Hidden Protectionism and Global Value Chains Integration: Evidence from Egypt

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Motivation

- Egypt's integration in Global Value Chains (GVCs) has increased over time but remains low compared to other countries.

- While the business climate in Egypt explains the weak performance of GVCs, trade policy and political connectedness still matter.

- Steady tariff dismantlement was accompanied by an increase in NTMs over time.

- Politically connected firms are likely to face less obstacles and integrate more easily in GVCs.

- Corruption and quality of institutions change the debate on GVC participation from simple questions of overall competitiveness to the long-standing questions of institutional quality and transparency.

- In the actual context, several investors are relocating their investments from Asian to geographical closer countries. Egypt might be one of the potentially attractive destinations.

Hidden Protectionism

- Tariff liberalization and increasing competition could push politically connected firms to lobby for increased NTMs to protect their domestic market share. This may affect other firms' ability to integrate in GVCs through imports and exports.

- Connected firms are more likely to overcome barriers to entry, operation, and international trade. They are more likely to access government resources easier and receive special treatment (Eissa and Eliwa, 2021).

- These firms enjoy better access to information and may overcome obstacles to trade and investment easier than non-connected firms (for example, they may overcome inspections and administrative procedures more easily).

Hidden protectionism in MENA

- In Tunisia, politically connected firms were found more likely to evade tariffs on their imports and benefit from such cost advantage. (Rijkers et al., 2015). There is also a positive effect of having more connections and NTMs, measured by the number of products subject to TBTs. This result is robust for sectors with low tariffs (Kruse et al, 2021). Politically connected firms were also found to be four times more likely to operate in sectors with FDI restrictions (Rijkers et al., 2017).

Hidden protectionism in MENA

- In Egypt, Eibl and Malik (2016) show that political connections or ''crony capitalism'' could partly explain the imposition of standards in the market. In sectors populated by politically connected firms, a higher share of products subject to NTMs and a higher number of NTMs were observed. Abdel Latif and Aly (2019) find that politically connected firms are rather large firms. They also perform better in terms of employment.

- Government ownership increases Egyptian firms' likeliness to enter the exports market due to privileged connections and access to information (Aboushady and Zaki, 2019), and increases profitability and market value (Eissa and Eliwa, 2021).

What we do

- Using the World Bank Enterprise Surveys (2020), we examine to what extent trade policy and political connectedness represent a hidden protectionism that affects Egyptian firms' insertion into GVCs.

- We measure GVC participation using the four definitions proposed by Dovis and Zaki (2020): whether the firm exports, imports, has a foreign certification and foreign capital.

- This dataset is merged with different trade policy variables (tariffs, NTMs and Services AVE).

What we find

- Political connectedness matters for GVC integration
- Exchange with government officials is mostly insignificant for firms' GVC participation.
- The negative impact of investment-related obstacles is reduced for politically connected firms.

Outline

- Data and Stylized Facts

- Methodology

- Empirical Findings

- Conclusion and the Way Forward

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Variables Definition

- GVC:
  - The least strict definition includes firms that export and import simultaneously.
  - Two stricter definitions are related to firms who are simultaneously exporters and importers and have either an international certification or a share of its capital owned by a foreign firm.
  - The strictest definition combines the four criteria altogether.
- Political connectedness:
  - Whether the owner/CEO/top manager/board member ever elected/appointed to a political position and the payments
  - Exchange of favors with local/regional governments officials to affect policy

GVC at the World Level

GVC characteristics – Different definitions (by region)

	Two way	GVC Cert	GVC For	GVC All
East Asia & Pacific	9%	6%	3%	2%
Europe & Central Asia	27%	15%	5%	3%
Latin American & Caribbean	13%	5%	3%	2%
Middle East and North Africa	13%	6%	2%	1%
South Asia	7%	3%	0%	0%
Sub-Saharan Africa	15%	7%	4%	2%
All	13%	7%	3%	2%

Source: Authors' own elaboration using the WBES dataset (with weights).

