

Geneva, April 25, 2023

MEETING OF THE GROUP OF EXPERTS ON NATIONAL ACCOUNTS

# TOWARDS THE COMPILATION OF eSUTs FOR ITALIAN ECONOMY

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# Outline

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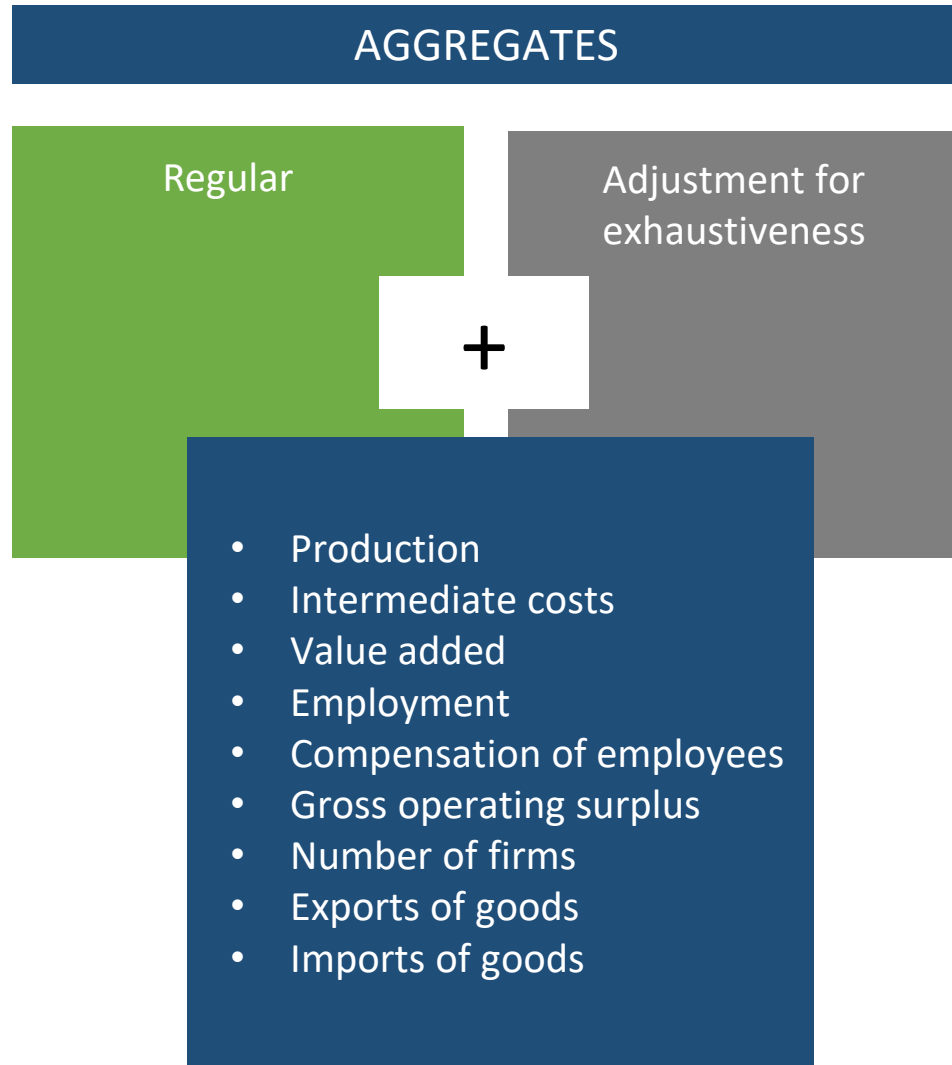
- Introduction
- Structure of eSUTs for Italy
- Coverage
- Informative sources
- Allocation to typologies
- Preliminary analyses
- Conclusion and way forward

