The economic impact of FDI in Ukraine
- Summary of Conclusions -

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Structure

1. Introduction
2. Data and concepts
3. Inward FDI stock of Ukraine
4. Economic impact of FDI companies
   - 4.1 Aggregate economy
   - 4.2 Sectoral impact analysis
5. Conclusions

Annex

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1. Introduction

- FDI can play an important role for Ukraine
  - Improved access to capital: Higher investments
  - Improved productivity: Know how and networks of investors, often multinational companies (MNC)

Aim of this Policy Briefing and accompanying, more detailed Policy Study:

- Contribute to a better understanding of the FDI *stock* (section 3)
  - Size, development and structure of inward FDI stock of Ukraine

- Analyse the economic impact of FDI on Ukraine
  - Larger size and higher productivity of companies with FDI in ownership structure (FDI companies) compared to non-FDI companies?
  - On aggregate (section 4) and by industry (section 5)

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2. Data and concepts

- Essence of FDI common definition: *A lasting interest of of foreign investor in a company: Long-term relationship between company and investor and significant degree of influence of investor through ownership of 10% and more of company* (synopsis of OECD benchmark definition, BDM4)

- FDI not necessarily investment in economic perspective:
  - „Brownfield investment“: Buying existing company – no economic investment
  - „Greenfield investment“: Starting a new company – economic investment

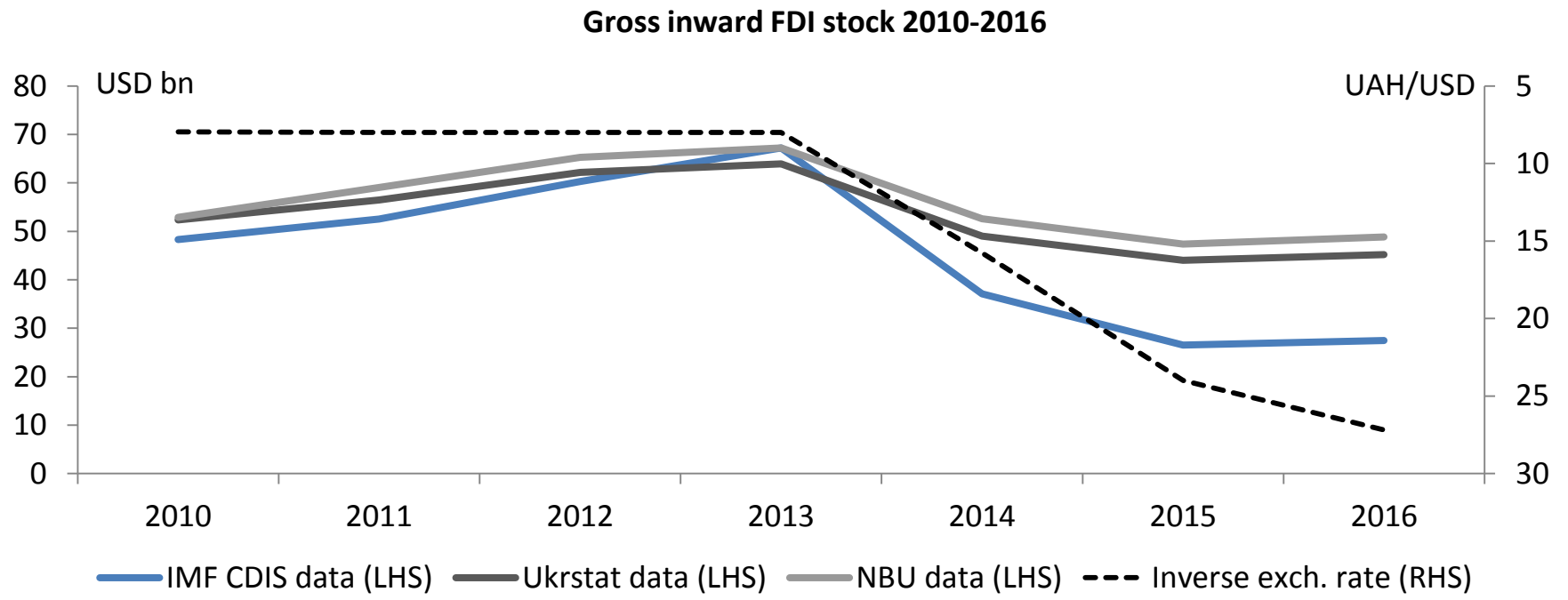
- Three data series for FDI stock analysis
  - Three data series, all originally based on Ukrstat data
  - Ukrstat, NBU, IMF Coordinated Direct Investment Survey (CDIS) by Ukrstat
  - IMF CDIS series is best with regard to current value of stock

- Ukrstat structural data for economic impact analysis
  - Data for non-financial corporations only
  - Distinguishes GVA, employment, etc. of FDI companies vs. non-FDI companies

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3. Inward FDI stock of Ukraine: Development



Source: NBU, Ukrstat, IMF Coordinated Direct Investment Survey
Note: End of year values

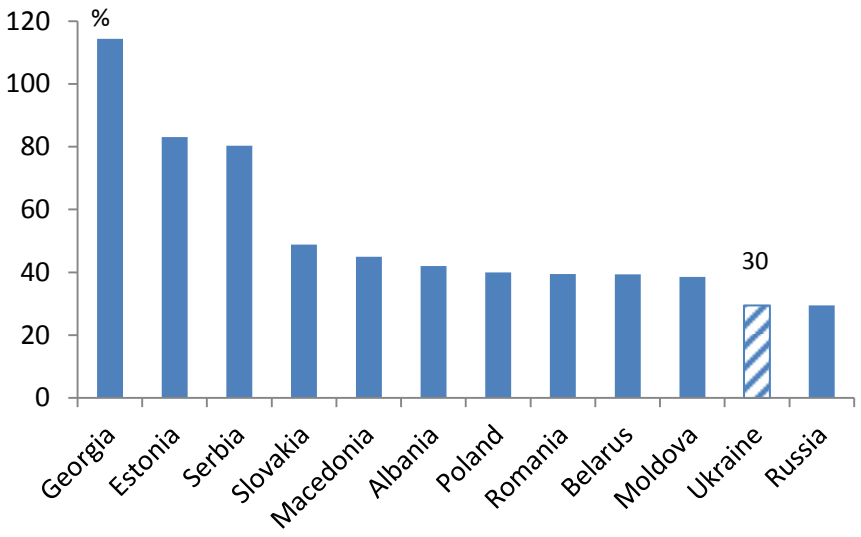
- Drastic fall of FDI stock 2013 - 2016
- Reasons for fall: Exchange rate adjustments, value adjustments of FDI
- Lower value in IMF CDIS series more accurate due to broader capital measure for valuation of unlisted companies
- Ukrstat/NBU data mainly reflect exchange rate depreciation

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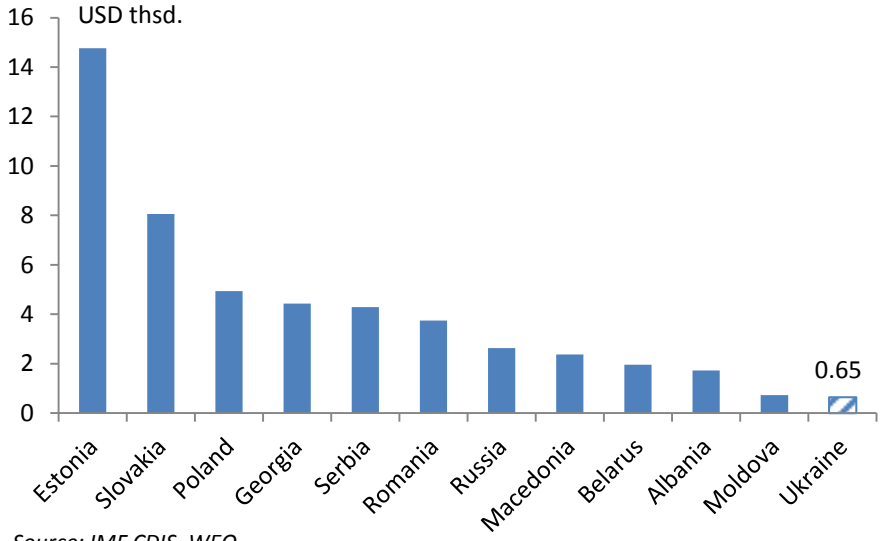
Inward FDI stock of Ukraine: International comparison