GVC in Egypt

- With the exception of GVC1, Egypt's GVC indicators are slightly higher than MENA. GVC2 is slightly higher than global average, and GVC3 and GVC4 are slightly lower than the global average.

|	GVC definitions		
Definition 1 = Exporter + Importer	Definition 2 = Exporter + Importer + Certification	Definition 3 = Exporter + Importer + Foreign Capital	Definition 4 = Exporter + Importer + Foreign Capital + Certification

Source: Authors' own elaboration.

Share of firms engaged in GVC
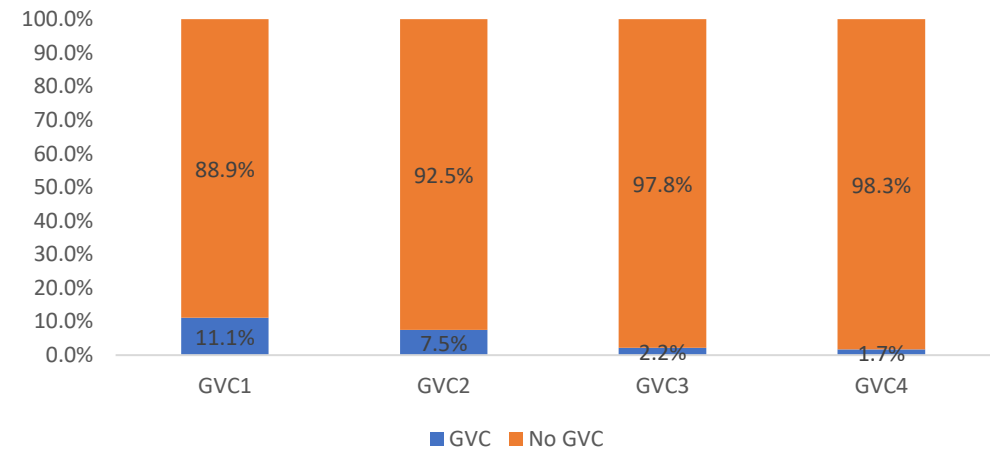
Source: Authors' own elaboration using the WBES