# Introduction

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- In the last decades, the progressive emergence of global set up of production processes strongly challenged the conventional framework of accounting for international trade flows and production processes
- Traditional gross measures of imports and exports are now less informative, while the increasing heterogeneity in structure, strategies and economic features of business units is hardly captured by sector-based Supply and Use (SUTs) and/or Input-Output (IOTs) tables
- There is a wide agreement about the possibility that an extension of the traditional sector-based SUTs/IOTs scheme may represent a relevant improvement in accounting for firms' heterogeneity and, at the same time, a bridge between the national and global perspectives in the analysis of production
- This paper shows the results of the pilot activity that Istat is carrying out to obtain eSUTs for Italy
- This work grounds on the wide availability of microdata related to business statistics, international trade and governance set-ups, which allows to obtain a granular representation of production processes.
- Three main patterns of firms heterogeneity are accounted for: governance status, trading status, size class

# Structure of Italian eSUTs



# Structure of Italian eSUTs

- Interacting the dimensions of heterogeneity (3 governance statuses, 4 trading statuses, 4 size classes), 48 typologies of firms are obtained, where this breakdown is applied to the different aggregates for 98 economic activities

Market status	Not internationalised												Only importer				Only exporte				Two-way trader				Total	
	Domestic				Domestic MNE				Foreign MNE				Domestic		...		Domestic		...		Domestic		...			
	1-10	10-50	50-250	250+	1-10	10-50	50-250	250+	1-10	10-50	50-250	250+	1-10	10-50	50-250	250+	...	1-10	10-50	50-250	250+	...	1-10	10-50		50-250
Economic activity																...					...					...
1																...					...					...
2																...					...					...
3																...					...					...
...																...					...					...
55																...					...					...
56																...					...					...
57																...					...					...
...																...					...					...
96																...					...					...
97																...					...					...
98																...					...					...
<b>Total</b>																...					...					...

# Coverage

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## ○ Covering:

- Regular economy
  - Survey and census
  - Administrative data
  - Combined data
  - Imports and exports of goods
- Adjustment for NA exhaustiveness
  - Value added from un-registered workers (N1)
  - Business units outside the scope of SBS (N4)
  - Micro-firms, outworkers (N5)
  - Under-reporting (N6)

## ○ Not covering:

- Regular economy
  - Conceptual adjustments (ESA2010)
  - Imports and exports of services
- Adjustment for NA exhaustiveness
  - Illegal economy (N2)
  - Statistical deficiencies on data (N7)

# Informative sources

- eSUTs are built following a bottom-up approach that uses the information at the highest level of disaggregation in order to replicate the final NA data

<b>Micro-data</b>	
Frame SBS Register	Output, costs, value added, compensation of employees, operative margin, employment for resident business units within the scope of SBS
ASIA Group Register	Structure and governance of domestic and multinational groups
TEC Archive	Imports and exports by resident business units and country of origin/destination
Frame NOE Register	Adjustment for under-reporting for treatable resident business units within the scope of SBS (N6)
ASIALeU Register	Adjustment for resident units outside the scope of SBS (N4)
Social security database	Outworkers (N5)
<b>Meso-data</b>	
Employment database	Un-registered employees and self-employed, workers, positions, hours worked and FTEs
NOE database	Value added from un-registered workers, other underground components (N1)