FDI as a share of GDP, 2016



Source: IMF CDIS, WEO

FDI per capita, 2016



Source: IMF CDIS, WEO

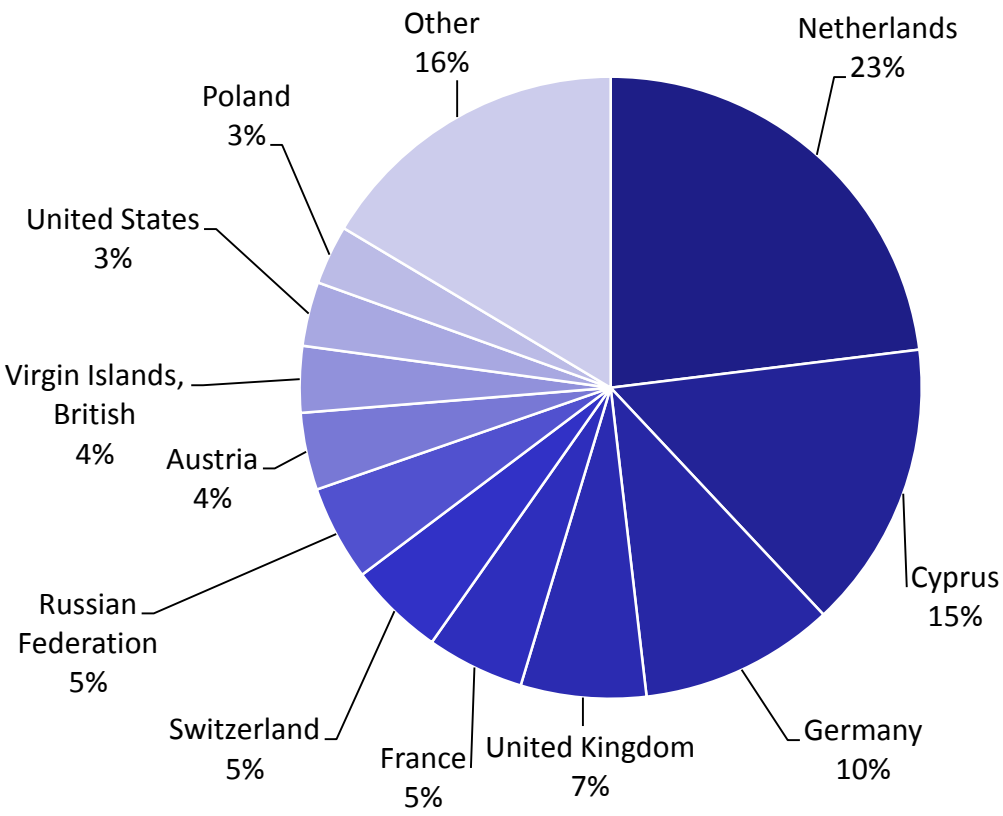
- Ukraine lags behind benchmark countries in both FDI/GDP and FDI/capita
- FDI/capita is somewhat affected by exchange rate depreciation
- Both indicators clearly reflect that Ukraine has not been successful at attracting FDI in the past

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Inward FDI stock of Ukraine: Source countries

FDI by source countries, 2016



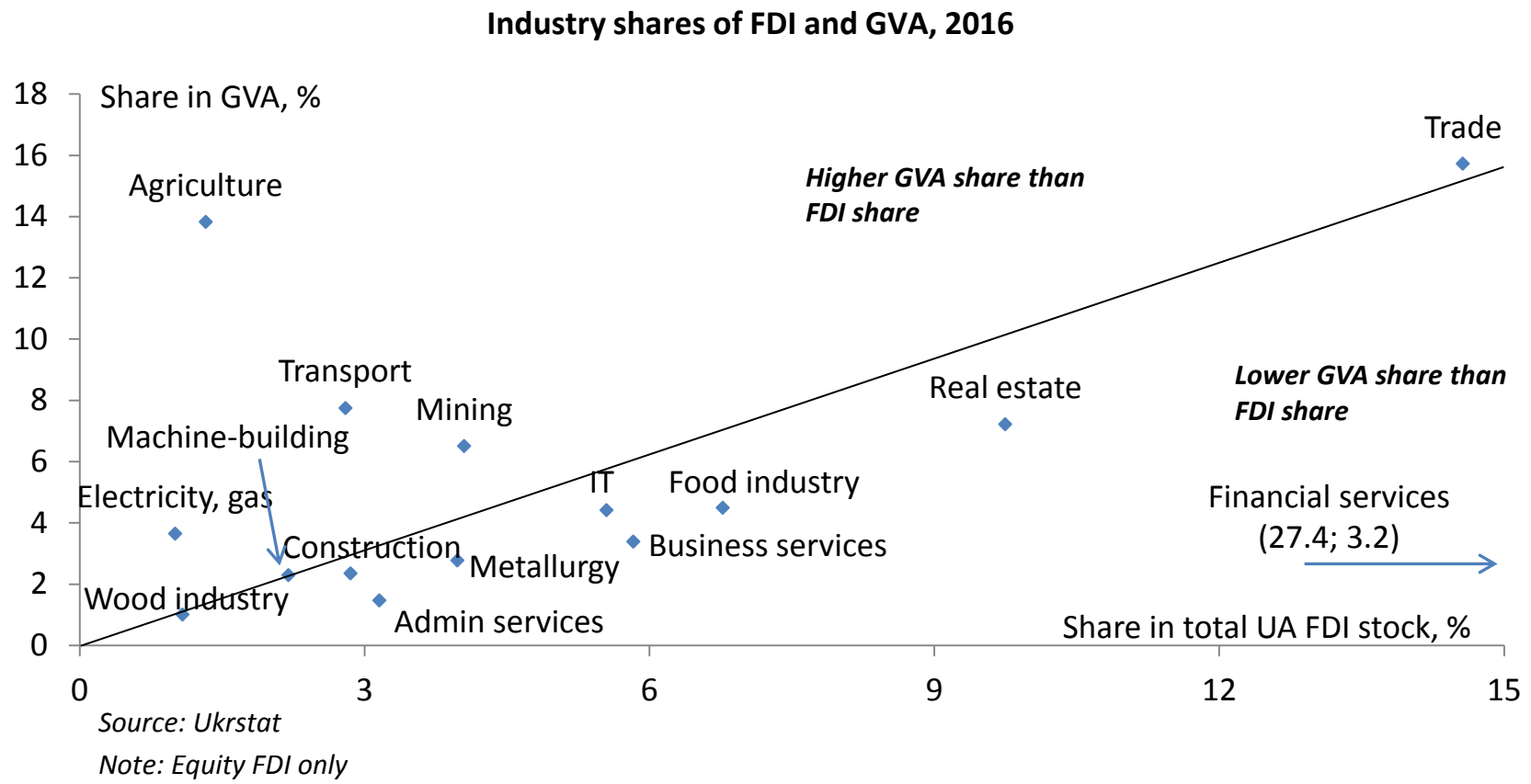
Source: IMF CDIS

- Data reflects immediate source countries, not final beneficiary
- Importance of financial hubs (NL, CY, SUI, BVI)
- Large EU countries (DE, UK, FR) only of secondary importance
- Cyprus used to be top source country, but stock declined substantially after 2016
- Partly due to higher exposure in financial sector
- In FDI from financial hubs, especially Cyprus, significant shares of roundtrip capital may be expected

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Inward FDI stock of Ukraine: FDI and GVA shares by industry