Investment climate in Egypt

**Top 10 business environment constraints**
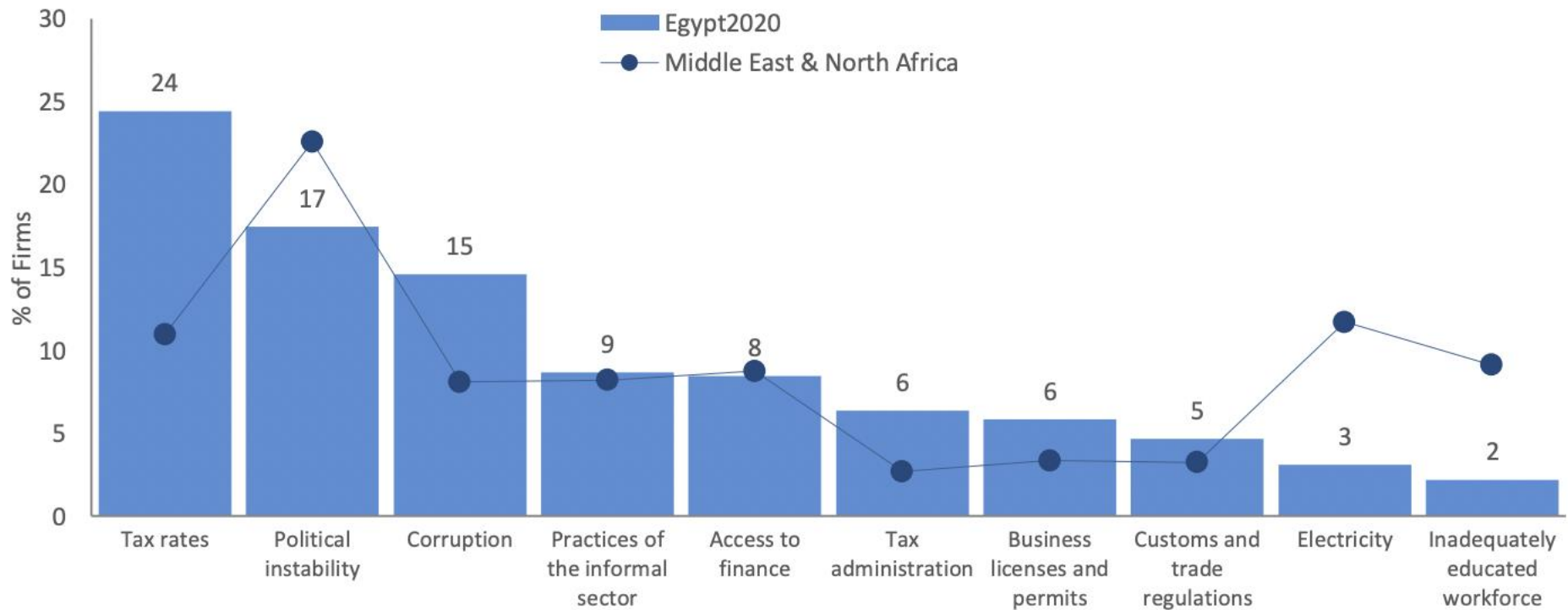
Source: WBES (2020)

Trade policy in Egypt

- Tariffs on manufactured products dropped after the conclusion of the EU-Egypt FTA, while tariffs on primary products increased sharply over the past two years.

- Applied tariff rates are currently at 14.4%. This is higher than applied tariff rates in other MENA countries like Tunisia (10.2%) and Jordan (4.8%) (Aboushady and Zaki, 2021).

Applied Tariff Rates (2002-2019)
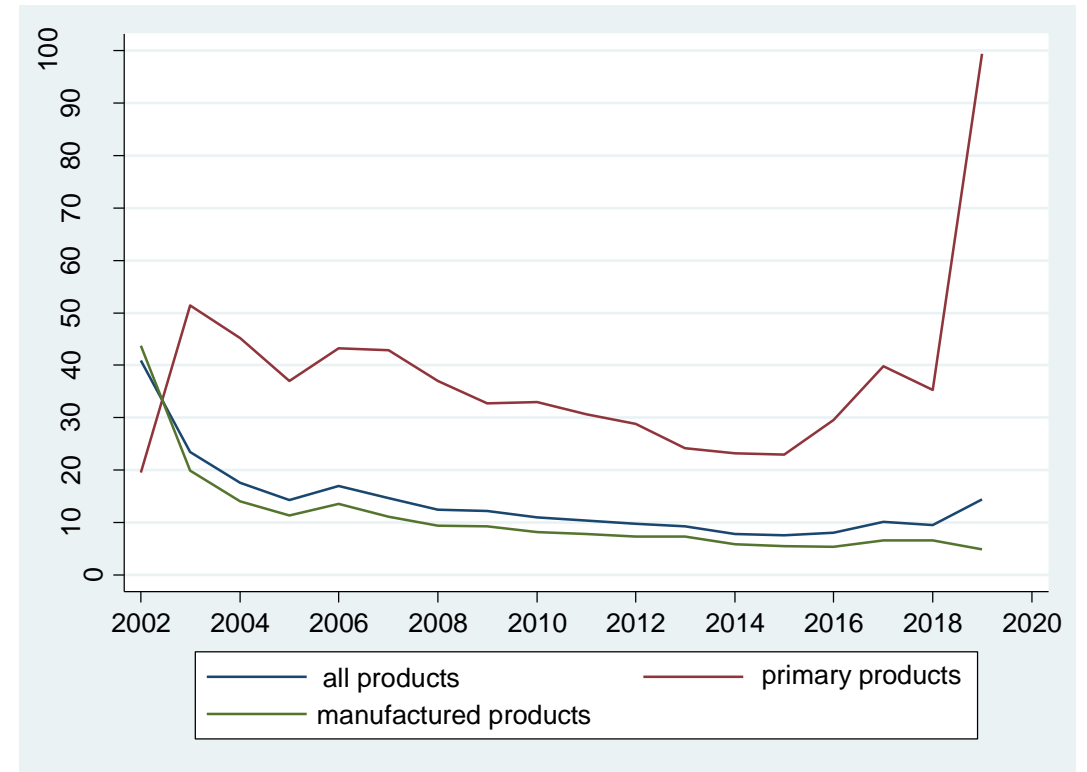
*Source: World Development Indicators, World Bank.*