# Allocation to typologies

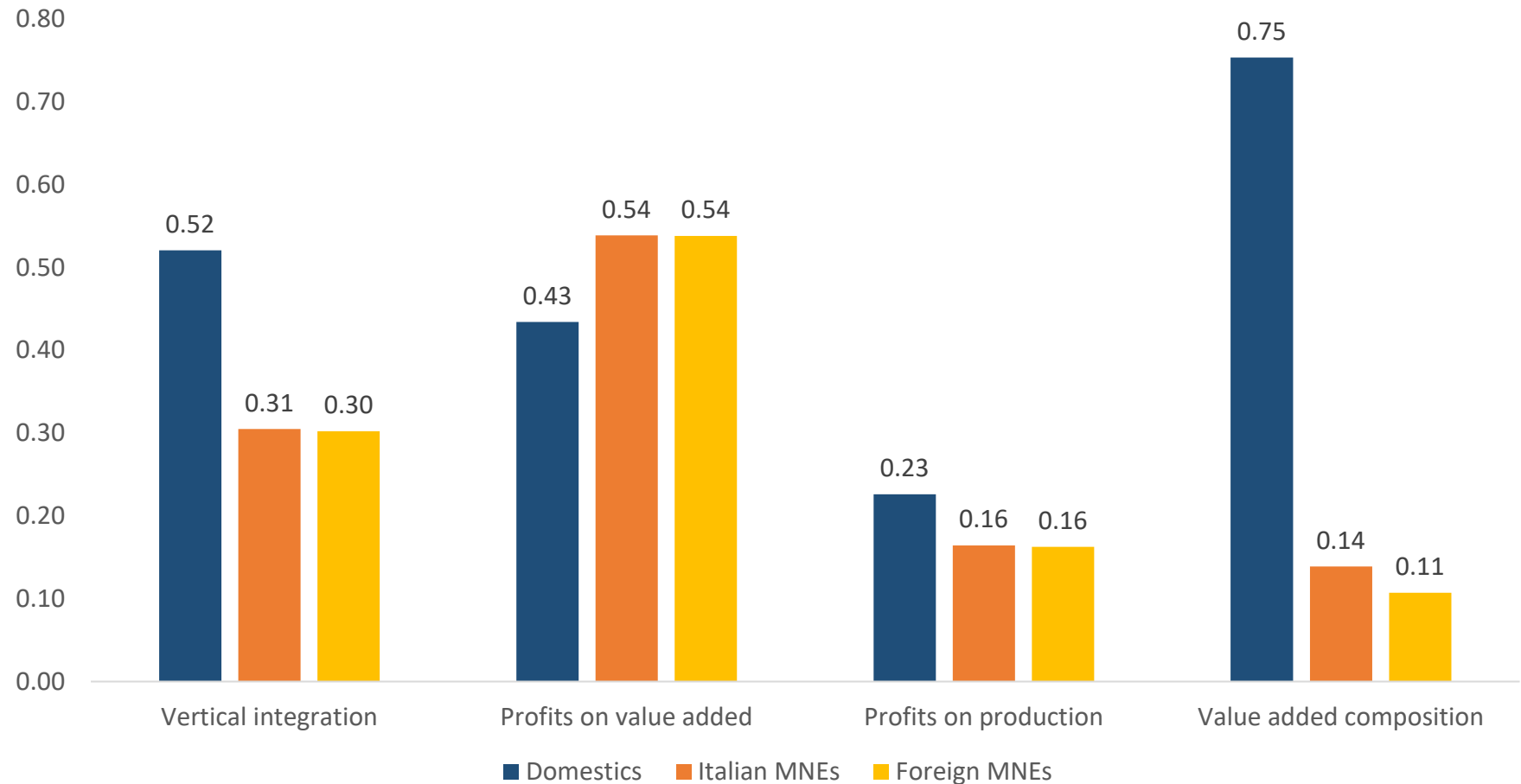
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- Regular economy (including imports and exports of goods) is allocated to each strata at micro level
- Value added from un-registered workers (N1) is allocated to domestic units operating in domestic market by size class
- Units outside the scope of SBS (N4) is allocated to each strata at micro level
- Micro-firms, outworkers (N5) are allocated to domestic units operating in domestic market in the 1-5 workers size class
- Under-reporting (N6) is allocated to each strata at micro level



