Vulnerability and portfolio flows

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Fear of portfolio flows

Portfolio flows are unusually important in India, and have grown dramatically.

- If India has just become ‘flavour of the month’, can portfolio flows capriciously reverse?
  If portfolio flows into India driven by factors outside India, this is a disturbing new kind of risk.
- Do foreign investors engage in herding? Is equity derivatives trading by foreign investors dangerous?

Part I

Evidence on herding

Measuring herding

- If foreign investors think alike, days with a net inflow will have a small gross outflow and vice versa.
- On date t, i_t gross inflow and o_t gross outflow. We propose:

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o_t	0	500	1000
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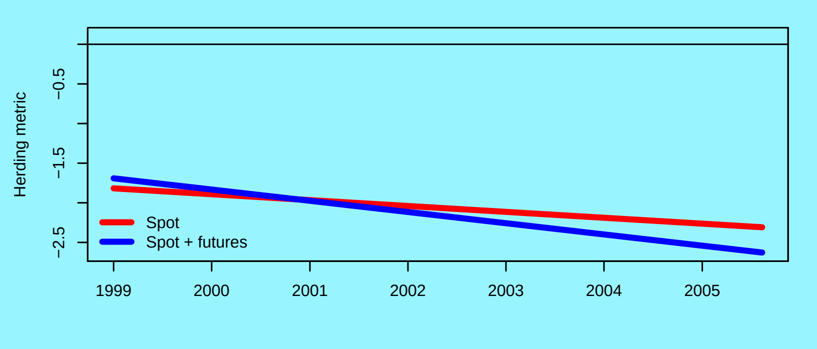
- Compute h_t using daily data. Two variants: including derivatives or excluding them.
- A key factor of interest is the time trend. Over the years, as more FIIs work in India, as asymmetric information eases, as positions become bigger, has herding diminished?

Summary statistics of h_t from 1999-2005

Variant	Min.	Q1	Median	Mean	Q3	99%	Max
Spot+futures	-10.3	-2.6	-1.9	-2.2	-1.4	-0.5	-0.1
Spot	-9.6	-2.5	-1.8	-2.1	-1.3	-0.5	-0.1

Time trend?


Herding metric
−0.5
−1.5
−2.5
1999
2000
2001
2002
2003
2004
2005
Spot
Spot + futures

Part II

Understanding the sharp rise in portfolio flows

Foreign ownership of Indian stocks, 2001-2005

Year	(%)	(Rs. Trn)
2001	8.5	0.45
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2003	6.9	0.44
2004	10.1	1.20
2005	11.1	1.83
Variance	2.77	

What happened 2003-2005? India became the ‘flavour of the month’?

Hierarchy of explanations:

- External conditions
- Macro factors
- Firm characteristics.

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- Data for roughly 1000 firms for five years.
- Ownership structure observed every quarter. Write models explaining FII ownership at the firm level.
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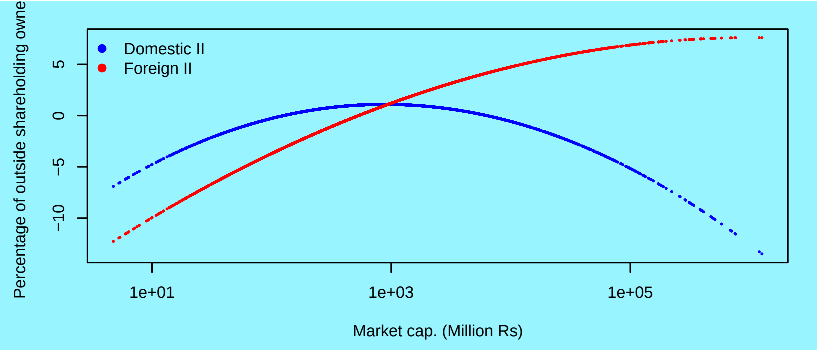
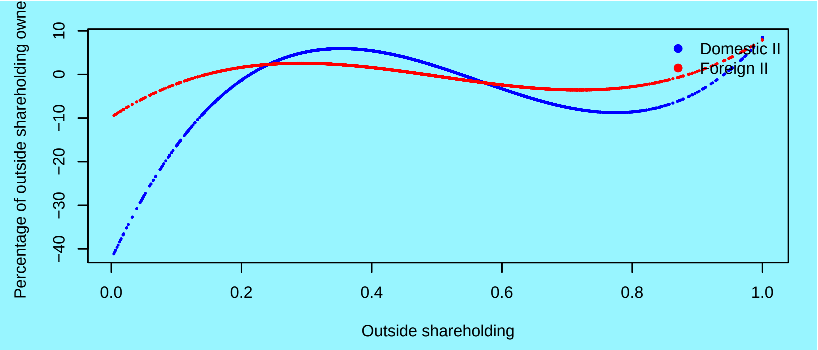
- Size, liquidity, corporate governance matter.
- Strong nonlinearities of response.
- Heckman model - selectivity vs. propensity are distinct. First firms ‘graduate’ into a set that is in the FII investment universe; after that their characteristics influence the share owned by foreigners.
- Identical approach applied to domestic & foreign institutional investors.

Role of size


Domestic II
Foreign II
Percentage of outside shareholding owne
5
0
−5
−10
1e+01
1e+03
1e+05
Market cap. (Million Rs)

Role of outside shareholding



External factors or internal factors?

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2001	2002	2003	2004	2005	Std. Dev.
11.06	10.65	10.02	11.87	11.82	0.62
(8.12)	(7.46)	(7.29)	(8.88)	(9.02)	

- Firm-level factors explain a lot : Variance from 2.77 $\rightarrow$ 0.62. The rise in FII ownership of Indian stocks was a lot about changes in the size, liquidity and corporate governance of Indian stocks.

Summary of the evidence

- Foreign investors don't seem to be herding
- Over time, the extent of herding has diminished (more so if we include derivatives trading)
- The bulk of the sharp change in foreign investment in Indian stocks was caused by changes in the size, liquidity and ownership structure of Indian firms.
- These results do not pertain to financial globalisation in general. They are rooted in the Indian institutional setting.

Thank you.