Trade policy in Egypt (2)

- Sectors with comparative advantage (food& bev., apparel, leather products, woor products) are highly protected.
- In Egypt, 60% of imported products are covered by at least 1 NTM, and 25% by two or more NTMs (Eibl and Malik, 2016). Most of these are concentrated in sectors with comparative advantage that are also protected by relatively high tariffs.
- NTMs were found to affect the extensive and intensive margins of imports in Egypt (Ghali, 2013).

Applied Tariff Rate in 2011, by Sector (%)
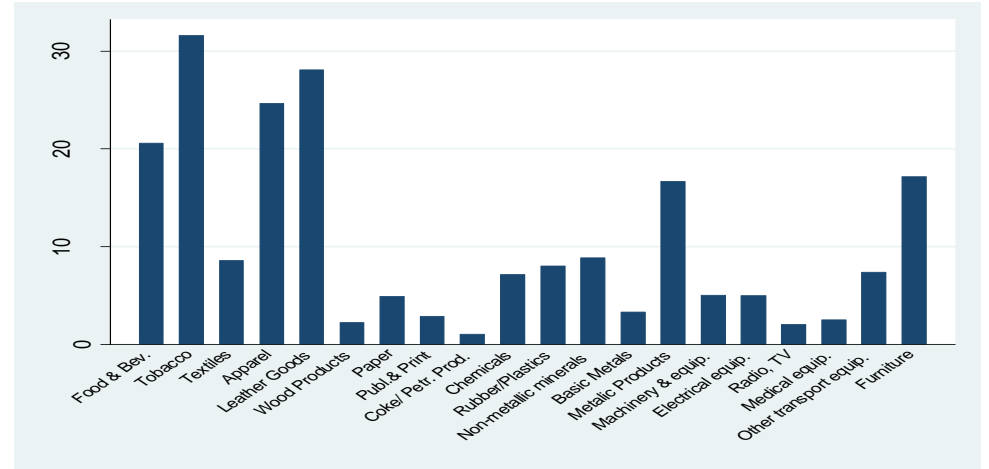
Source: WITS.

NTMs by sector
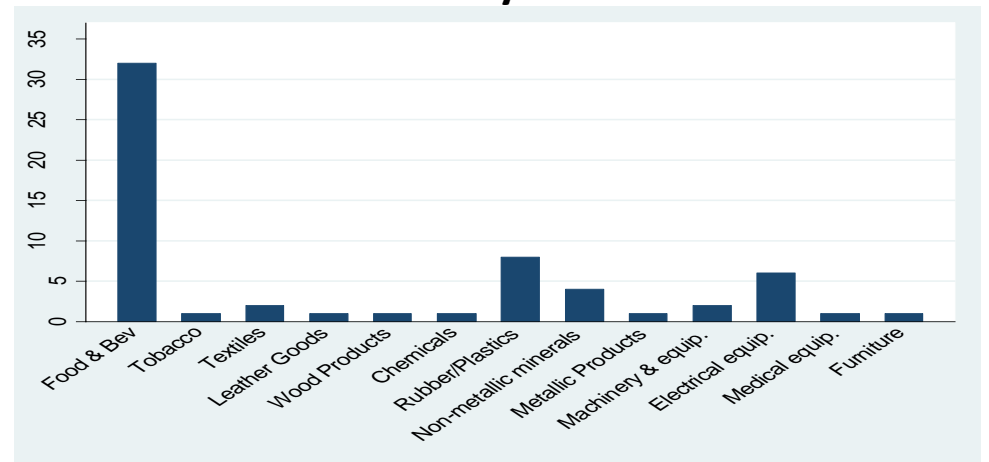
Source: WTO I-TIP

Trade policy in Egypt (3)

- Services in the MENA region remain relatively protected when compared to other developing regions (Karam and Zaki, 2020).
- Compared to other MENA countries, Egypt is the least protective. This is in line with the number of the commitments made by each country at the World Trade Organization.
- Similarly, the weighted AVE in the manufacturing sector is lower for Egypt than other MENA countries.