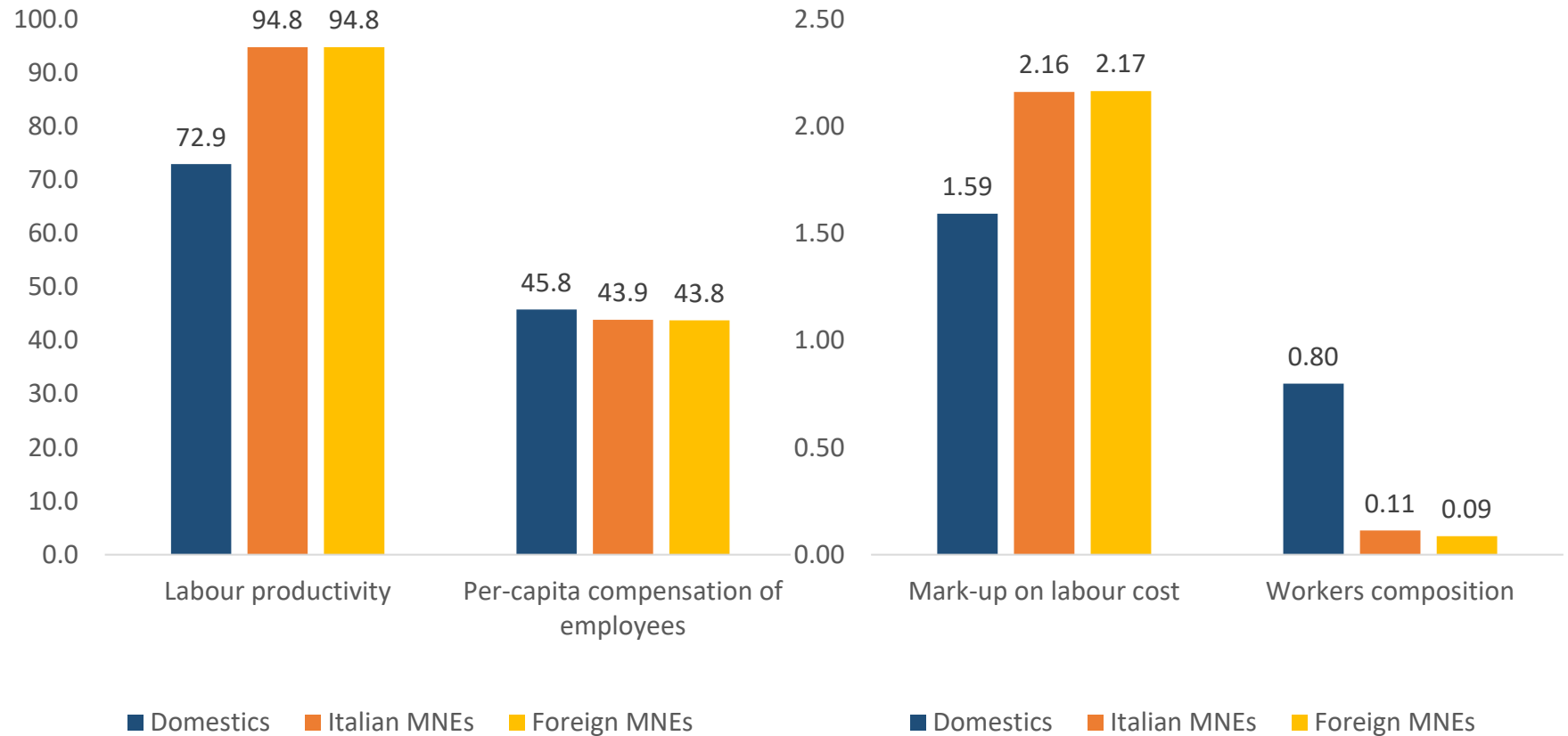
# Preliminary analysis | MNEs in Italian economy

- MNEs represents 25% of value added (14% with Italian GDC, 11% with foreign GDC)
- Domestics are more vertically integrated (value added on production ratio)
- MNEs shows lower profits (GOS) on production ratio (0.16 vs. 0.23) with respect to domestics



