferences. Nonetheless, the conjunction of all four raises the empirical cost of maintaining the independent-response null.

Reversed sequencing and destination convergence. The temporal structure is the reverse of what the standard model predicts. Phase 1 (2018–2021) comprises roughly a dozen direct departures, led by a single financial-services principal in 2018 (E1) and followed by a handful of real-estate and finance figures plus a three-sibling shipping-family cluster (∼60 bn NOK combined). Phase 2 (2022–2024) adds roughly fifteen direct departures totalling ∼90 bn NOK, plus numerous heir-emigrations (H1–H12 and others, together ∼127 bn across 36 identified recent heirs). Including both channels, total emigrating wealth approaches 300 bn NOK. Emigration years are identified from the *ligningsformue* fingerprint: when a person's taxable wealth collapses relative to their market valuation while remaining on the Kapital 400 list, they have left the Norwegian tax base. Røkke's 2022 departure is the clearest case: ligningsformue fell from 18.6 bn to 1.3 bn while net worth remained above 35 bn, and the exit year coincided with a record *utlignet skatt* of 1013 mn NOK. Under independent response, the largest fortunes—facing the highest absolute burden—should move first; instead, a small vanguard of mid-fortune holders moved before the largest followed, precisely the pattern generated by a threshold model (Granovetter, 1978). Simultaneously, pre-2016 emigrants dispersed across the UK, US, Monaco, Cyprus, and Switzerland, whereas post-2021 departures converge overwhelmingly on Swiss low-tax cantons (Zug, Schwyz, Lugano). The heir-emigrant data reinforce this: 25 of 36 recent heirs (69%) moved to Switzerland, though the heir channel shows somewhat more destination diversity (UK, Italy, Scandinavia) than the direct channel. A 2025 cross-section confirms the concentration: 33 of 66 foreign-resident Kapital 400

Table 4: Network and family clusters among post-2016 Kapital 400 emigrants. N: number of identified members (direct + heir). Link type characterises the social or informational channel connecting cluster members. Heir-emigrant clusters (bottom panel) involve B-share transfers where the controlling owner remains in Norway.

Cluster	N	**Sector**	**Phase**	**Link type**	**Compound shock**
Direct emigrants					
Tech startup (E4–E6)	3	Technology	1	Colleagues; shared exit	Post-liquidity event
Fintech co-founders	2	Tech / finance	2	Co-founders	Post-liquidity event
Finance network (E1, E7)	2	Finance	1	Former partners	—
Real estate milieu	∼10	Commercial RE	1–2	Shared advisors, brokers, industry forums	Valuation tightening + rate reversal + generational transition
Shipping/cruise family heirs	3	Hotels / cruise	1	Family (estate division)	—
Aquaculture	2	Salmon farming	2	Sector peers	*Grunnrenteskatt* + production tax + wealth tax
High-profile individuals	∼6	Mixed	2	—	—
Heir-emigrants (B-share transfers, controlling owner remains in Norway)					
Mega heirs (>10 bn)	4	Diversified	2	Intergenerational B-share transfer	Wealth tax + exit-tax anticipation
Mid-tier heirs (1–10 bn)	∼20	Mixed	1–2	Intergenerational transfer; Swiss advisory network; UK/IT lifestyle	—
Sub-billion heirs	∼12	Mixed	2	Intergenerational transfer	—

members reside in Switzerland.

Network and family clusters. The departures are not independent draws. Table 4 catalogues the identifiable clusters among post-2016 emigrants, including both direct emigrants and heir-emigrants (Section 6.4). The clustering by professional network, family, and intergenerational transfer—shared advisors, direct encouragement, reduction of perceived stigma through peer example—exceeds what independent optimisation would predict.

Sector-specific compound shocks. The sector composition reflects compound shocks beyond the wealth tax alone. Real-estate investors span both phases: assessment rules tightened sharply (secondary housing discounts removed; *gjeldsreduksjon* crystallising pos-

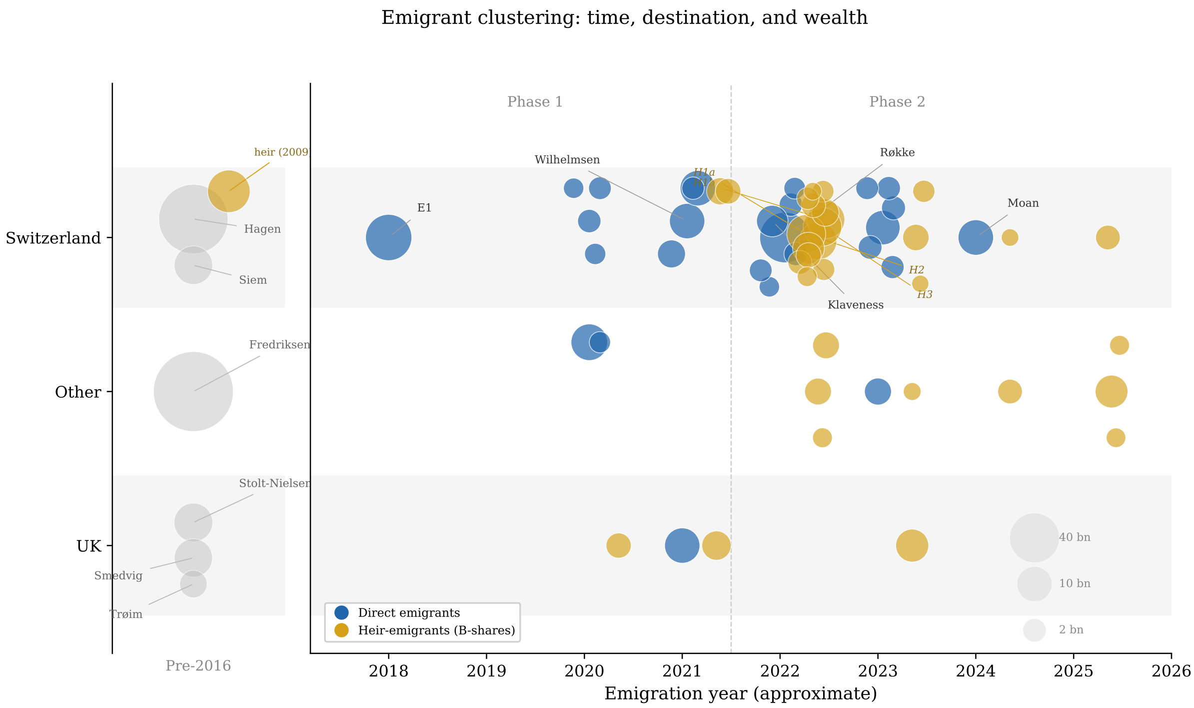

Figure 6: Emigrant clustering in time, destination, and wealth. Blue circles represent direct emigrants; gold circles represent heir-emigrants (B-share transfers where the controlling owner remains in Norway). Bubble area is proportional to market wealth (NOK bn). The left margin shows pre-2016 long-term expatriates for scale; the main panel covers 2018–2025. The dashed line separates Phase 1 (small vanguard) from Phase 2. Only widely reported public-figure departures are labelled by name; other emigrants are identified by coded labels (Tables 2 and 3) or left unlabelled. Emigration years for direct emigrants are inferred from the *ligningsformue* fingerprint; heir-emigrant years are known for approximately ten cases from press sources and estimated for the remainder. The vertical axis illustrates the convergence from dispersed pre-2016 jurisdictions to near-complete Swiss concentration.