Ad-Valorem Equivalent of Services: Egypt and MENA countries
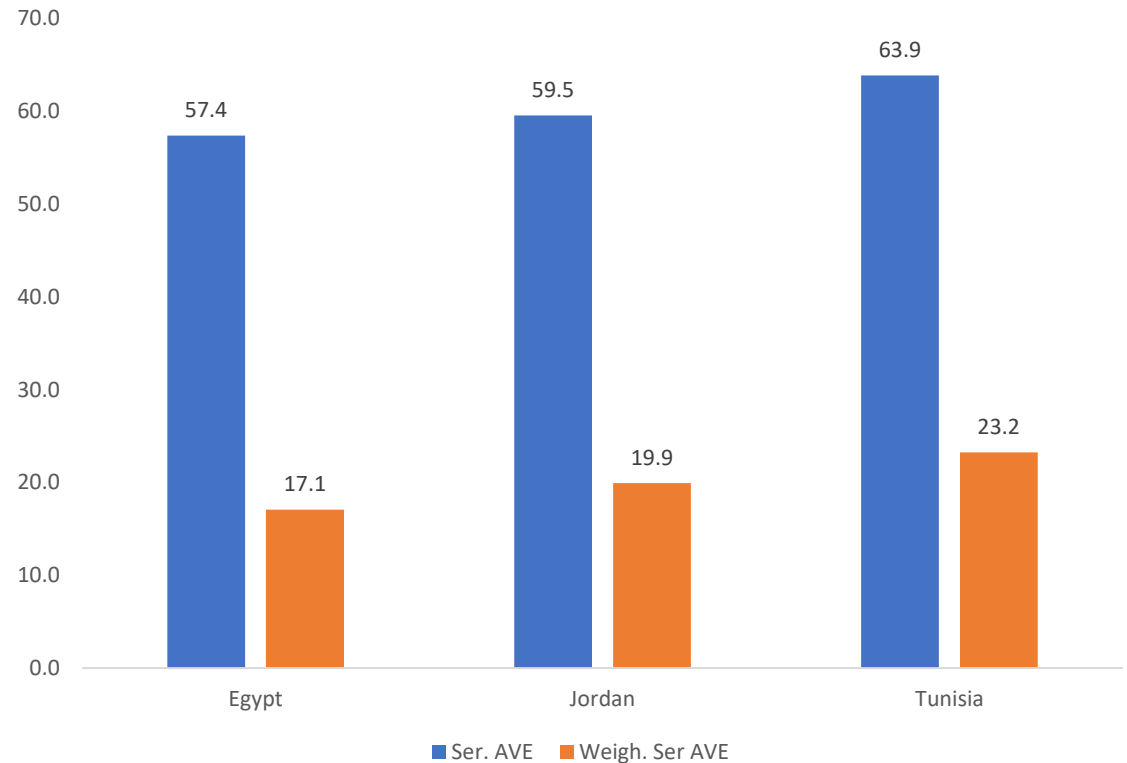
Source: Fontagné et al (2016) and Karam and Zaki (2019).