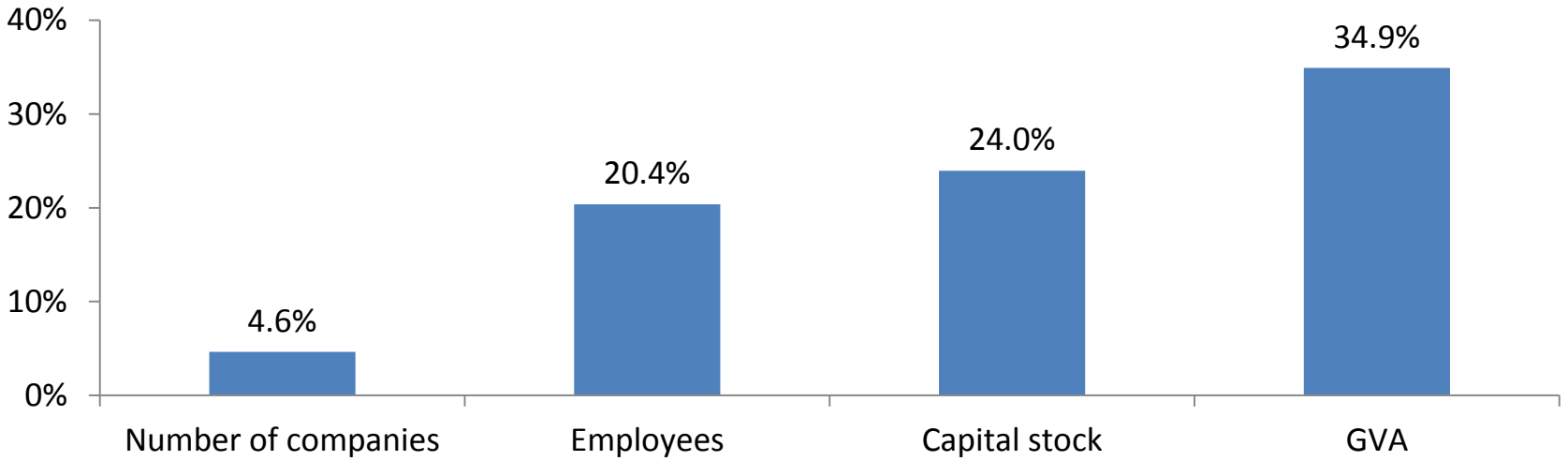
- Industries with highest FDI shares: Finance, trade, real estate, food industry
- Finance FDI share much higher than GVA share
- Lower FDI share than GVA share of agriculture, also transport, mining

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4.1 Economic impact of FDI companies: Aggregate economy

FDI companies, share of all non-financial corporations in Ukraine, 2016



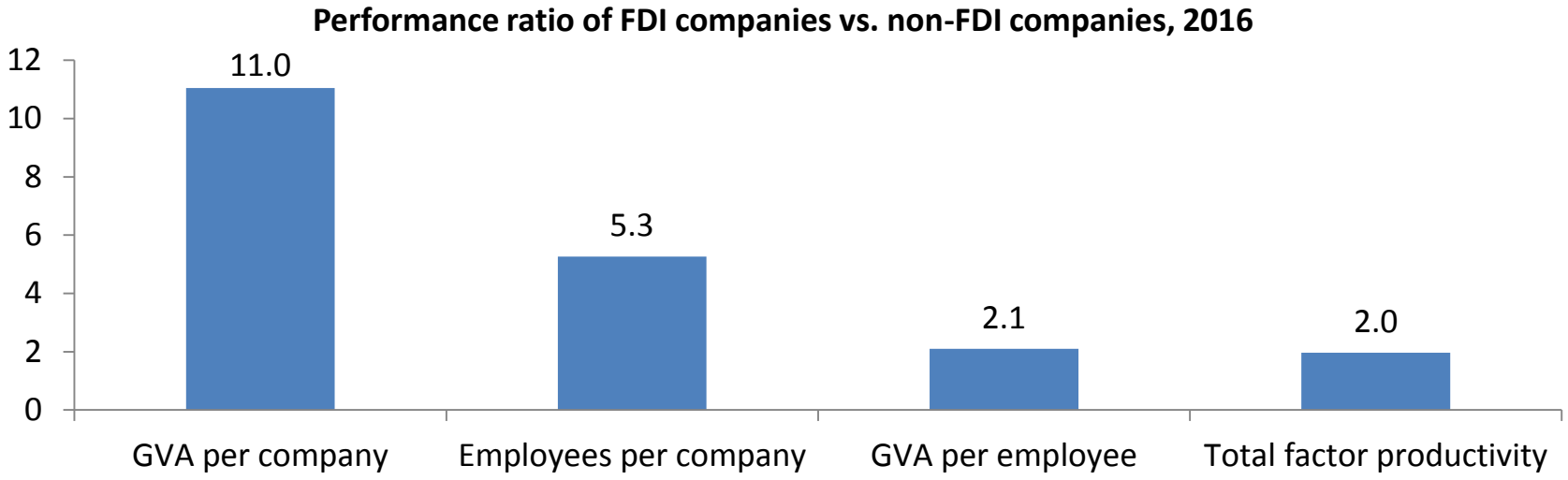
Source: Ukrstat, own calculations

- 14 thsd. FDI companies out of total of 301 thsd. companies
- These 4.6% of total companies
  - employ 20.4% of employees
  - produce 34.9% of GVA
- FDI companies appear to be larger and/or more productive than non-FDI companies

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FDI companies vs. non-FDI companies



Source: Ukrstat, own calculations
Note: "Performance ratio" denotes the value for FDI companies divided by the value for non-FDI companies

- Indeed, **FDI companies are larger and more productive than non-FDI companies**
  - Larger company sizes (11 x higher GVA, 5.3 x more employees per company)
  - Higher labour and total factor productivity implies they generate more value added from the same amount of labour and capital inputs
- Reasons:
  - Better access to capital, concentration of FDI investors on larger companies
  - But also more know-how, supplier and customer networks etc. of international investors (e.g. multinational companies)

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Impact of FDI companies: Profitability & social contributions

Profits, losses and social contributions of FDI companies, 2016

	All companies	FDI companies	Non-FDI companies
Share of profitable companies, %	73	53	74
Profit of profitable companies, UAH bn	432.9	134.1	298.8
Losses of loss-making companies, UAH bn	362.8	174.6	188.2
Aggregate financial result (pre-tax), UAH bn	70.1	-40.5	110.6
Social contributions, UAH bn	74.9	21.5	53.3

Source: Ukrstat, own calculations

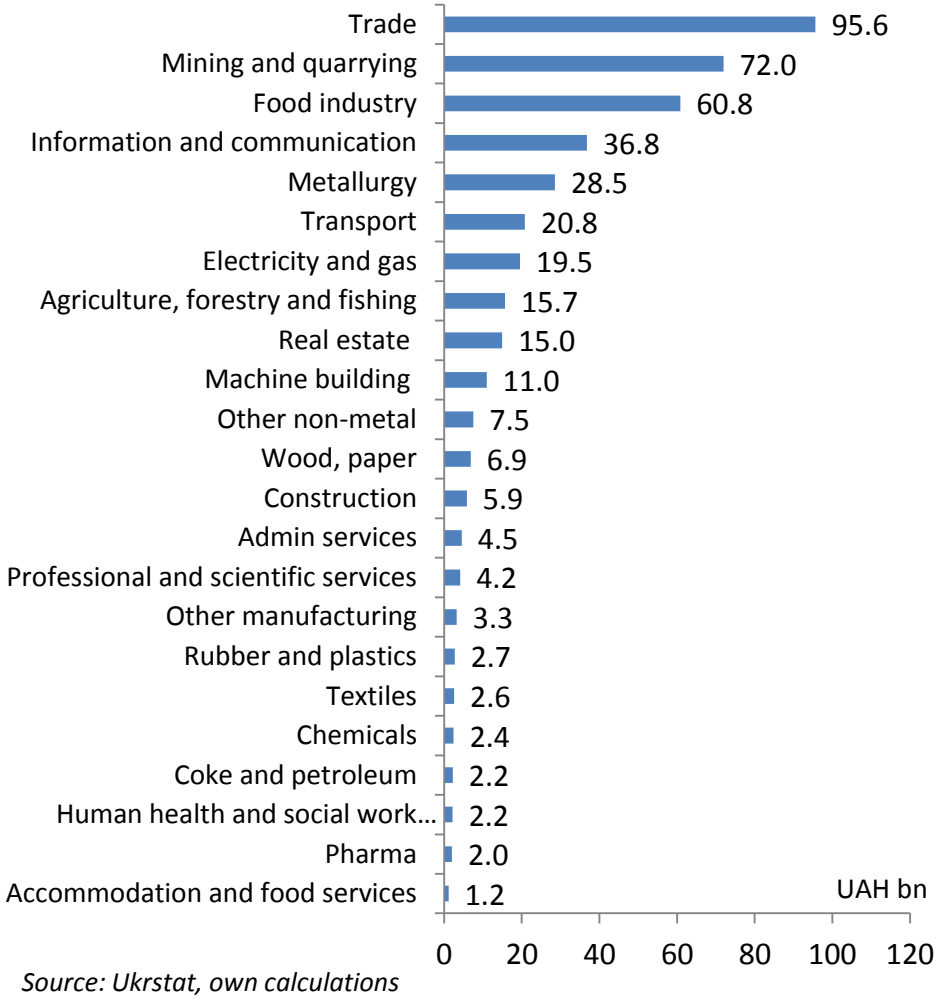
- In 2016, FDI companies were more likely to generate losses than non-FDI companies
- Aggregate pre-tax financial result of FDI companies: Losses of UAH 40.5 bn
- Aggregate UAH 110.6 bn profits of non-FDI companies
- Majority of losses of FDI companies originated in few sectors: Real estate (UAH 20.9 bn), Chemicals (UAH 16.1 bn), Construction (UAH 5.2 bn)
- Possible involvement of round-trip FDI, losses may be related to profit shifting