itive tax bases on previously negative-net-wealth portfolios; Frøseth, 2026a, §9.3), and the interest-rate reversal (0% in May 2020 to 4.50% by December 2023) hit leveraged property investors hardest. For founder-operators aged 60–65 who built portfolios during decades of falling rates, the simultaneous reversal coincided with natural succession questions. These conventional channels explain the sectoral *composition*; what they do not explain is the *clustering* in time and destination among operators in different cities and market segments who share brokers, bankers, and industry forums. In aquaculture, a layered shock—traffic-light system (2017), per-kilogram production tax (2021), 25% resource rent tax passed retroactively in 2023 after a 40% proposal that caused listed stocks to fall 15–19% overnight—far exceeds the wealth tax alone. In both sectors, the compound shock provided the *motive*; the network shaped the *timing* and *destination*.

The micro-elasticity gap. Jakobsen et al. (2024) estimate that a 1 pp wealth tax increase reduces the stock of wealthy residents by ∼2%. Applied to Norway (effective rate increase ∼0.25 pp on listed wealth), this predicts ∼15 additional departures from a population of ∼3,000.[7] Observed departures—254 in 2022 and 261 in 2023 among those above 10 M NOK—exceed this by an order of magnitude, consistent with an amplification mechanism.

7 The micro-to-macro gap

The aggregate output effect of emigration depends on the productivity haircut. To see how, start from a Cobb–Douglas aggregate production function $Y = A\,K^{\alpha_K} L^{1-\alpha_K}$, where K is the domestic capital stock. When an emigrant i departs, the domestically productive fraction of her capital falls from K_i to $K_i\,e^{-\eta_i}$, where $\eta_i \geq 0$ is the productivity haircut (the proportional reduction in capital that is effectively deployed domestically after emigration). Summing over all emigrants and log-differencing:

$$\frac{\Delta Y}{Y} \approx \alpha_K \sum_{i \in E} (1 - e^{-\eta_i})\,\frac{K_i}{K} = \alpha_K \sum_{i \in E} (1 - e^{-\eta_i})\,\omega_i\,, \tag{26}$$

where $\omega_i = K_i/K$ is emigrant i's share of the domestic capital stock. With the two-type decomposition of Section 3.3 (active-control owners $\mathcal{A}$ with haircut η_A and passive holders $\mathcal{P}$ with haircut $\eta_P \approx 0$), this becomes:

$$\frac{\Delta Y}{Y} \approx \alpha_K \left[(1 - e^{-\eta_A})\,\omega_E^{(\mathcal{A})} + \underbrace{(1 - e^{-\eta_P})}_{\approx 0}\,\omega_E^{(\mathcal{P})} \right], \tag{27}$$

[7] The calculation applies the Jakobsen et al. elasticity to the Norwegian wealth-tax-paying population above 10 M NOK. The compound shock also included increases in dividend and capital-gains taxation, which complicates the attribution.

where $\omega_E^{(\mathcal{A})}$ and $\omega_E^{(\mathcal{P})}$ are the aggregate wealth shares emigrated by each type. The key implication is immediate: when most emigrating wealth is passive ($\omega_E^{(\mathcal{P})} \gg \omega_E^{(\mathcal{A})}$) and $\eta_P \approx 0$, the output effect is negligible regardless of the total emigrating wealth.

Blandhol (2025) estimates a 12.6% revenue decline and scales it to a 1.3% GDP loss. The path from the event-study estimate to this aggregate figure passes through five identification conditions, each of which fails.

7.1 Market wealth versus taxable wealth

The Fokker–Planck framework (Section 5) models the evolution of *market* wealth $x = \ln W$. Blandhol's treatment population is defined by *taxable* wealth exceeding 100M NOK. The mapping between the two is mediated by the book-value assessment and the statutory assessment fraction described in Section 6.1: for a typical unlisted holding with $\theta = 0.4$ and $\beta = 0.80$, the effective assessment is 32% of market value (Theorem 1). Blandhol's threshold of 100M NOK in taxable wealth therefore corresponds to roughly 250–400M NOK in market wealth, depending on portfolio composition.

The composition of these distortions is nonlinear, asset-class-dependent, and itself a symmetry-breaking channel (Section 5.2, Equation (18)): it creates anisotropic effective drift across asset classes, distorting portfolio choice. The GDP integral below runs over market wealth, not taxable wealth; Blandhol estimates a revenue effect in taxable-wealth space and applies it to a GDP calculation in market-wealth space, with the nonlinear mapping between the two unaccounted for.

7.2 Wealth-weighted representativeness

The aggregate output effect can be written as an integral over the emigrant wealth distribution:

$$\frac{\Delta Y}{Y} = \alpha_K \int_{x_{\min}}^{\infty} \left(1 - e^{-\eta(x)}\right) \omega_E(x)\, \mathrm{d}x\,, \tag{28}$$

where $\omega_E(x) = e^x\, \pi_E(x) / \int e^x\, \pi_E\, \mathrm{d}x$ is the wealth-weighted emigrant density and $\eta(x)$ is the productivity haircut at log-wealth level x. This is the continuous-wealth generalisation of (26).

