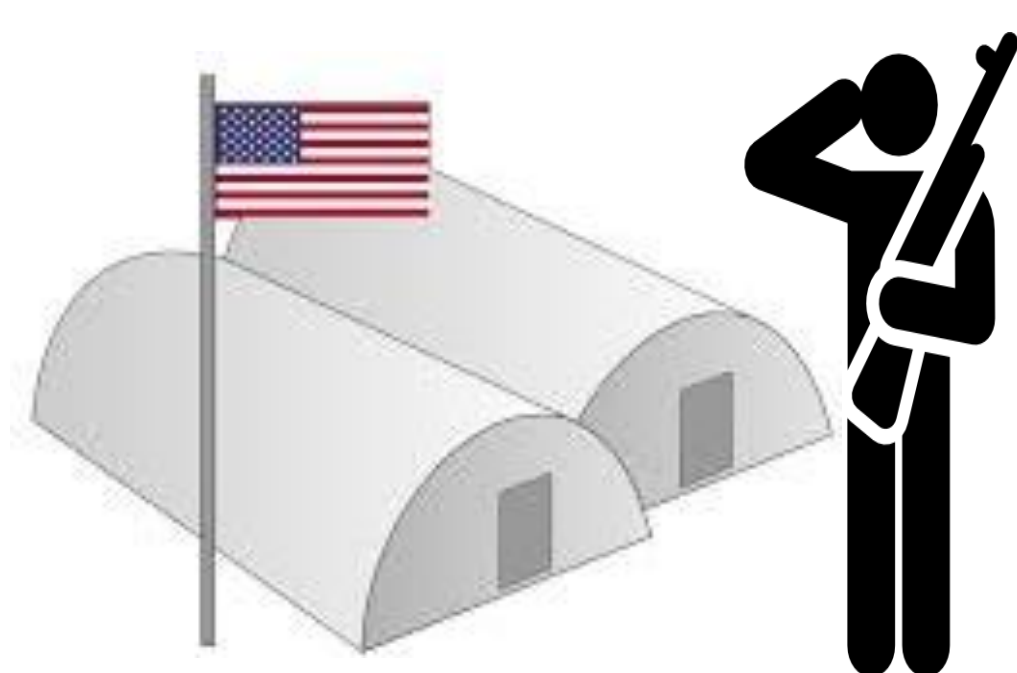


# Occupied investors – concentrated portfolios:

## How foreign military presence impacts asset allocation

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### Investors exposed to US military presence in Germany show ...

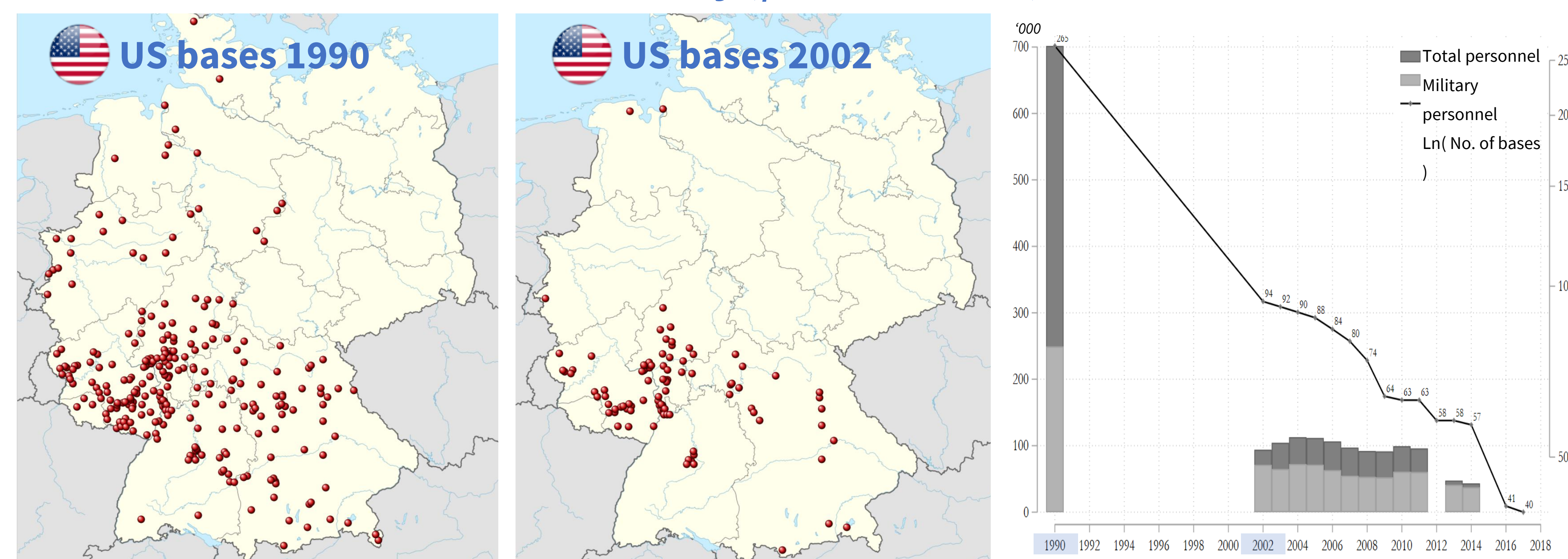
... lower engagement in foreign (especially US) stocks

... less diversified portfolios, both in stocks as well as (mutual) funds

### Does long-term exposure to a foreign culture affect domestic financial decision-making?

- **Culture determines** (financial) **decision-making** and economic outcomes (e.g., Guiso et al., 2006)
  - **Cross cultural influences** mainly researched via migrants / **vertical transmission** (e.g., Bisin and Verdier 2011)
  - **NEW: Impact of cultural ‘import’ into domestic environment** of individuals / horizontal transmission
  - Large scale cultural exposure via military presence (people, institutions, buildings, cars, etc.)
- **Can cultural ‘import’ influence decision-making** / economic outcomes of individuals in their own environment?