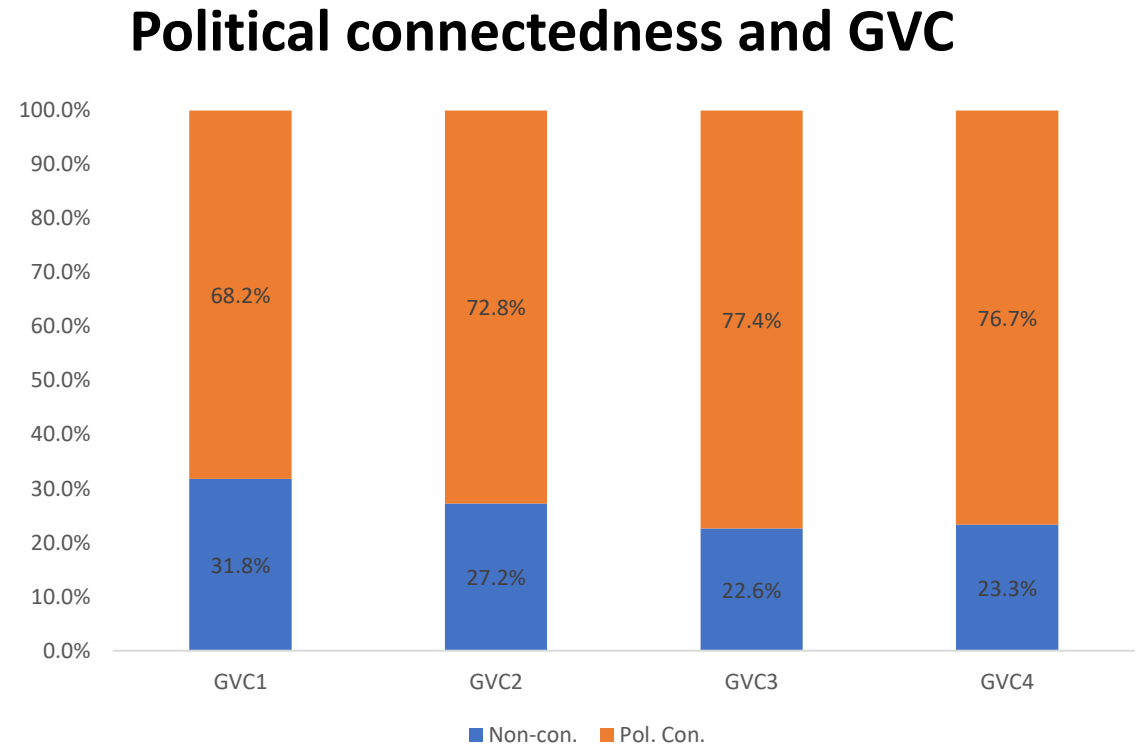# Political Connectedness and GVC

- Among all firms exporting and importing, 68.2% are politically connected.

- This share increases for the more complex definitions of GVC integration.

Political connectedness and GVC

Source: Authors' own elaboration using the WBES.

Political Connectedness and Trade Policy

- Politically connected firms face less NTMs than firms with no political connections.

- Many NTMs could be applied in unequal and non-transparent ways (inspections, import licenses, etc.), where politically connected firms would benefit from privileged treatment due to their connections.

- The difference is less obvious for tariffs and services restrictions.

Political connectedness and trade policy
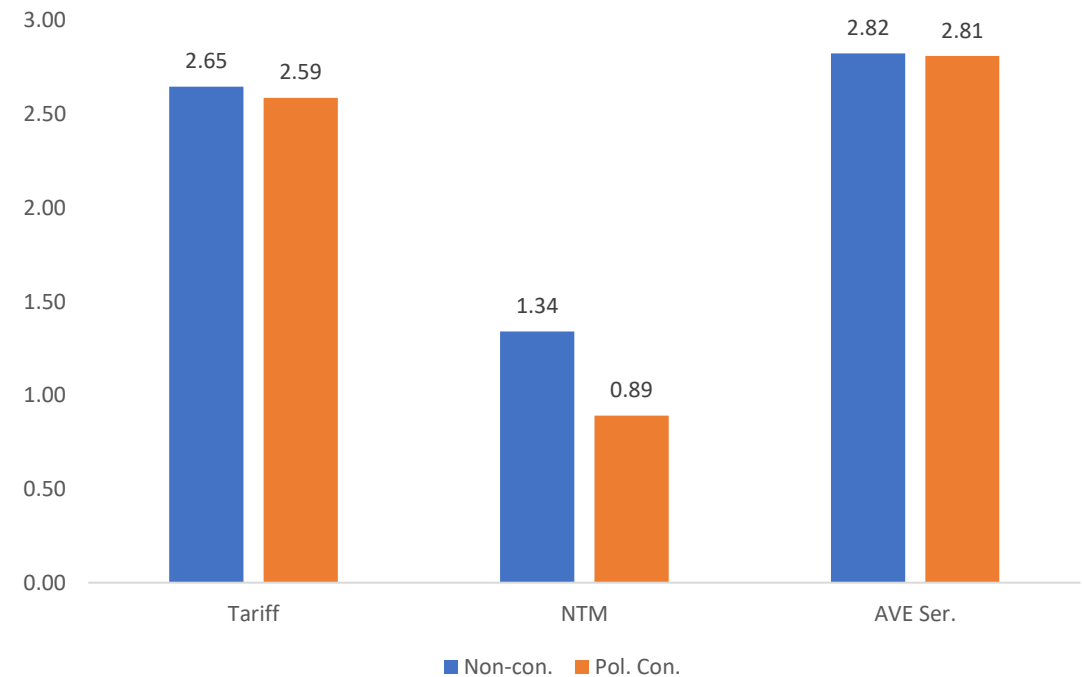
Source: Authors' own elaboration using the WTO datasets.