Blandhol's event study estimates an average revenue effect $\hat{\mu}^{\mathrm{DiD}}$ from a sample of $N \approx 5$ emigration events with treated firms in a narrow band of the taxable wealth distribution. For this estimate to deliver a valid GDP figure, the sample must satisfy a *wealth-weighted representativeness condition*: the wealth-weighted mean of the sampled emigrant distribution must approximate that of the population,

$$\frac{1}{N}\sum_{i=1}^{N} W_i\,\eta_i \;\approx\; \mathbb{E}_{\omega_E}\big[\eta(x)\big] = \int \eta(x)\,\omega_E(x)\,\mathrm{d}x\,. \tag{29}$$

The Pareto structure makes this condition extremely demanding. Under a Pareto distribution with exponent $\zeta < 2$, the wealth-weighted measure $\omega_E(x)$ is even more top-heavy than the count measure $\pi_E(x)$: weighting by e^x shifts one unit of tail mass, giving an effective exponent $\zeta - 1 < 1$ in the wealth-weighted density. With $\hat{\alpha} \approx 1.3$ (Section 6.2), the wealth-weighted exponent is ≈ 0.3.

Proposition 2 (Tail dominance)**.** *Let the emigrant wealth distribution follow a Pareto law with tail exponent ζ. Then for any productivity haircut $\eta(x) \geq 0$ bounded away from zero on the upper tail:*

1. *The wealth-weighted expectation $\mathbb{E}_{\omega_E}[\eta]$ is determined almost entirely by the behaviour of $\eta(x)$ for large x.*
2. *If $\zeta < 2$ (empirically $\hat{\alpha} \approx 1.3$), the variance of $\hat{\eta}$ estimated from N i.i.d. draws from the body of the distribution diverges: the sample mean is an inconsistent estimator of the wealth-weighted population mean.*
3. *For a sample of size N drawn from wealth levels below the p-th percentile, the fraction of the wealth-weighted integral captured is at most $p^{(\zeta-1)/\zeta}$, which for $\zeta = 1.3$ and $p = 0.95$ gives $0.95^{0.23} \approx 0.99$ but for $p = 0.50$ gives $0.50^{0.23} \approx 0.85$. The top 5% of emigrants by wealth carry $> 15\%$ of the integral's mass; the top 1% carry $> 5\%$.*

In the Kapital 400 data, the top 10 emigrant fortunes (Fredriksen, Røkke, etc.) hold more market wealth than the remaining 57 identified direct emigrants combined. None of them emigrated during 2016–2020 with an active domestic operating company. Adding the 36 recent heir-emigrants (Section 6.4) reinforces the point: 127 bn NOK of emigrating wealth is, by construction, entirely passive—the heir held no management role and the controlling owner remained in Norway. The wealth-weighted integral is therefore dominated by individuals who are either entirely absent from Blandhol's sample (pre-2016 and post-2020 emigrants) or whose emigration carried negligible productivity implications (passive heirs, financial investors, heir-emigrants).

The treatment population—households with net taxable wealth above 100M NOK—comprises roughly 1 000–2 000 households. At an emigration rate of ∼0.2% per year, and with only 41% being active firm owners (Blandhol, 2025, Table 1), the firm event study rests on ∼ 4–8 treated emigration events over 2016–2020. The individuals driving the 12.6% revenue estimate are therefore likely mid-tier wealthy (100M–1B NOK in taxable wealth), whose firms are small enough that individual industry shocks—an oil price drop for an energy services firm, an interest rate hike for a real estate developer—can dominate the estimate.

The Bø municipality experiment introduced in Section 2 is a complementary within-Norway data point but does not by itself speak to the wealth-weighted representativeness problem. It is drawn from a completely different sampling frame than Blandhol's firm event study, and representativeness is a property of the *wealth-weighted* emigrant distribution: no local experiment on thousands of taxpayers can resolve the tail contribution of the handful of top fortunes that dominate the output integral.

7.3 Signal-to-noise in short windows

Even if the sample were cross-sectionally representative, the time-domain coverage is insufficient.

Each firm revenue path $R_i(t)$ is an observation of a stochastic process with both a drift component (the structural productivity effect η) and a diffusion component (idiosyncratic and industry shocks). For a single path observed over horizon T, the signal-to-noise ratio for extracting η scales as

$$\mathrm{SNR}_i = \frac{|\eta_i|\,\sqrt{T}}{\sigma_R}\,, \tag{30}$$

where σ_R is the annual firm-level revenue volatility. For small and mid-size firms, $\sigma_R \in [0.15, 0.30]$. With $|\eta| \approx 0.12$ (the event-study point estimate) and $T = 5$:

$$\mathrm{SNR}_i \in [0.9,\ 1.8]\,.$$

With $N \approx 5$ paths, the aggregate SNR is $\sqrt{N}\,\mathrm{SNR}_i \approx$ 2–4—marginal for inference, and contingent on the paths being independent draws. They are not: all five paths share the same macro environment (oil price collapse 2014–2016, recovery 2017–2018, COVID 2020).

The Fokker–Planck relaxation analysis (Section 5.3) provides an independent perspective. The half-life (22) of $\sim$21 years means that Blandhol's 5-year window captures less than one quarter of a single relaxation cycle. Revenue fluctuations over this horizon are dominated by the diffusion term $\sigma_R\,\mathrm{d}B_t$, not by the drift shift η that matters for the long-run productivity effect.

7.4 Revenue, wealth, and the control gap

A final identification gap separates revenue from the wealth-path variable in the Fokker–Planck framework. The GDP integral (28) is indexed by market wealth W—the stock that enters the production function via $Y = A\,K^{\alpha}\,L^{1-\alpha}$. Blandhol's outcome variable is firm *revenue* R, a flow measure related to capital through the production function and to wealth through the ownership structure.

Under the wealth–control separation documented in Sections 3.3 and 6.4, the emigrating party typically holds economic exposure but no operational role. Revenue responds to *control* decisions—investment, hiring, strategy—not to the location of the economic owner. The event-study revenue decline may therefore reflect

1. a generational transition (the heir's emigration coincides with the parent's retirement and management handover),
2. an industry shock correlated with the emigration decision (a commodity price decline that both reduces revenue and triggers the decision to move), or
3. genuinely reduced oversight from the departing controller.

Only (iii) corresponds to the productivity haircut η in the Fokker–Planck framework. Without decomposing the event-study sample by share class (A-share versus B-share migrations), the three channels are confounded.

Blandhol herself notes (p. 15) that the revenue loss could reflect either emigration being costly for the firm or a negative productivity shock driving both the revenue decline and the migration decision. Her structural decomposition (p. 32) gives $\mu^{\text{DiD}} = \mu + \text{selection} + \text{wealth accumulation}$, but extracting μ requires the structural model to be correctly specified—which assumes independent, rational emigration with no social contagion, no reference dependence, and no distinction between share classes.