### Presence of US forces in Germany (post cold war)



### Identification or why military bases?

- ✓ Locations of bases are chosen based on strategic and tactical considerations by bureaucrats and not by economic considerations
- ✓ Selection of deployed personnel is done by superiors based on unit and function not by deployed persons themselves
- ✓ Limited need of contact or assimilation to host country culture and contact to individuals due to policy (at times even forbidden or at least unwanted) and short duration of tours
- ✓ Provision and establishment of institutions from home country leading to limited exchange and ‘caricatured Americanness’ or ‘little Americas’ (Cohen 1977; Sigal 1960)
- ✓ Germany and the USA do not share a (direct) common border eliminates potential cross-border influence
- ✗ However, selection of Germans to living close to a base cannot be controlled but unlikely due to locally attached nature of Germans (Schneider et al. 2019)

### DATA

#### Bank/brokerage data (direct-to-customer)

- Sample of ~250k individual customers of large German direct-to-customer retail bank
- Full set of security transactions/holdings for 15 years (2002–17) for ~140k active investors (brokerage)
- Customers’ demographics include age, income indicator, AuM/wealth, zip code, occupation, etc.

#### US military bases in Germany

- Manually collected locations of US military bases in Germany reported by the Department of Defense
- Base characteristics include size, buildings (number/size), and different personnel counts
- Available annually for 1990 and 2002 – 2017 (except 2015)

#### Regional data (controls on state, county, and district levels)

- Economic data, e.g., GDP, GDP financial share, employment, home ownership, empty flats
- Demographics e.g., education level, population (density), shares of males, foreigners, and expellees

### Estimation & Results

$$y_{ijt} = \alpha + \beta \text{Base}_{it} + \delta \text{Zone}_i + \gamma' \text{Investor}_{it} + \theta' \text{Region}_{jt} + \text{Year}_t + \varepsilon_{it}$$

	(3) #Stocks	(4) I: US stocks[0/1]	(5) US stocks[%]	(6) Abroad stocks[%]
I: Base_1990=1	-.2816*** (-2.71)	-.0130** (-2.05)	-0.0034 (-1.04)	-.0039 (-.72)
I: Base_1990=2	-.3446** (-2.36)	-.0302*** (-3.39)	-.0148*** (-3.23)	-.0289*** (-3.99)
Adjusted R <sup>2</sup>	.13	.05	.01	.01
I: Base_2002=1	.0037 (.02)	.0061 (.62)	.0062 (1.13)	.0027 (.34)
I: Base_2002=2	-.3260** (-2.14)	-.0267*** (-2.72)	-.0106** (-2.07)	-.0344*** (-4.08)
Adj. R <sup>2</sup>	.13	.05	.01	.01
N	328,273	328,273	328,273	328,273
Investor & regional controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

	Bases in 1990		Bases in 2002	
	(1) Log HHI Stocks	(2) Fund share	(3) Log HHI Stocks	(4) Fund share
I: Base=1	.0186** (2.25)	-.0040 (-.81)	.0037 (.30)	-.0046 (-.67)
I: Base=2	.0313** (2.16)	-.0120* (-1.68)	.0451*** (2.61)	-.0187*** (-2.89)
Investor & regional controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Adj. R <sup>2</sup>	.28	.08	.28	.08
N	328,273	406,852	328,273	406,852

### Robustness

- **Alternative base exposure measure** with similar results increasing in base exposure (rank-based exposure, IHS of total/military personnel, PCA first component from base characteristics, and variations of distance)
- **Sample restrictions** (based on investor characteristics) and exclusion of most commonly held stocks or most commonly held abroad stocks with similar results
- **Simple geographical controls** (Longitude, latitude, and average altitude of zip codes)

### Potential alternative explanations

**Social interactions/ peer effects** between Germans and deployed personnel (Hong et al., 2004 Duflo and Saez, 2002; Kaustia and Knüpfer, 2011)

- Literature on expatriates finds only low-levels of interaction in „planted“ situations (Cohen 1977)
- Only limited need for assimilation and contact to local population stemming from short tours and availability of US institutions at base location and undesired fraternization even in allied countries
- Cultural impact of US bases described for Asia shown to be based on pure vicinity (Ogura, 2003)
- Peer effect expected to vanish after base closure; be stronger for still active bases (↯ results above)
- **Local bias** across (virtual) borders due to bases (Baltzer et al., 2013) should vanish after base closure
- **Informational advantage** e.g., via better command of English language (Grinblatt & Keloharju, 2001)
  - Should also apply to UK stocks, but these do not show any sizeable or significant effect
    - Same is true for a better familiarity to case law based legal or market based financial system
  - Better access to US specific (informal) information/news the effect should vanish after base closure