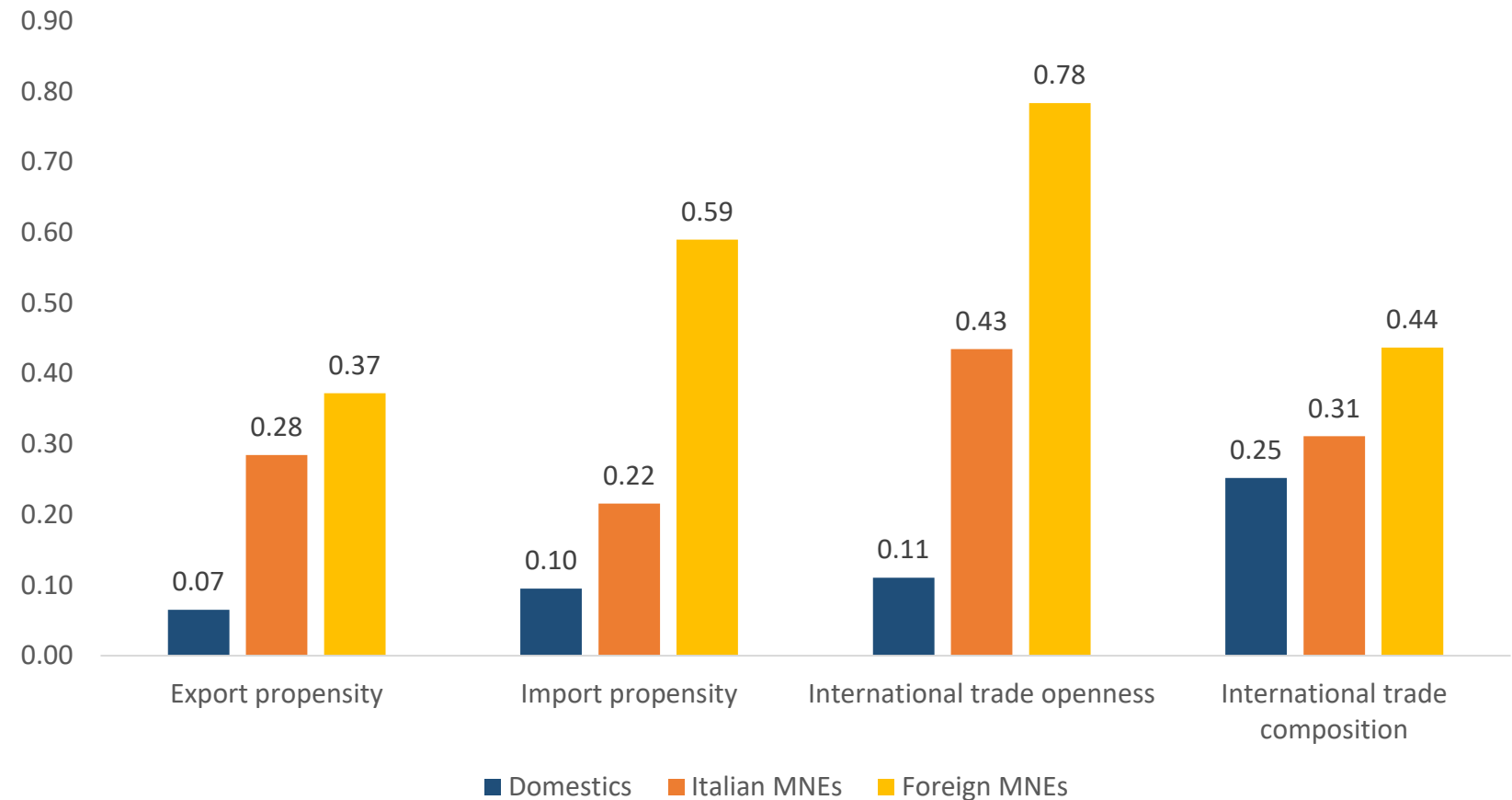
# Preliminary analysis | MNEs characteristics

- MNEs employ 20% of total workers
- There exists a relevant productivity gap between MNEs (over 94K euros vs. less than 73K per worker) and domestics
- Per-capita compensation is higher for domestics
- MNEs show a higher mark-up on labour costs