7.5 Summary of the identification gap

The micro-to-macro extrapolation requires five conditions to hold simultaneously:

1. The event-study sample is wealth-weighted representative of the emigrant population (violated: top missing, Section 7.2).
2. The observation window is long enough to separate structural drift from path noise (violated: $T \ll t_{1/2}$, Section 7.3).
3. The outcome variable (revenue) identifies the productivity haircut η in the Fokker–Planck state space (violated: revenue confounds control and ownership effects, Section 7.4).
4. The tax-wealth space in which the sample is selected maps cleanly to the market-wealth space over which the GDP integral is computed (violated: nonlinear book-value distortion, Section 7.1).
5. The emigration response is identified as a response to the wealth tax, not confounded by simultaneous changes in the exit-tax regime or other tax channels (violated: the 2022 emigration wave coincided with the abolition of the five-year exit-tax lapse

rule, and many emigrants held large deferred capital gains inside holding structures accumulated via the *fritaksmetoden*).

Each condition fails independently. Together, they render the 1.3% GDP loss estimate uninformative about the true aggregate cost of wealth-tax-induced emigration.

With a sample this small, drawn from a single historical episode during a period of volatile commodity prices and rising interest rates, the 12.6% estimate cannot credibly be separated from the specific circumstances of the handful of individuals involved. As Popper (1957) argued, generalising from a single historical path requires strong structural assumptions—precisely the assumptions our contagion model calls into question.

8 Calibration

The contagion model contains several parameters. With 27 confirmed direct departures and 36 recent heir-emigrants from Kapital 400/300 families over a single policy episode, formal econometric estimation of the contagion strength is not credible—and we should not pretend otherwise. (This is, after all, the same identification problem we criticise in Section 7: overparameterising a structural model on a handful of observations from one historical path.) We therefore take a different approach: we identify the parameters that the data *can* discipline, report their values, and are explicit about the parameters that remain unidentified.

8.1 What the data identify

The visibility weight ξ. The ratio $\tilde{n}/n$ is a direct observable. From Table 2 and the Kapital 400 panel, the four tax-motivated emigration events through 2022 (E1, a shipping-family estate division, Røkke, Klaveness) carried a combined market wealth of approximately 108 bn NOK out of a total pool of 1 896 bn. This gives

$$\frac{\tilde{n}(2022)}{n(2022)} = \frac{0.057}{0.009} \approx 6.3\,.$$

For the empirical wealth distribution of the Kapital 400 (which has Pareto exponent $\hat{\alpha} \approx 1.3$), the ratio $\tilde{n}/n$ as a function of ξ can be computed exactly. Matching the observed ratio yields $\hat{\xi} \approx 1.1$: close to pure wealth-weighting ($\xi = 1$), consistent with the hypothesis that visibility scales roughly linearly with wealth.

This calculation uses direct emigrants only. Adding the 36 recent heir-emigrants identified in Section 6.4—of which the dated 2022 cases (H1–H3, H7) carry approximately 73 bn NOK—would raise the wealth-weighted emigrant fraction substantially, but the correct accounting depends on whether heir-emigrants are "visible" in the contagion sense. A few cases received extensive media coverage, while most moved quietly. The conservative approach is to treat $\hat{\xi} \approx 1.1$ as a lower bound on the effective visibility weight, with the true value possibly higher once intergenerational transfers are included.

The baseline emigration rate $\bar{\lambda}$. During the pre-reform period 2011–2017, no confirmed tax-motivated departures occurred among the approximately 300 persons tracked per year. This places an upper bound on the pre-reform baseline rate: $\bar{\lambda}\,(\tau_w^{\text{pre}} - \tau_w^*) \lesssim 1/(7 \times 300) \approx 0.05\%$ per year—effectively zero. During the post-reform period (2021–2024), four events among approximately 420 persons give a flow rate of roughly 0.24% per year. The implied jump in $\bar{\lambda}\,(\tau_w - \tau_w^*)$ is at least fivefold, consistent with the reference-dependence channel (F2) and the composite tax-differential discussion of Section 3.2.

The Pareto tail exponent $\hat{\alpha}$. The Hill estimator at the 20% tail fraction gives $\hat{\alpha} \approx 1.3$, stable across all 15 years of the panel (Section 6.2). This parameter enters the Fokker–Planck framework directly and is the best-identified quantity in the model.

External benchmarks. The identified parameters can be cross-checked against comparable estimates from other wealth-tax regimes. The Swiss cantonal decomposition of Brülhart et al. (2022) introduced in Section 1—which attributes roughly a quarter of the behavioural response to migration—is the natural anchor, even though the Swiss setting differs from Norway in rate level, federal structure, and the absence of a comparable exit-tax regime. The contagion model nests smooth and tipping responses as limiting cases: the Swiss experience operates in a regime of small, persistent inter-cantonal differentials in which the contagion channels (F2–F4) are largely inactive, and the resulting low aggregate migration response corresponds to the low-emigration equilibrium of the bistable model. The Norwegian episode corresponds to the opposite regime, in which the contagion channels are jointly activated. A single structural elasticity cannot span both.

8.2 What the data do not identify

The non-identification issues we face here are not peculiar to the contagion model or to a single episode. Kleven et al. (2020), in their canonical survey of the taxation-and-migration literature, emphasise that migration elasticities are not structural primitives: they depend on the tax differential, the anticipated persistence of the reform, the stock of prior movers, the existence and bite of exit taxes, and the broader policy regime. Extrapolating a point estimate from one reform or jurisdiction to another—as the DI exercise does—therefore requires assumptions that the data cannot discipline.

Three parameters remain unidentified with the available data, and we are explicit about why.