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4.2 Sectoral impact analysis: GVA of FDI companies

GVA produced by FDI companies by industry in 2016



Source: Ukrstat, own calculations

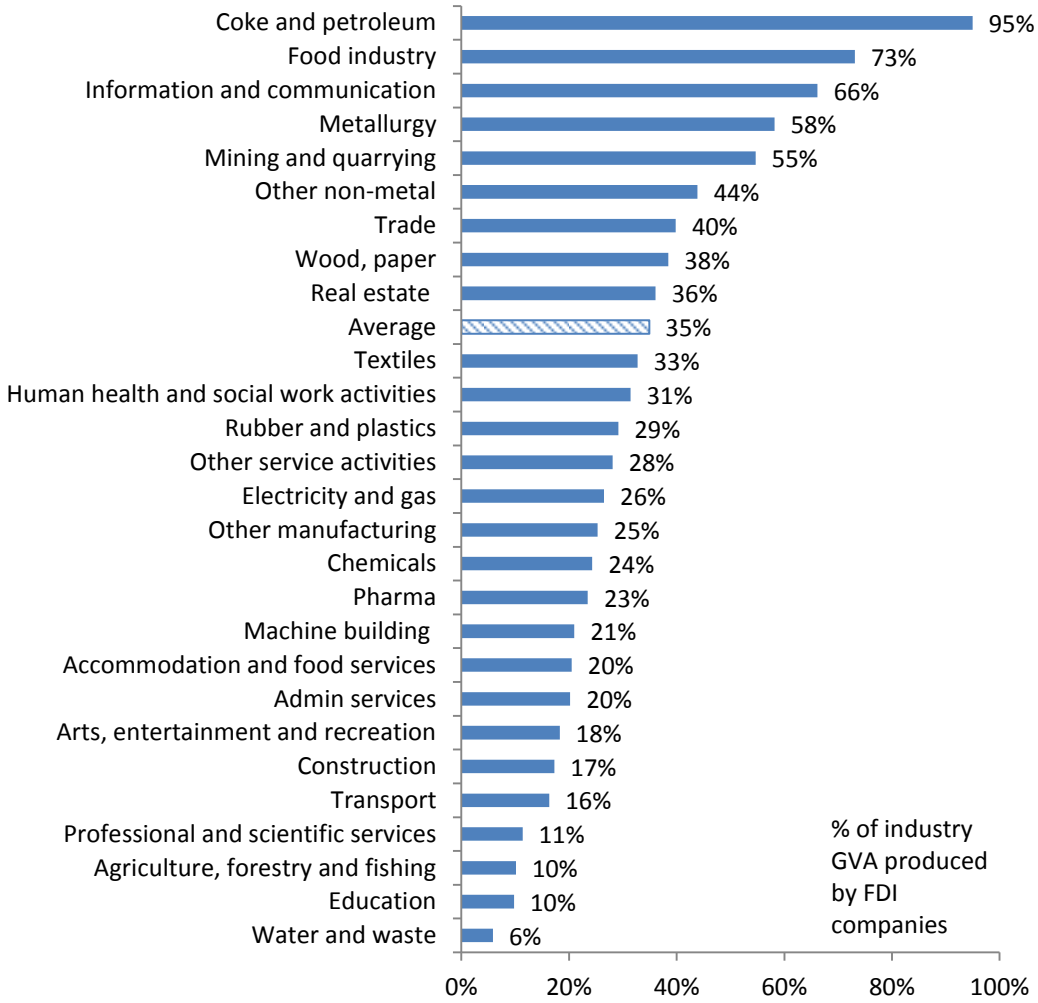
- Note: Financial sector excluded from analysis (only non-financial corporations)
- Large concentrations of FDI companies' GVA in
  - Trade (largest FDI stock)
  - Mining and metals
  - Food industry
  - Information and Communication (ICT)
- Some important industries (agriculture, machine building) appear underrepresented
- **Bottom line:**
  - GVA of FDI companies only partially reflects structure of Ukrainian economy

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Sectoral impact analysis: GVA shares of FDI companies

GVA of FDI companies, % of industry total, 2016



Source: Ukrstat, own calculations

- Coke & petroleum: Outlier due to high losses of non-FDI companies, 2016 probably highly atypical year

- Large concentrations in food industry, ICT, metals and mining
- Moderate shares in trade, real estate
- Very low share in agriculture may be related to usage of trade companies for control of agricultural companies

Bottom line

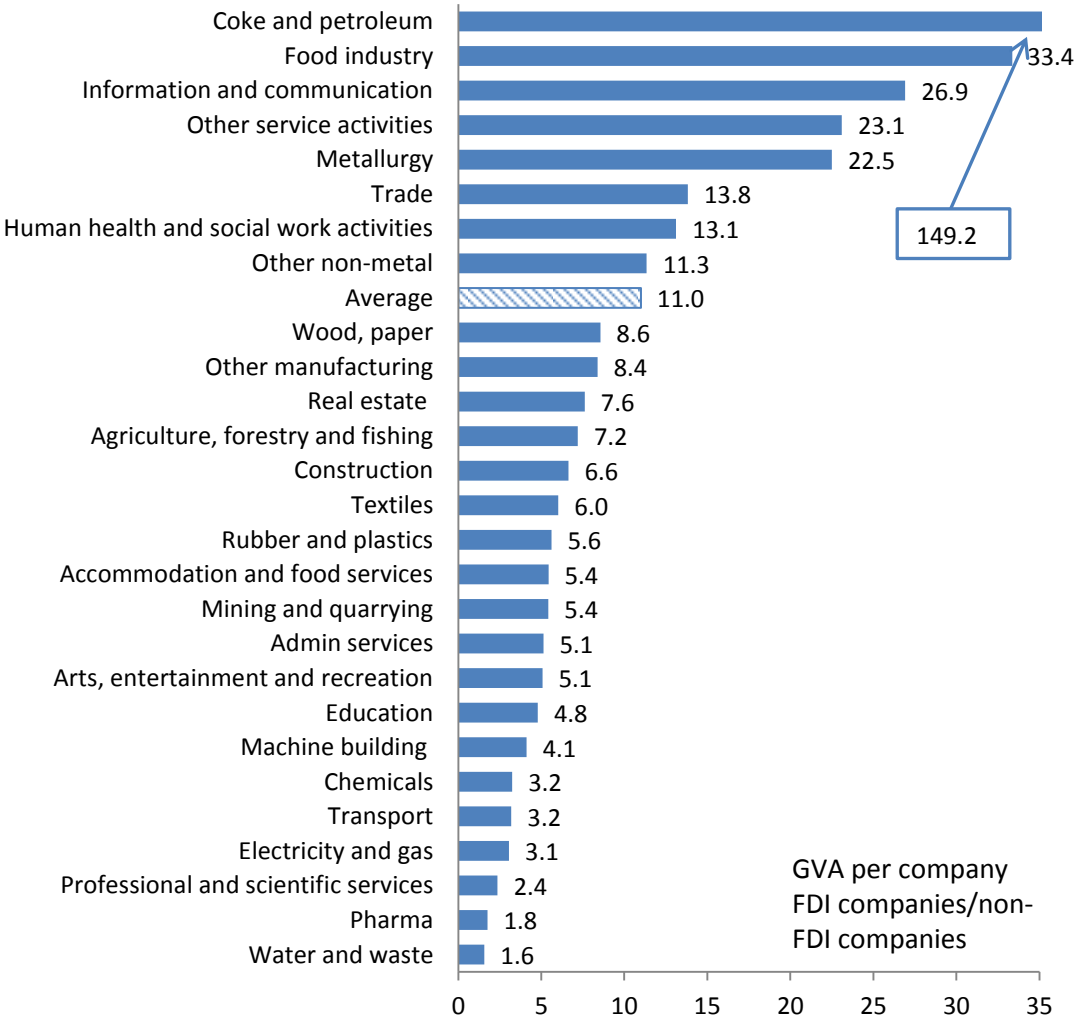
- Very uneven distribution of GVA share of FDI companies