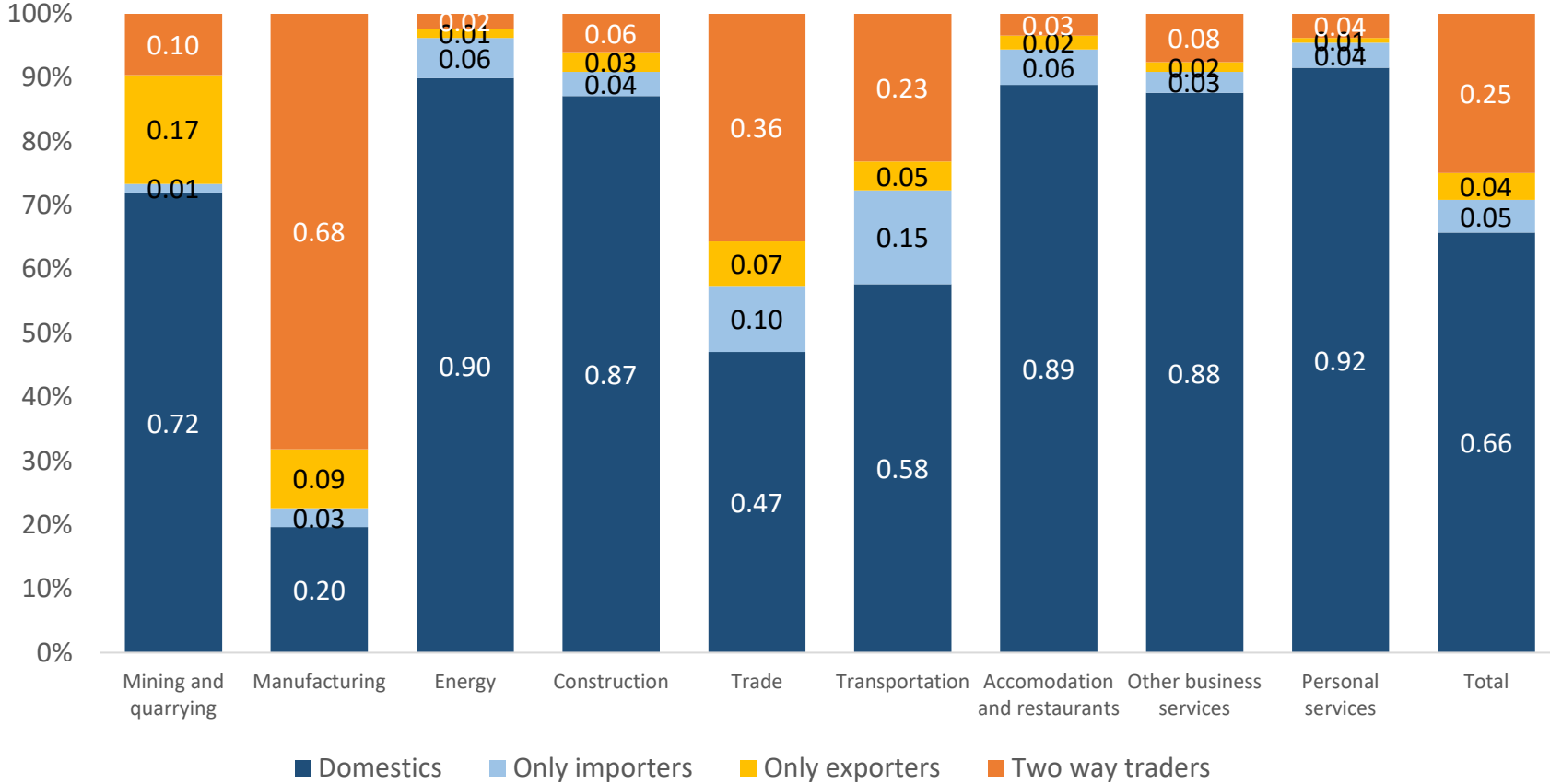
# Preliminary analysis | MNEs and international trade

- MNEs account for 75% of international trade (sum of imports and exports), 44% for foreign MNEs and 31% for Italian MNEs
- Foreign MNEs show a higher degree of openness with respect to Italian MNEs (78% vs. 43%)
- Foreign MNEs have higher import and export propensity with respect to Italian MNEs