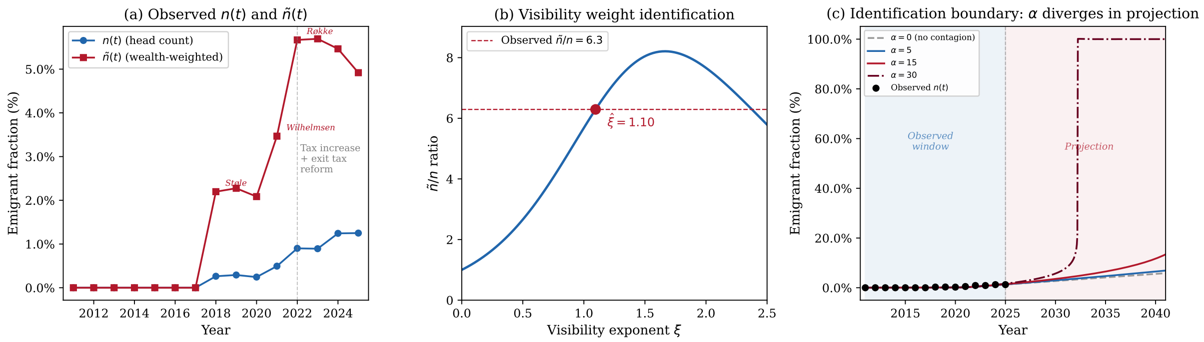

Figure 7: Data-calibrated parameters for the Kapital 400 panel (2011–2025), based on confirmed direct emigrants only (heir-emigrants excluded; see text for discussion). **(a)** Observed emigrant count $n(t)$ and visibility-weighted emigrant fraction $\tilde{n}(t)$, showing the sharp post-reform acceleration driven by a small number of high-wealth departures. **(b)** Identification of the visibility weight: the ratio $\tilde{n}/n \approx 6.3$ pins down $\hat{\xi} \approx 1.1$ given the empirical Pareto tail. **(c)** Identification boundary for the contagion strength κ. Within the observation window (shaded blue) all model trajectories are indistinguishable at $n < 1\%$, confirming that κ is fundamentally unidentified from the available data. The trajectories diverge only in projection (shaded red), illustrating the stakes of the unresolved uncertainty.

Contagion strength κ. Separating social contagion from a correlated response to a common shock (the tax increase) requires either cross-sectional variation in exposure to prior emigrants or cross-episode variation—neither of which we have. The observed $n(t)$ path is consistent both with $\kappa = 0$ (no contagion; the five departures are independent responses to the tax shock) and with $\kappa \gg 0$ (each departure lowers the threshold for the next). The S-shaped acceleration that would distinguish contagion from a common shock is not resolvable at annual frequency with five events.

Anticipation ϑ. The exit-tax channel (F4) and the contagion channel (F1) both predict acceleration during 2021–2022. Since the wealth tax increase, the exit-tax lapse abolition, and the first high-profile departures all occurred in the same narrow window, the anticipation parameter ϑ is confounded with κ. Identification would require an episode where exit-tax rules changed *without* a simultaneous wealth tax change, or vice versa.

Regime hostility δ_h. The 2021 government change and the 2022 tax increase are perfectly collinear in our sample. Separating hostility from the tax level requires cross-government variation holding the tax rate constant—available in principle from the 2005 and 2013 Norwegian government changes, but not in our Kapital 400 panel which begins in 2011.

8.3 Identification boundaries and the DI extrapolation

The non-identifiability of κ, ϑ, and δ_h from a single episode is not a deficiency of the contagion model—it is a fundamental feature of the data-generating process. Blandhol's structural model faces the same identification problem but resolves it by assumption: she imposes $\kappa = 0$ (no contagion), $\vartheta = 0$ (no anticipation), and $\delta_h = 0$ (no regime effect), reducing the model to independent rational responses. DI then extrapolates these point estimates across countries. Our contribution is to show that these restrictions are not innocuous: the observed clustering, the timing relative to exit-tax changes, and the $\tilde{n}/n$ ratio of 6.3 are all difficult to reconcile with independent decision-making, even if the data cannot pin down the exact parameter values.

The honest conclusion is a set of inequalities rather than point estimates. The emigration rate is bounded above by the observed post-reform flow ($\sim$0.24%/year among the ultra-wealthy); the visibility weight is $\hat{\xi} \approx 1.1$; the Pareto exponent is $\hat{\alpha} \approx 1.3$; and the contagion strength satisfies $\kappa \geq 0$, with the data unable to rule out either extreme. What the data *do* rule out is the DI scaling exercise, which requires all three non-identified parameters to be exactly zero and the identified parameters to be portable across countries—a conjunction of assumptions that is implausible given the evidence assembled in Sections 6 and 7.

9 Implications for the Danish debate

The DI analysis (Dansk Industri, 2026) proceeds by taking Blandhol's Norwegian estimates as given and scaling them to Danish conditions through a simple ratio of wealth-tax-revenue-to-GDP. The contagion model exposes why this procedure is unreliable.

Standard model (DI assumption)	Contagion model
Independent emigration decisions	Emigration rate depends on visibility-weighted emigrant fraction $\tilde{n}$
Responds to tax level τ_w	Responds to felt tax pressure: level + change + regime
Smooth elasticity	Tipping-point bifurcation
Linear scaling across countries	Non-scalable; depends on network structure, policy regime, anticipation
Large productivity haircut $\rightarrow$ GDP loss	Passive wealth moves; haircut ≈ 0; GDP effect negligible
Time-invariant	Path-dependent; hysteresis; rush-for-the-door
Policy: adjust tax rate	Policy: manage the tipping point

Four concrete implications for the Danish proposal:

1. **Non-scalability.** DI's linear extrapolation from Norway to Denmark is not justified. The response is a nonlinear function of distance to the tipping point, which depends on country-specific network structure and social norms. Denmark in 2026 is not Norway in 2022: there is no recent tax increase to trigger reference-dependent pressure (F2), no regime shift comparable to the 2021 government change (F3), and no advanced exit-tax discussion creating anticipatory acceleration (F4).
2. **Sequencing matters.** Exit taxes enacted *before* the cascade reduce $\bar{\lambda}$, raising κ^{crit} and preventing the bifurcation. But *announcing* exit taxes without enactment raises p, accelerating the very emigration it seeks to prevent.
3. **Regime signaling.** The policy hostility channel suggests that the *framing* of tax policy matters as much as the rate. A government that increases τ_w while otherwise signaling openness to capital may avoid triggering the cascade.
4. **Hysteresis.** Once the system tips, reducing τ_w back to the pre-reform level may not restore the original equilibrium. The return path requires ℓ to fall *below* the forward tipping value—the system has memory.

The DI report itself notes—as a reason to expect *larger* damage—that the proposed Danish wealth tax has a broader base than the Norwegian one. This observation, however, cuts both ways when viewed through the Fokker–Planck lens. To see why, it is useful to compare the assessment regimes of the three relevant jurisdictions: Norway, Denmark (as proposed), and Switzerland.

Norway. The Norwegian wealth tax base departs sharply from market value. Unlisted shares are recorded at the company's fiscal book value of equity, then multiplied by a statutory assessment fraction of 80% (*verdsettingsrabatt* of 20%). Since book-to-market ratios for unlisted firms are typically $\theta \approx 0.3$–0.5, the effective assessment relative to true market wealth is $\beta\,\theta \approx 0.24$–$0.40$—the tax base is roughly a quarter to two-fifths of market value (Theorem 1). Primary housing is assessed at only 25% of estimated market value up to NOK 10M (70% above). Debt, by contrast, is deducted at face value. The result is a strongly anisotropic drift field: asset classes face different effective tax rates, and leverage amplifies the wedge (Equation (18)). The drift-shift symmetry is broken, creating incentives to tilt portfolios toward low-β assets (unlisted equity, primary housing) and to lever up against them.