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Sectoral impact analysis: Company size differential

Performance ratio GVA/company of FDI vs. non-FDI companies, 2016



Source: Ukrstat, own calculations

- FDI companies are larger with respect to GVA per company than non-FDI companies in all industries
- Especially larger in:
  - Food industry (FDI companies have 33.4 x more GVA per company than non-FDI companies)
  - ICT (26.9 x)
  - Metallurgy (22.5 x)

Bottom line:

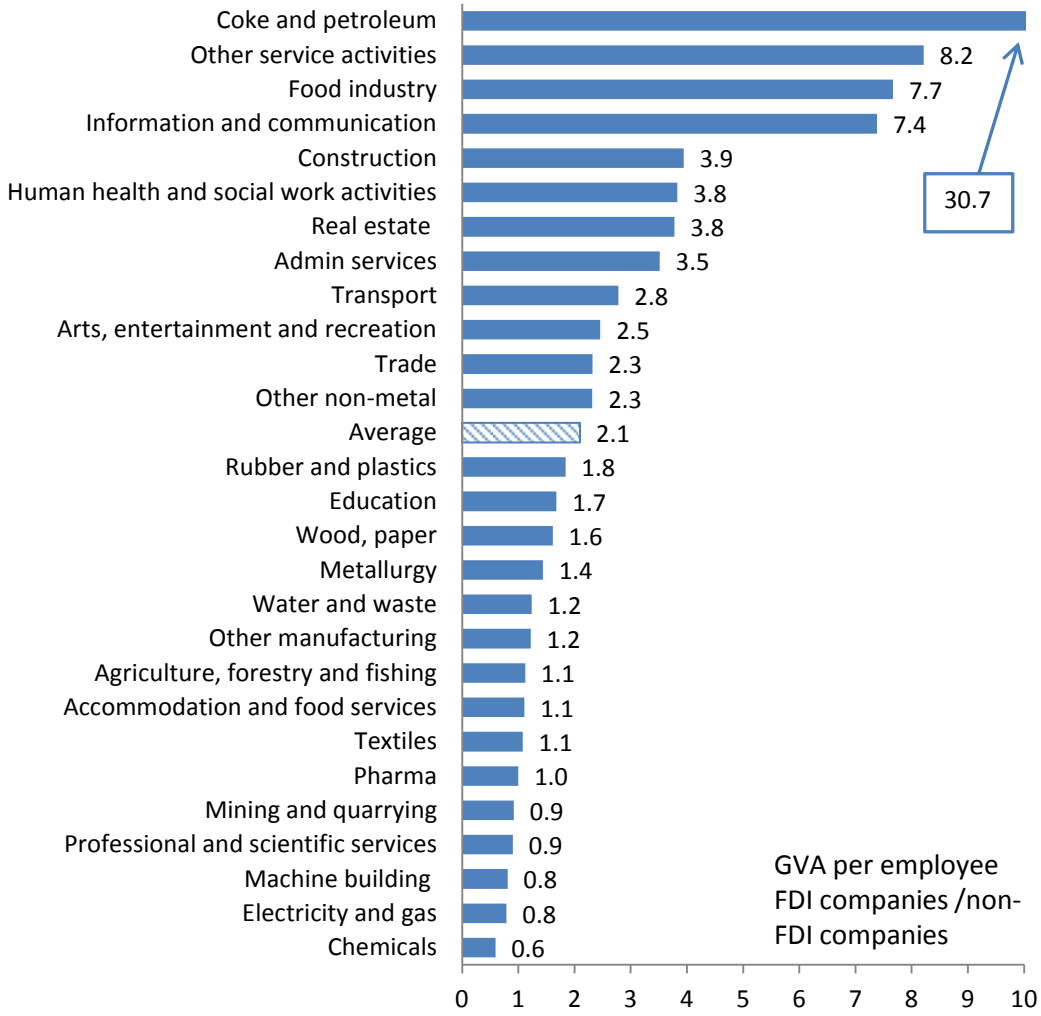
- FDI companies are larger than non-FDI companies across the board

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Sectoral impact analysis: Labour productivity differential

Performance ratio GVA/employee of FDI vs. non-FDI companies, 2016



Source: Ukrstat, own calculations

- Higher labour productivity of FDI companies compared to non-FDI companies in 21 of 27 industries
- Significantly higher labour productivity of FDI companies in
  - Food (7.7 times higher)
  - ICT (7.4 times higher)
- Modest labour productivity advantages in trade, metallurgy
- No productivity advantage in mining, machine building

Bottom line:

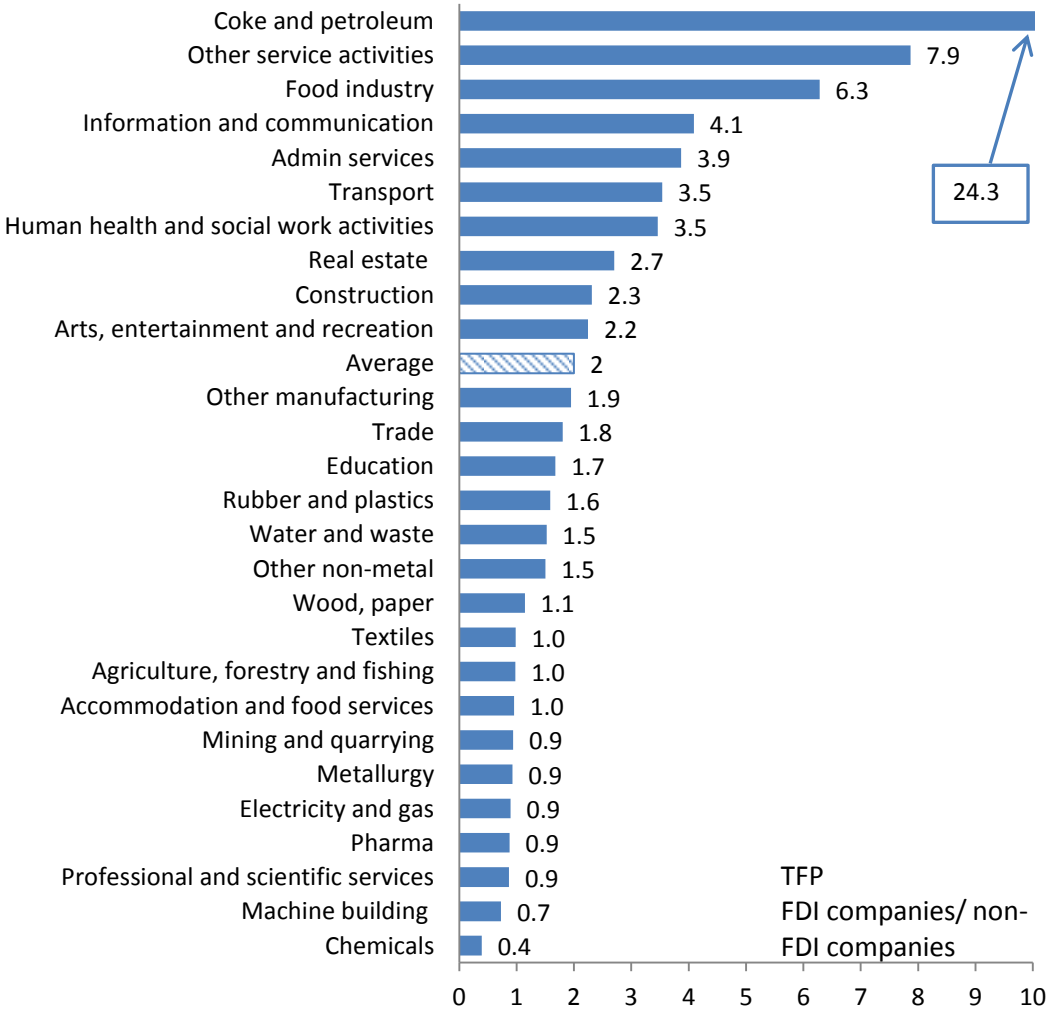
- Higher labour productivity of FDI companies in food, ICT
- No advantage in heavy industry