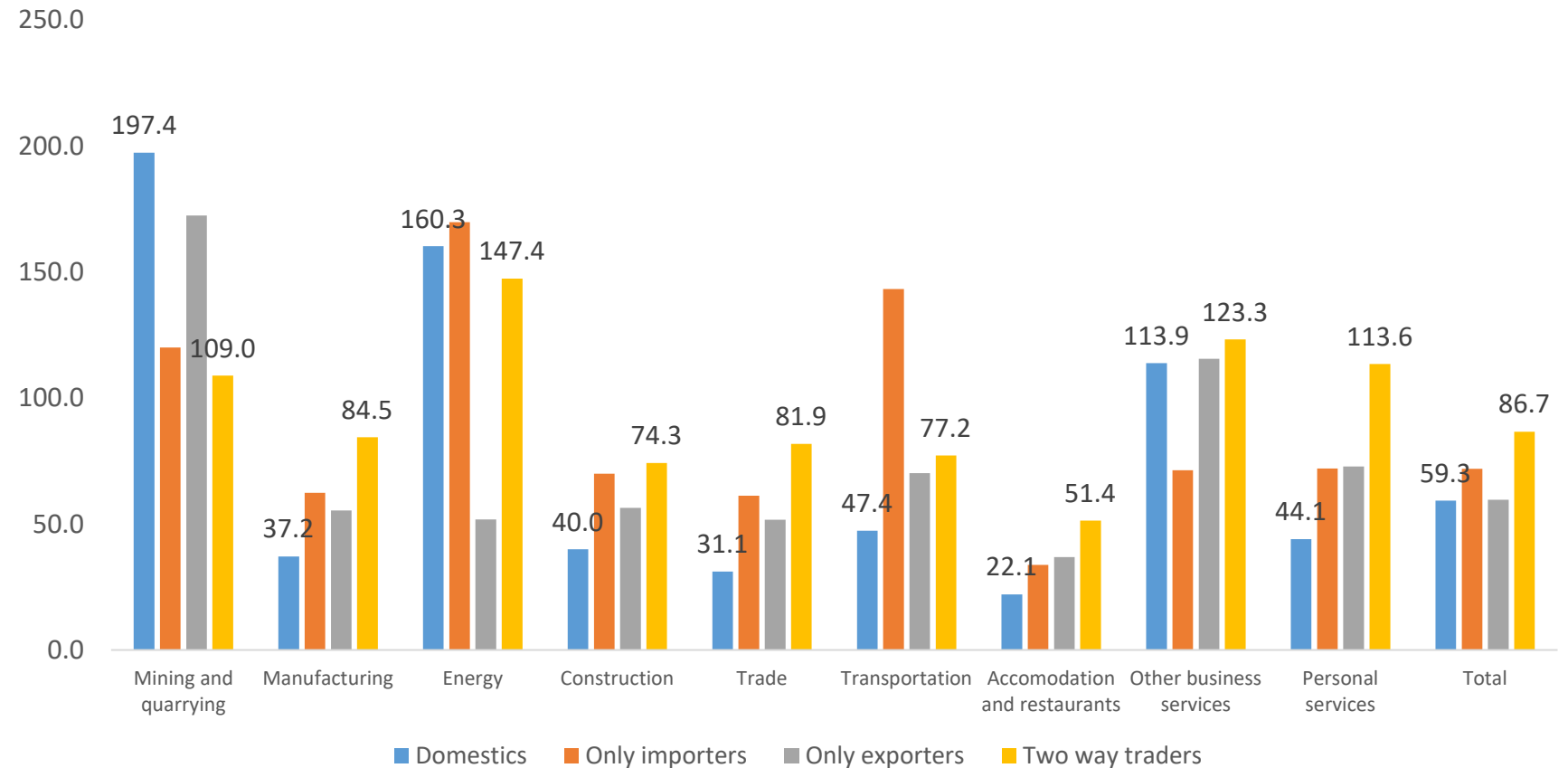
# Preliminary analysis | Value added by market orientation

- 66% of overall value added is generated by firms that neither import nor export
- Two-way traders account for 25% of value added
- Two-way traders are more relevant in Manufacturing, Trade and Transportation