Denmark (proposed). The Danish proposals are based on Danmarks Statistik's wealth assessment (*formueopgørelse*), which records unlisted businesses at an estimated market value derived from the relationship between equity and share price for listed peers. Listed shares enter at market price; housing enters at the public property assessment (*ejendomsvurdering*); pension savings enter at their accumulation value. Under the Social Democrat proposal, the first 10M DKK of primary-residence value (doubled for couples) is excluded from the base. The critical difference from Norway is that business assets are *not* discounted to book value. If all asset classes are assessed at or near market value, the assessment fractions satisfy $\beta_i \approx 1$ for all i, and the drift shift (Equation (17)) becomes approximately uniform: the tax is neutral in the Fokker–Planck sense. A Danish wealth tax would therefore avoid the portfolio distortions that plague the Norwegian system—precisely the distortions that Blandhol (2025) observes in her event-study sample.

Paradoxically, the broader base that DI cites as a reason for *greater* damage is, in the symmetry framework, a reason for *less* distortion. The Danish proposal eliminates Channel 1 symmetry breaking (Section 5.2): there is no built-in incentive to shift wealth from listed to unlisted assets, from financial to real estate assets, or to lever up against under-assessed collateral. The economic response to such a tax should therefore be governed by the smooth, neutral drift-shift—not by the anisotropic portfolio reallocation that drives much of the Norwegian experience.

Switzerland. The Swiss system occupies an intermediate position. Listed shares enter the cantonal wealth tax base at year-end market price. Unlisted shares, however, are valued using the *Praktikermethode* prescribed by Federal Tax Administration Circular 28: a weighted average of twice the capitalised earnings value and once the substance value (book equity including latent reserves),

$$V_{\text{tax}} = \frac{2\,V_{\text{earn}} + V_{\text{sub}}}{3}. \tag{31}$$

The earnings value is the average of recent net profits capitalised at a reference rate (8.75% for the 2024 tax year). For profitable, asset-light firms the resulting valuation can be substantially below a market transaction price; for asset-heavy or loss-making firms it converges toward book equity. The assessment is thus neither pure book value (Norway) nor pure market value (Danish proposal), but a formulaic hybrid that introduces moderate—though not extreme—anisotropy into the drift field. Minority shareholders (below 50%) may additionally claim a 30% discount.

The three regimes can be summarised in terms of the assessment fraction β for unlisted business equity:

	Norway	**Switzerland**	**Denmark (proposed)**
Valuation basis	Book equity	Praktikermethode	Estimated market value
Statutory discount	20%	0–30% (minority)	0%
Effective β (typical)	≈ 0.3	≈ 0.5–0.8	≈ 1.0
Drift-shift symmetry	Strongly broken	Partially broken	Approximately preserved

The ordering is clear: the Norwegian system creates the largest portfolio distortions and the strongest incentive to warehouse wealth in underassessed vehicles; the Danish proposal creates the least. It is therefore not valid to extrapolate the Norwegian behavioural response to Danish conditions, as the symmetry-breaking channel that drives portfolio reallocation in Norway would be largely absent.

A further irony concerns rate levels. The proposed Danish rate of 0.5% is comparable to the *effective* wealth tax levied in Stadt Zürich. Stadt Zürich applies a progressive cantonal wealth tax reaching a simple rate of 3‰ above CHF 3.158M, which after the cantonal multiplier (95% in 2026) and the municipal multiplier (119%) yields an effective marginal rate of approximately 0.47% at CHF 5M—nearly identical to the Danish 0.5%. While most Norwegian emigrants settle in low-tax cantons (Zug, Schwyz, Lugano), some maintain offices or even residences in Stadt Zürich, accepting a wealth tax comparable to the very rate that dominates Danish political debate. The critical difference lies in the exemption threshold: Zürich grants only CHF 80 000 per individual (roughly 400 000 DKK), whereas the Danish proposal exempts 25M DKK per single taxpayer. A Dane with net wealth of 30M DKK would pay 0.5% on only 5M DKK (25 000 DKK per year), while a Zürich resident with equivalent wealth (approximately CHF 4M) pays the progressive levy on nearly the entire amount—a burden several times larger.

The aggregate revenue comparison reinforces the point. Norwegian wealth tax revenue has grown to approximately NOK 34 billion in 2025, or roughly 0.6% of GDP. Swiss cantonal and municipal wealth taxes generate approximately 3.6% of total tax revenue, corresponding to about 1% of GDP—more than any other OECD country. The Danish proposal, by contrast, targets 6–7 billion DKK from approximately 22 000 taxpayers, or roughly 0.15% of Danish GDP: a fraction of what both Norway and Switzerland already collect.

The total tax burden, exit taxes, and the *fritaksmetoden*. The wealth tax alone does not explain the Norwegian emigration incentive. Blandhol (2025) and the DI report focus exclusively on the wealth tax rate, but the marginal Norwegian emigrant faces a *combined* burden of wealth tax, dividend tax, and latent capital gains tax. As Bjerksund and Schjelderup (2021) and Bjerksund et al. (2024) document, the *fritaksmetoden* (participation exemption) allows holding companies to receive dividends and realise capital gains tax-free at the corporate level, creating large pools of retained earnings with deferred personal tax liabilities. When the owner eventually extracts these gains—whether as dividends (taxed at 37.84% on amounts above the risk-free return) or by selling shares—the effective combined tax rate on corporate profits distributed to individuals approaches 52%. Emigration offers a way to crystallise these latent gains under a more favourable regime.

The exit tax is central to this calculus. Until 29 November 2022, Norwegian exit tax on unrealised share gains *lapsed entirely* if the emigrant waited five years without realising gains abroad. This created an unambiguous crystallisation opportunity: emigrate, wait, and the latent tax liability vanishes. The timing is not coincidental—the 2022 emigration wave peaked precisely as the government announced it would close this window. The anticipatory acceleration channel (F4 in Section 2) is visible in the data: emigrants rushed to leave before the five-year lapse was abolished. The subsequent tightening on 20 March 2024 imposed a twelve-year payment ceiling and triggered proportional exit-tax payments on dividends received abroad, but the damage to the credibility of the regime was done.