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Sectoral impact analysis: TFP differential

Performance ratio TFP of FDI vs. non-FDI companies, 2016



Source: Ukrstat, own calculations

- TFP differentials show, whether FDI companies are genuinely more productive
- Especially large differential for food industry, ICT
- Moderate positive differential for real estate, construction, trade
- No, or negative differential in heavy industry
  - Non-FDI companies may be very good (strengths of UA)
  - Distortion due to round-trip FDI

Bottom line:

- Productivity advantage of FDI companies in food, ICT
- No advantage in heavy industry

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6. Conclusions

Analysis of FDI stock

- Ukraine has attracted less FDI than comparable countries
- FDI stock decline in 2013-2016 due to depreciation and economic difficulties
- FDI in UA concentrated in finance, trade, real estate, food and ICT industries
- Much FDI comes from financial hubs, significant share of round-trip FDI likely

Economic impact of FDI

- FDI companies contribute strongly to Ukraine‘s economy
- Among non-financial corporations, FDI companies make up 4.6%, but employ 20.4% of employees and produce 34.9% of total GVA
  - FDI companies are larger: On average, an FDI company produces 11 times more GVA than a non-FDI company, employs 5.3 times more employees
  - FDI companies are more productive: On average, 2.1 times higher labour productivity, twice higher total factor productivity, pay higher wages
- Productivity advantage of FDI companies very high in food, ICT industries
- No productivity advantage of FDI companies in heavy industry and agriculture

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Annex1:
Comparison of scope and methodologies behind data sources

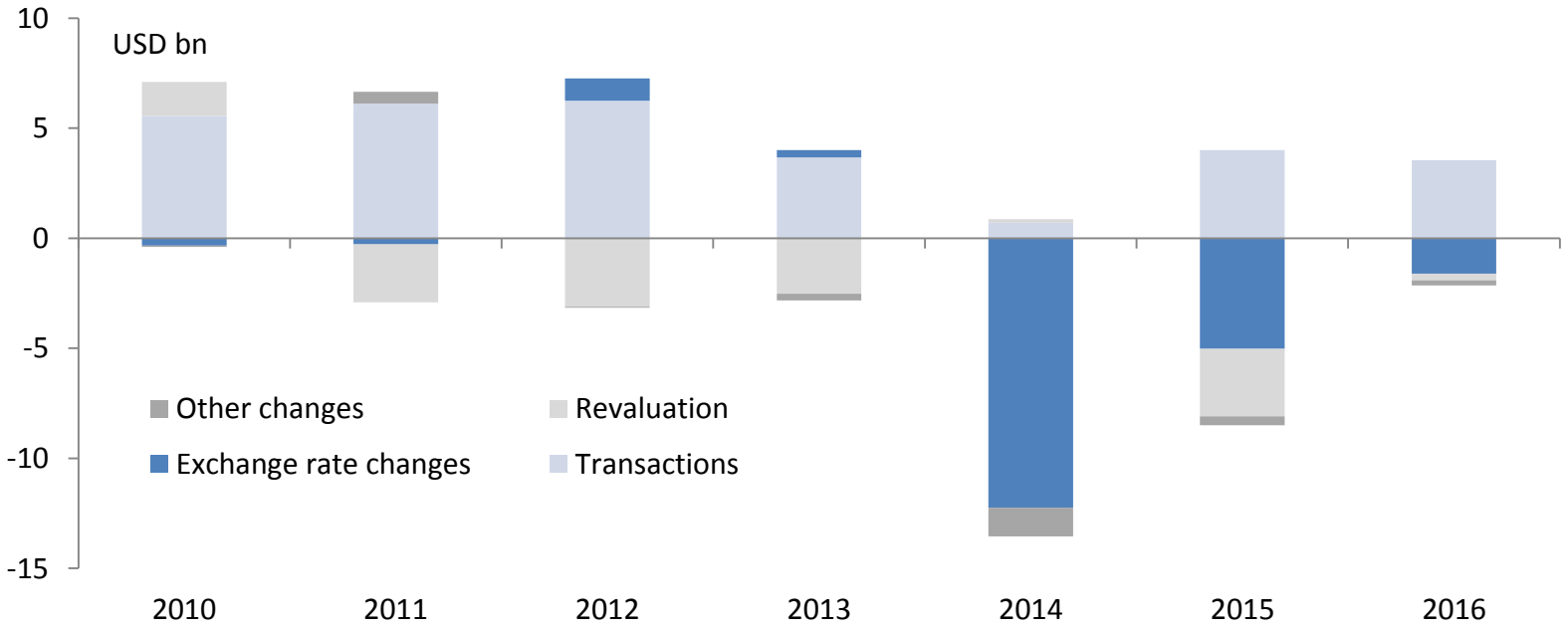
	Ukrstat	NBU	IMF CDIS
Difference from Ukrstat (primary source)	-	Added FDI in real estate	• Multilateral survey • Different market value concept
Breakdown by country	Yes, but for equity FDI only	No	Yes
Breakdown by industry	Yes, but for equity FDI only	No	No
Valuation of listed companies	Market capitalisation	Market capitalisation	Market capitalisation
Valuation of unlisted companies	Statutory capital	Statutory capital	Statutory capital plus retained earnings

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Annex 2:
Reasons for drastic changes in FDI stock