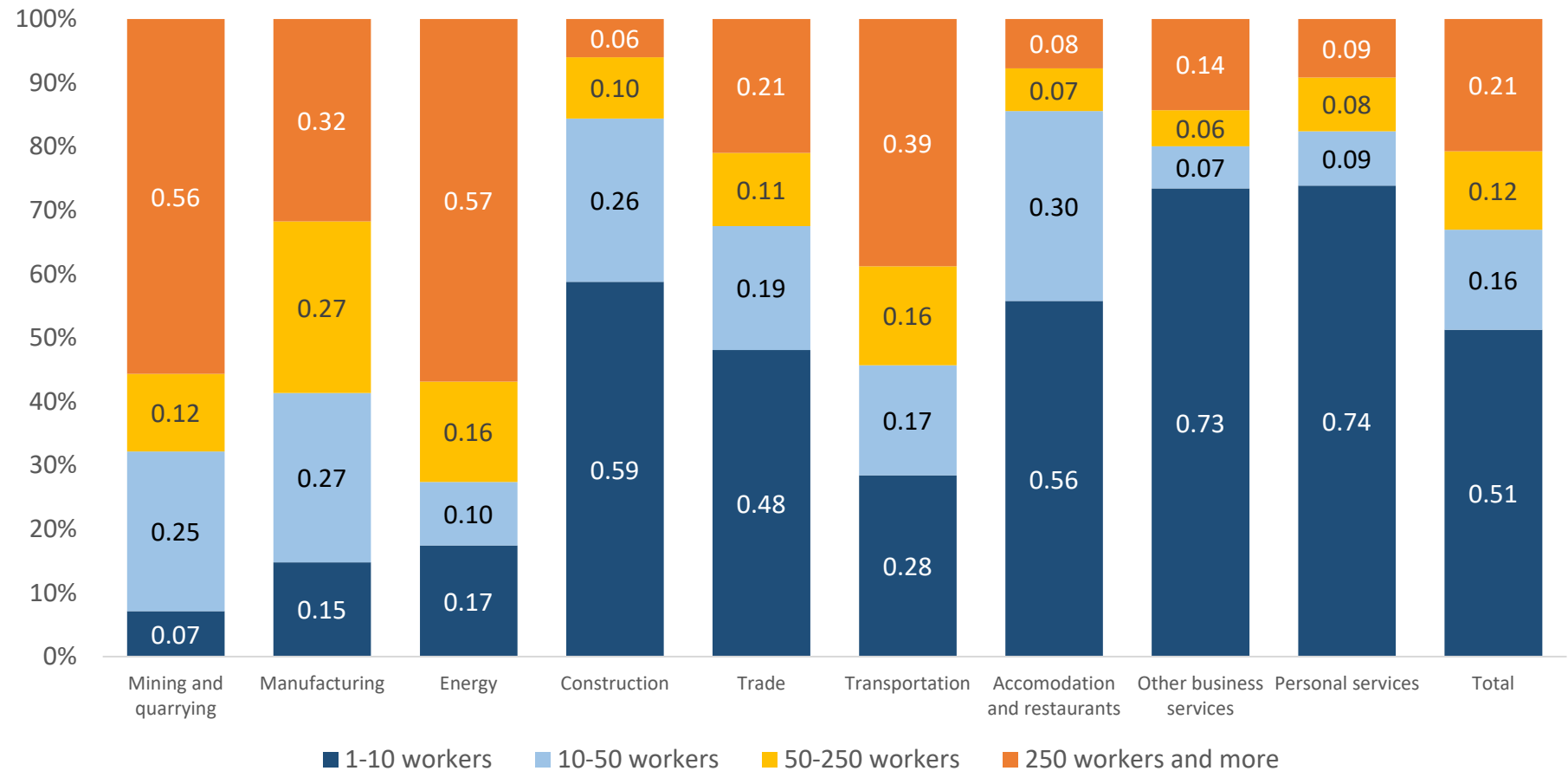
# Preliminary analysis | Productivity by market orientation

- Two-way traders show the highest overall productivity (86,7K euro per worker)
- This holds for all sectors but Mining and quarrying, Energy and Transportation
- Only exporters are less productive than only exporters



# Preliminary analysis | Value added by size class

- 51% of value added is generated by micro enterprises
- 21% of value added is generated by large firms
- Industry and Transportation show the highest incidence of value added from larger firms



# Conclusion and way forward

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- The pilot allowed to replicate a large part of the main NA aggregates by economic activity according to the proposed typologies of business units
- As it is, the eSUT pilot allows for analyzing interesting issues related to the patterns of the Italian business system, ranging from internationalization to the role of SMEs and MNEs
- Future developments aimed at completing the scheme should include:
  - Representation of international trade in services (including merchanting and processing) from microdata
  - Inclusion of conceptual adjustments and balancing of SUTs
  - Disaggregation by product and representation of intermediate consumption and final demand (consumption and investments)
  - Definition of eIOTs following the eSUTs disaggregation

# Thank you

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