The legality of the tightened Norwegian rules is itself contested. Free movement of persons is a fundamental pillar of the EEA Agreement, and CJEU case law (notably *National Grid Indus*, C-371/10) holds that exit taxes on unrealised gains are permissible only if payment can be deferred without interest or security requirements. Banoun (2025) has filed a formal complaint with the EFTA Surveillance Authority arguing that Norway's post-2022 exit tax rules—which require payment within twelve years regardless of realisation, and trigger proportional payments on dividends received abroad—violate Articles 28, 31, and 40 of the EEA Agreement. The case (No. 93706) is under active examination by ESA (EFTA Surveillance Authority, 2025). Switzerland, though not an EEA member, enjoys equivalent free-movement protections through the bilateral Agreement on the Free Movement of Persons (in force since 2002), which would subject Norwegian exit tax rules to similar proportionality constraints for moves to Switzerland.

Denmark has its own participation exemption—the EU Parent-Subsidiary Directive makes this standard—and Danish holding companies likewise accumulate untaxed retained earnings. Denmark also has an exit tax (*fraflytterbeskatning*) that deems unrealised gains realised upon emigration. Crucially, however, for moves within the EU and the Nordic area the Danish exit tax can be deferred indefinitely without posting collateral and without interest charges—precisely the design that CJEU jurisprudence requires. The Danish exit tax is thus consistent with free-movement principles but is, for practical purposes, non-binding: a wealthy Dane can emigrate to, say, Switzerland and defer the exit tax obligation indefinitely.

The implication cuts in two opposing directions. On the one hand, the absence of an effective exit tax means that a future Danish wealth tax could trigger emigration without the friction that an enforceable exit tax would provide. On the other hand, the Norwegian emigration wave was driven in large part by the *interaction* between the wealth tax increase, the accumulated *fritaksmetoden* deferral wedge, and a time-limited exit-tax loophole that was about to close—a combination that has no analogue in the Danish setting, where the proposed wealth tax would be new and no comparable crystallisation window exists. The DI report's linear scaling from Norwegian to Danish conditions ignores all of these asymmetries.

Coordination, embeddedness, and the transportability of estimates. Three strands of the prior literature bear directly on the Danish choice. First, Agrawal et al. (2025), exploiting the Madrid regional wealth tax abolition, argue that unilateral wealth taxation is structurally vulnerable to tax competition, and that the fiscal externalities of top-wealth emigration extend well beyond the wealth tax base itself. Emigrating ultra-wealthy owners take with them income, dividend, capital gains, and firm-level tax liabilities whose combined size typically exceeds the direct wealth-tax loss. The implication is not that wealth taxation is futile but that its fiscal effects are most naturally evaluated at the level of *coordinated* policy across jurisdictions that share a common pool of mobile taxpayers. Second, the embeddedness evidence of Young et al. (2016) introduced in Section 2 requires an additional qualification when invoked in cross-country comparisons:

the low US millionaire interstate migration rate reflects not only local social capital and family attachment but also the distinctive US citizenship-based tax regime. Comparisons that invoke the US as evidence of low mobility without acknowledging both factors will systematically understate the migration margin in small, open, domicile-based economies. Third, the non-transportability of migration elasticities established by Kleven et al. (2020) and developed in Section 8.2 compounds the first two points: estimates recovered from one reform or jurisdiction are not structural objects that can be lifted into another regime. Taken together, these three observations reinforce the central claim of the present paper. The DI linear extrapolation from Norway to Denmark rests on assumptions—no contagion, no anticipation, no regime effect, portable elasticities, symmetric assessment—that neither the Norwegian data nor the wider migration literature can support.

The Danish proposal is, by international standards, a mild measure; the political reaction it provokes reflects the contagion dynamics this paper models rather than an objective assessment of its economic burden.

10 Conclusion

The Norwegian wealth-tax emigration episode has been treated in the Danish policy debate as a natural experiment from which a portable elasticity can be extracted and scaled to other countries. This paper has argued that the episode is better understood as a tipping event driven by social contagion, reference-dependent tax pressure, policy regime hostility, and exit-tax anticipation—four channels that interact nonlinearly and produce path-dependent dynamics with hysteresis.

The contagion model yields a sharp theoretical prediction: the emigration system undergoes a saddle-node bifurcation at a critical contagion strength $\kappa^{\text{crit}} = 4$, above which two stable equilibria coexist and the system can jump discontinuously between them. The Norwegian data are consistent with such a jump, but the contagion strength itself is not identified from a single episode. What the data do identify—the Pareto tail exponent ($\hat{\alpha} \approx 1.3$), the visibility weight ($\hat{\xi} \approx 1.1$), and the composition of emigrating wealth—is sufficient to expose five independent failures in the micro-to-macro extrapolation that yields the 1.3% GDP estimate. The most consequential failure is representativeness: the wealth-weighted integral that determines the GDP effect is dominated by individuals who are either absent from the event-study sample or whose emigration carried negligible productivity implications. The 36 recent heir-emigrants documented here—carrying 127 bn NOK in pure economic exposure with no attached human capital—are the clearest illustration.

For Denmark, the implications are specific. The proposed wealth tax would operate on an approximately market-value base, preserving the drift-shift symmetry that the Norwegian book-value system breaks. It would be introduced without a simultaneous regime shift, without a closing exit-tax window, and without the accumulated deferral wedge created by decades of the *fritaksmetoden*. None of the four channels that pushed the Norwegian system past its tipping point would be activated at comparable intensity. The DI extrapolation, which requires all four to be irrelevant, therefore answers the wrong question: it estimates what would happen if Denmark replicated the Norwegian episode, not what would happen if Denmark introduced a wealth tax under Danish conditions.

The deeper lesson is methodological. When a behavioural response exhibits tipping-point dynamics, the standard toolkit of micro-elasticities and linear scaling breaks down. The relevant policy question is not "what is the elasticity?" but "how far is the system from the tipping point?"—a question that depends on country-specific network structure, institutional design, and policy sequencing, and that cannot be answered by extrapolation from a single foreign episode.

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A Data sources and verification

This appendix documents the data sources, collection methodology, and cross-checks that underlie the empirical analysis.

A.1 The Kapital 400 panel

The primary data source is the annual Kapital 400 list published by Kapital magazine (Hegnar Media), which estimates the net worth of the 400 wealthiest Norwegian-connected individuals. The list data are hosted on the Finansavisen web platform at `finansavisen.no/kapital`. We construct a panel of 569 unique persons covering 2011–2025 (15 years, approximately 5 400 person-year observations) by scraping individual person pages incrementally across multiple list years and merging with the current (2025) edition. The panel contains all 400 persons on the current list plus 169 who appeared in earlier editions but have since dropped off (due to death, wealth falling below the entry threshold, or editorial reclassification).