Adjustment of FDI stock data 2010-2016

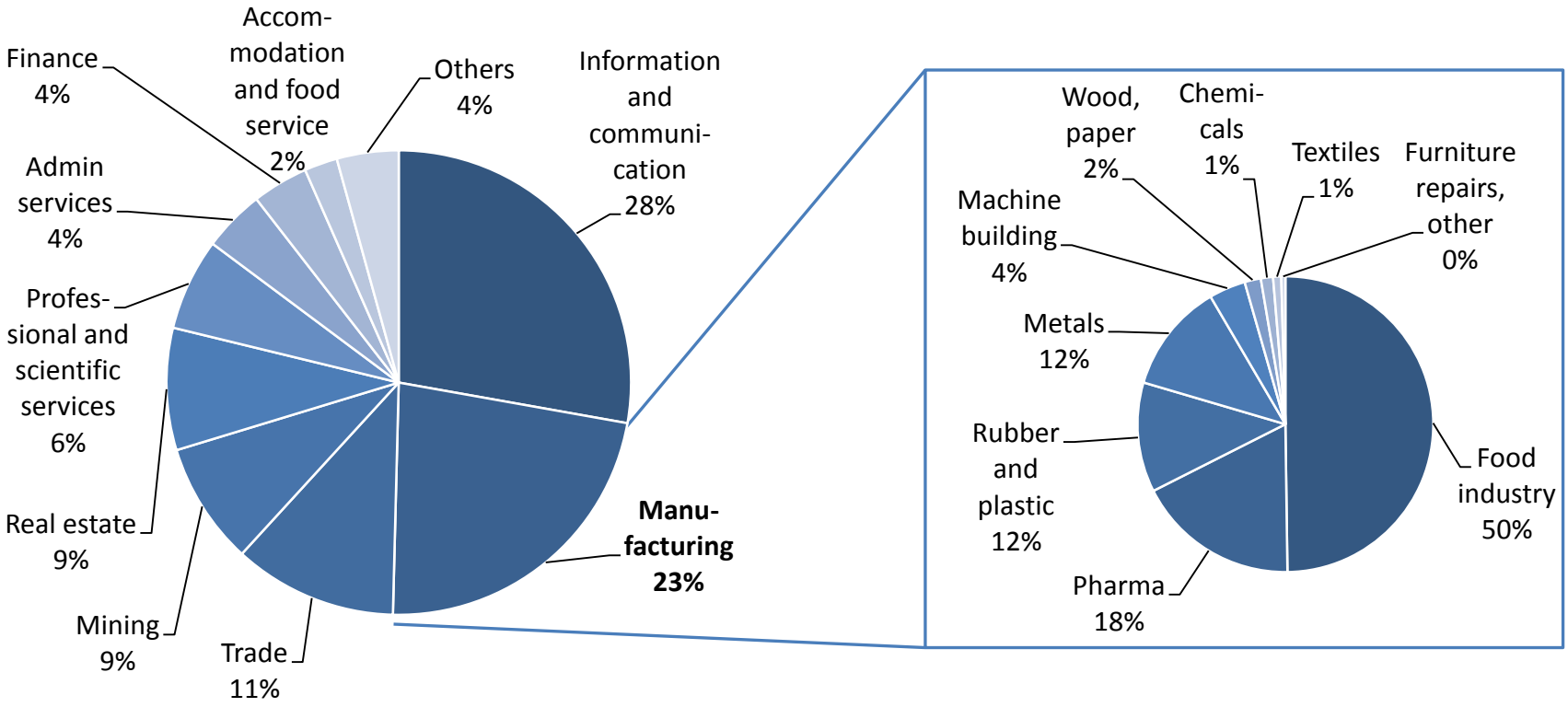


Source: NBU

- Exchange rate changes explain most of the drastic fall
- Revaluations (writedowns due to crisis/conflict) of - USD 3.1 bn in 2015
- Bank losses smaller by using balance sheet method
- FDI inflows (transactions) remained positive throughout 2013-2016
  - Likely: Partially a result of capital controls