For each individual-year observation the panel records:

1. a unique person identifier and URL slug (persistent across years),
2. estimated net worth in NOK billions (the headline Kapital figure),
3. taxable assets (*ligningsformue*) where available from Skatteetaten filings, and
4. tax paid, where reported.

The net worth figures are Kapital's editorial estimates and should not be confused with the tax authority's assessed wealth (*ligningsformue*), which follows statutory assessment rules (book-value fractions, housing discounts, etc.). The two series diverge substantially for individuals with large unlisted equity holdings.

Coverage. For the 400 persons on the current (2025) list, coverage is complete for 2020–2025 but incomplete for earlier years: the online Kapital Index retains historical person pages only for current list members, so the backfilled data thins with age (168 entries for 2011, rising steadily to 400 by 2020). The 169 historical dropoffs partially compensate: because their person pages were scraped while they were still on the list, they contribute observations in years where current-list backfill is sparse (e.g. 107 additional observations in 2020). Combined, the panel contains 410 observations in 2020 and 444 in 2022, exceeding 400 when dropoffs overlap with current members. The summary statistics reported in the paper (total wealth, Pareto tail exponents, concentration measures) are computed from the full published list for each year, not from the panel subset. A separate summary file (`tail_summary.csv`) records the published aggregates.

Matching. Individuals are tracked across years using a combination of the Kapital Index person identifier and editorial slug. Name changes (marriage, deed poll) and family consolidations (where Kapital merges or splits family entries) are handled manually.

A.2 Emigrant identification

We identify tax-motivated emigrants from the Kapital 400 panel using four complementary methods:

1. **Ligningsformue drop (LIG).** A sharp decline in taxable assets (typically to near zero or NaN) in consecutive publications signals that the individual is no longer filing Norwegian tax returns. This is the strongest single indicator.
2. **Tax paid decline (TAX).** A progressive or sudden decline in reported tax paid, consistent with relocation to a lower-tax jurisdiction.
3. **Residence flag (bosted).** The Kapital Index profile page reports the individual's stated country of residence. We cross-check this against LIG and TAX signals.
4. **Case study / news.** For high-profile departures (Røkke, Dahl, Moan), the emigration date and destination are confirmed from news reports.

Each identified emigrant is classified as either *direct* (the individual emigrated personally) or *heir* (wealth was transferred to a next-generation family member who then emigrated or already resided abroad). The dating method is recorded for each entry.

Completeness. The emigrant list covers the universe of Kapital 400 members. It does not capture individuals who emigrated *before* entering the list or who never qualified for inclusion. The Kapital 400 "utflyttet" (emigrated) flag identifies 67 persons in the 2025 list. Of these, 23 are confirmed as recent tax-motivated direct emigrants in our data; the remaining 44 are long-term expatriates (e.g. John Fredriksen, resident in London/Cyprus since the 1990s; Torstein Hagen, resident in Switzerland since the 2000s; Ole Andreas Halvorsen, resident in Connecticut) whose emigration predates the 2022 policy episode and is not tax-motivated in the sense modelled here.

Four of our identified direct emigrants no longer appear on the 2025 Kapital 400 list, having fallen below the entry threshold of 1.25 bn NOK. Their emigration status is confirmed from earlier list years and news sources.

A.3 Heir-emigrant identification

Heir-emigrants are identified from two sources:

1. A Finansavisen investigative article (August 2025) documenting intergenerational wealth transfers to emigrated heirs, listing 24 named cases with estimated inherited

wealth.

2. The Kapital 300 list (October 2025), which for the first time included next-generation heirs as separate entries, yielding 44 foreign-resident entries.

The two sources overlap partially: 14 heirs appear in both, with some name differences (the August list grouped siblings while the October list split them into individual entries) and wealth updates (reflecting six months of market movements and editorial revisions). The paper's count of 36 recent heir-emigrants is obtained by: (i) splitting combined entries into individuals, (ii) merging the two sources, and (iii) excluding long-term foreign residents whose emigration predates the policy episode and data artefacts (individuals flagged as "utflyttet" but resident in Norway).

A.4 Cross-checks performed

A Python verification script (`data/verify_data.py`) performs the following automated cross-checks against published reference values:

1. **Aggregate totals.** The panel total wealth for 2025 matches the published figure of 2 390.85 bn NOK exactly.
2. **Individual spot-checks.** The 2025 wealth of 18 named individuals (including all top-10 and all identified emigrants still on the list) matches the interactive Kapital Index to within 1%.
3. **Emigrant coverage.** Of 27 identified direct emigrants, 23 carry the "utflyttet" flag on the 2025 list; the remaining 4 have fallen below the entry threshold.
4. **Panel consistency.** No entries with negative wealth; 7 extreme year-on-year changes (>200% growth or >80% decline) are individually verified as genuine (e.g. inheritance events, IPOs, or editorial revaluations).
5. **Pareto tail stability.** The Hill estimator at the 20% tail fraction yields a mean $\hat{\alpha} = 1.35$ with coefficient of variation 4.1% across 2011–2025, confirming the stability claimed in Section 6.2.
6. **Heir cross-check.** The August and October heir lists are reconciled; wealth discrepancies exceeding 10% (4 cases) are traced to entry splitting (combined sibling entries separated into individual records) or editorial revisions.

The verification script is included in the replication archive. The underlying data files use the same coded identifiers as the paper (Tables 2 and 3); individual names are replaced by codes so that the replication archive can be shared without compromising the privacy protections described below.

A.5 Data protection

The Kapital 400 list is published annually by Finansavisen as a journalistic product; the wealth estimates, rankings, and emigration flags used in this paper are drawn from that published source. Processing of this publicly available data for academic research purposes is permitted under Article 6(1)(e) of the General Data Protection Regulation (task carried out in the public interest) and the Norwegian *personopplysningsloven* § 8, which provides a national legal basis for processing personal data for scientific research purposes, subject to the safeguards in Article 89(1).

Consistent with the privacy protections in the body of the paper, the appendix and replication archive observe the following principles:

1. Blandhol-window emigrants (2016–2020) and recent heir-emigrants are identified only by coded labels, not by name.
2. Long-term expatriates and high-profile post-reform departures are named only where the individual's emigration is a matter of established public record (extensive news coverage, public statements, or listing on the published Kapital 400 "utflyttet" register).
3. The replication data files use the same coded identifiers as the published tables. Researchers requiring access to the linked panel—which contains person identifiers matching the Kapital Index—may request it from the authors subject to a data-use agreement specifying that individual-level records will not be republished.