Annex 3:
FDI from top 3 source countries by target sector

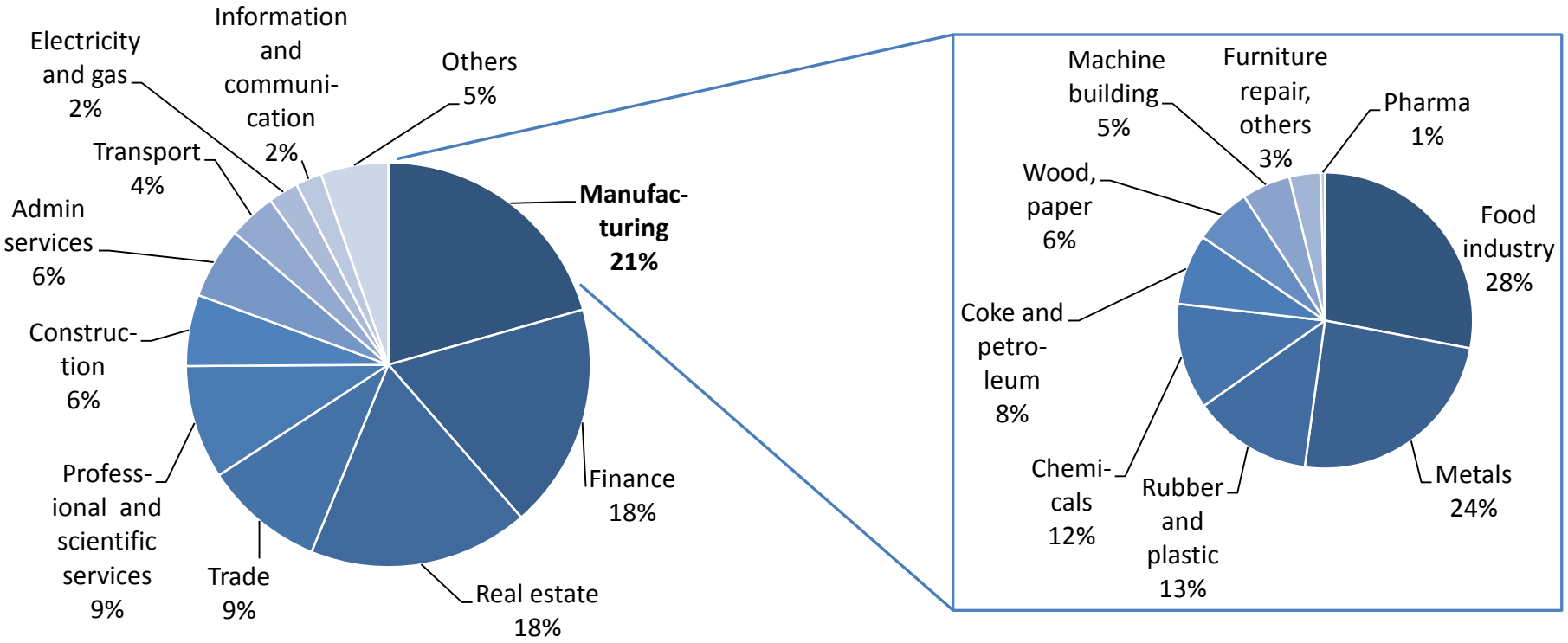
#1 Source country: Netherlands



Source: Ukrstat, own calculations

Annex 3:
FDI from top 3 source countries by target sector

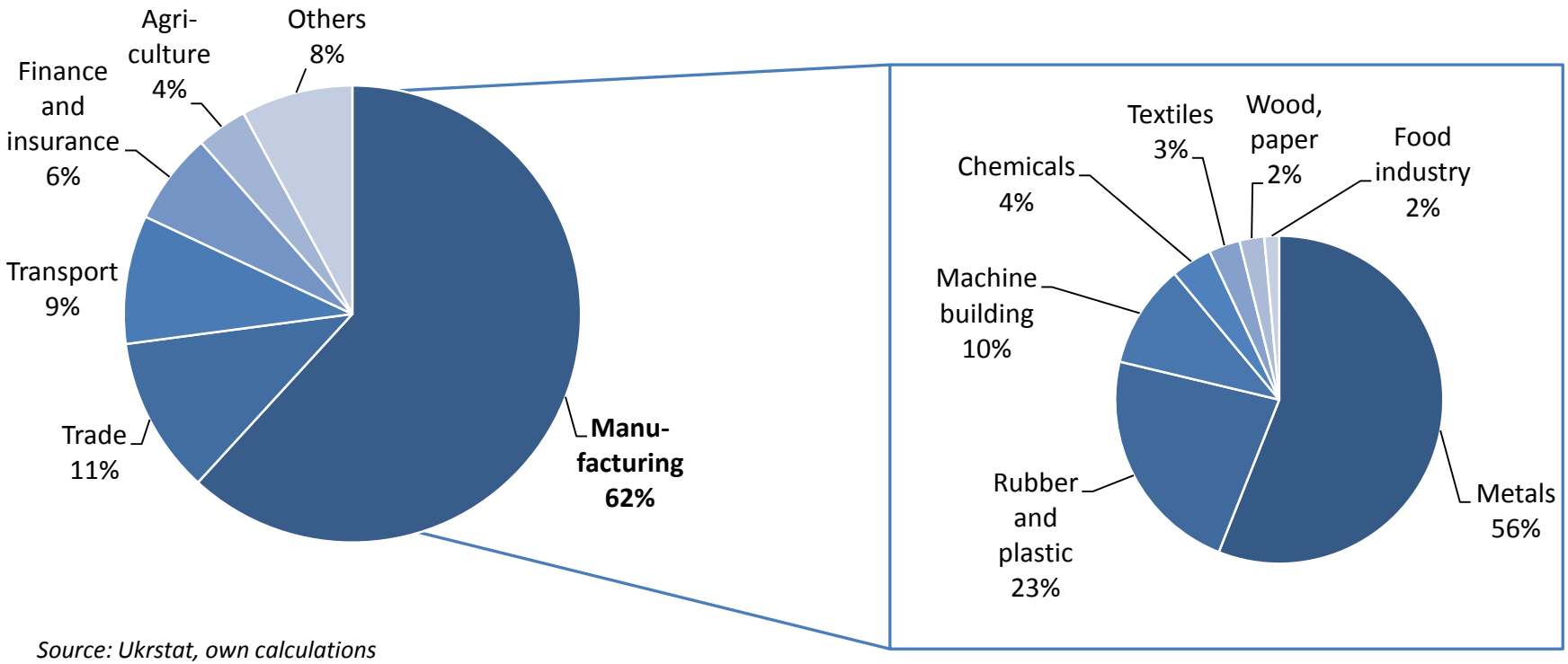
#2 Source country: Cyprus



Source: Ukrstat, own calculations

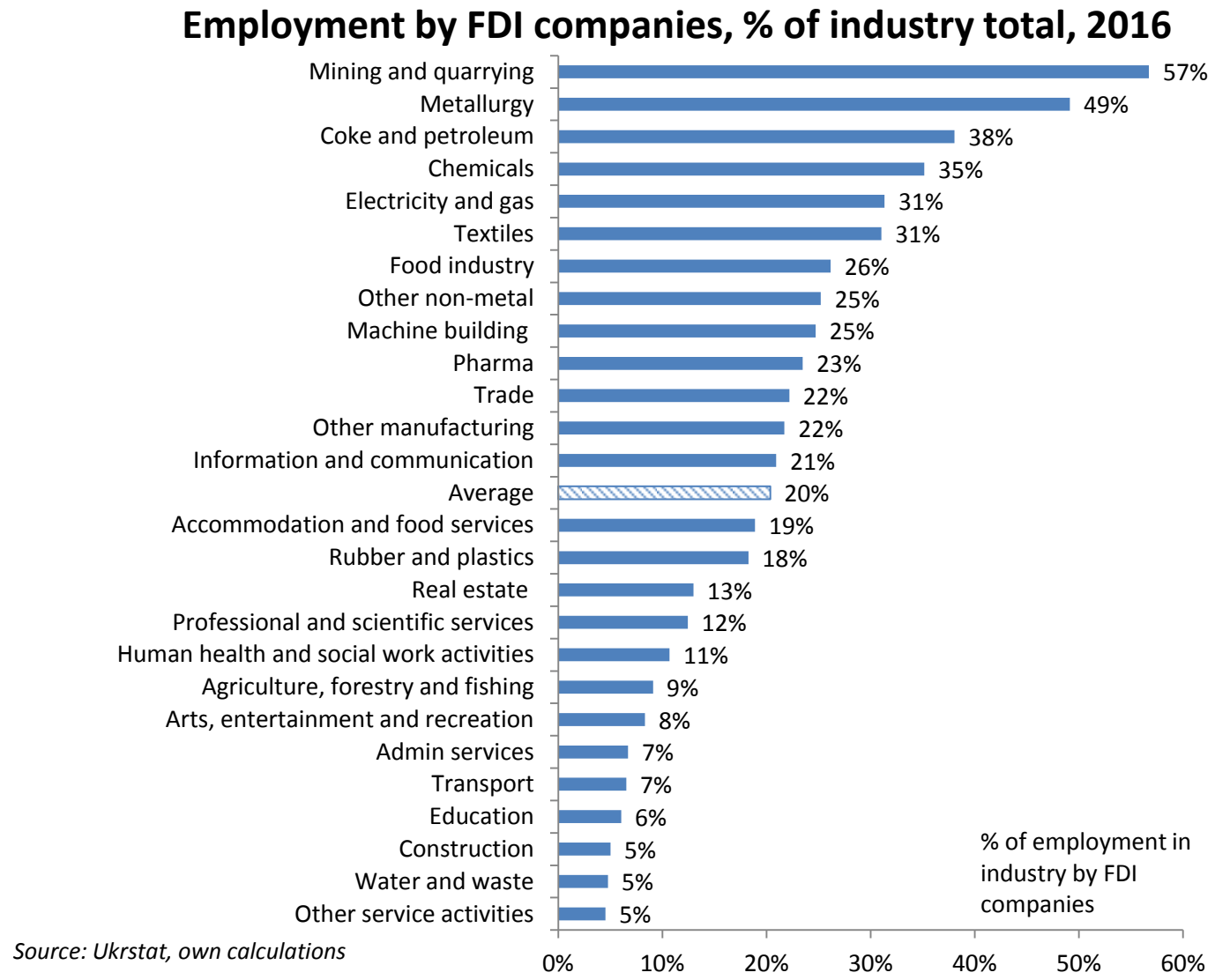
Annex 3:
FDI from top 3 source countries by target sector

#3 Source country: Germany



Source: Ukrstat, own calculations

Annex 4:
Employment shares of FDI companies



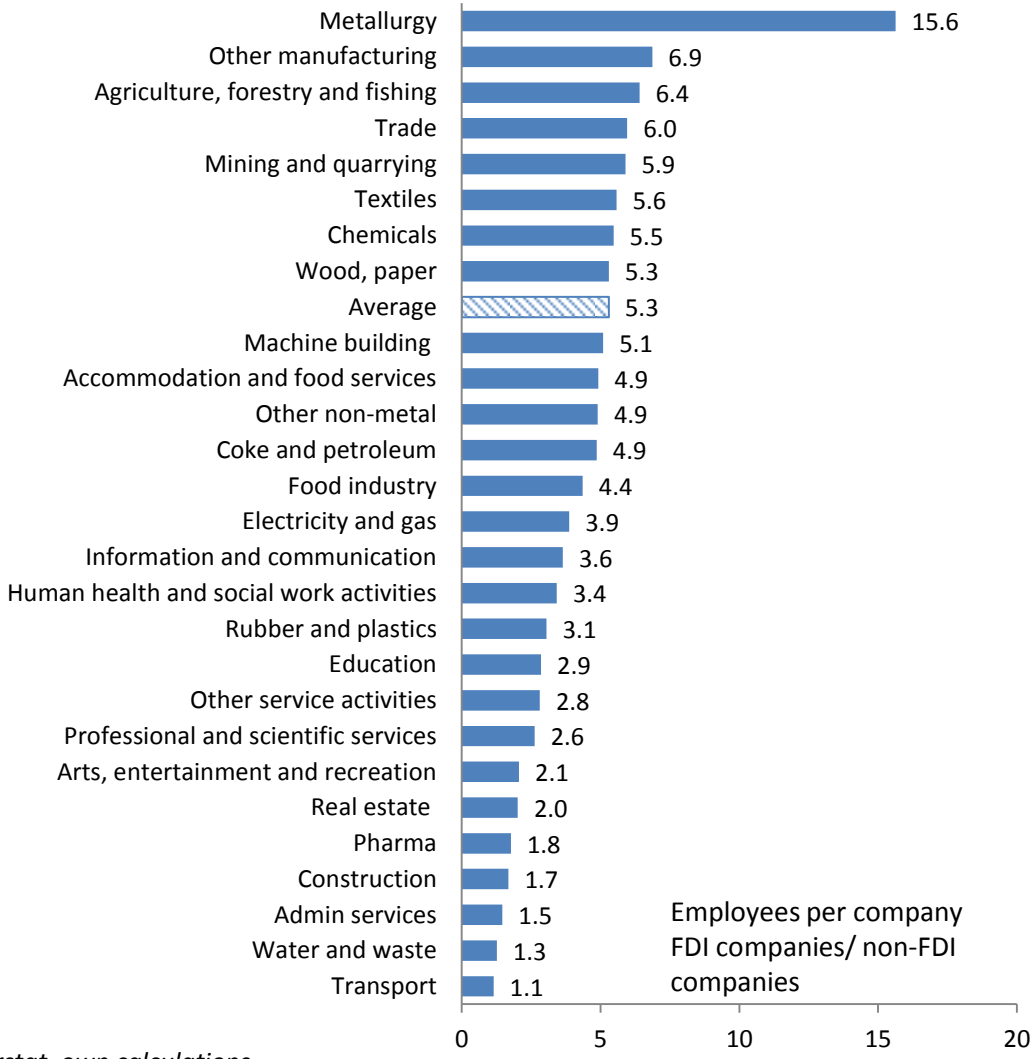
Source: Ukrstat, own calculations

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Annex 5:
Size of FDI companies: Employment per company

Performance ratio employees/company of FDI vs. non-FDI companies, 2016



Source: Ukrstat, own calculations

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