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Methodology

- In order to examine the effect of hidden protectionism on the insertion into global value chains, we run the following regression:

$$GVC_{isg} = \beta_0 + \beta_1 \, Pol. \, Con_{isg} + \beta_1 \, Size_{isg} + \lambda_s + \sigma_g + \epsilon_{isg}$$

where *GVCisg* measures the insertion of a firm *i* in sector *s* in governorate *g* into a GVC using four indices as suggested by Dovis and Zaki (2020). This variable is a dummy variable that takes a value of one if the firm is part of a GVC and zero otherwise. Pol. Con. Measures political connectedness (takes the value of one if the firm is politically connected and zero otherwise. We control for the size of the firm (*Sizeisg*), sector (*λs*) and governorate (*σg*) dummies to control for sectoral and geographical unobservables. *ϵisg* is the error term

Methodology

- This regression is extended in two ways:
  - First, we construct an index using the principal component analysis method for different obstacles faced by firms. These obstacles include whether finance, access to land, business license, corruption, customs, electricity, tax administration, tax rates and transportation are a severe or major obstacles for firms or not. We also interact this index with political connectedness to see whether politically connectedness reduce the obstacles faced by these firms or not.
  - Second, we introduce three measures of trade policy: the number of non-tariff measures, the ad-valorem equivalent of services used in the corresponding manufacturing sector and the average tariff.
- For the sake of robustness, we run a propensity score matching regression where the treatment is politically connectedness and firms using Mahalanobis matching to adjust for treatment observable differences between treated and untreated.

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Baseline specification.

- Political connectedness matters for all GVC definitions.

- Exchange with government officials seems to be less important. The coefficients are only significant for GVC 1 (exports + imports) and GVC2 (exports + imports +intl. certification)

Table 1: Baseline Regression I

	GVC1	GVC2	GVC3	GVC4
Pol. Connect.	0.0663***	0.0654***	0.0243***	0.0147*
	(0.0206)	(0.0172)	(0.00924)	(0.00795)
	0.0144	0.00639	0.0119*	0.00775
Constant	YES	YES	YES	YES
Size dum.	YES	YES	YES	YES
Industry dum.	YES	YES	YES	YES
Gov. dum.	YES	YES	YES	YES
Observations	3,075	3,075	3,075	3,075
R-squared	0.131	0.135	0.029	0.029

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2: Baseline Regression II

	GVC1	GVC2	GVC3	GVC4
Exch. Gov. Official	0.0230**	0.0160*	0.000573	0.00319
	(0.0116)	(0.00943)	(0.00555)	(0.00469)
Constant	YES	YES	YES	YES
Size dum.	YES	YES	YES	YES
Industry dum.	YES	YES	YES	YES
Gov. dum.	YES	YES	YES	YES
Observations	2,530	2,530	2,530	2,530
R-squared	0.141	0.138	0.029	0.031

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Baseline specification (2)

- When introduced together, political connectedness still matters across all 4 definitions of GVC participation, while exchange with government officials is only significant for GVC1.

	GVC1	GVC2	GVC3	GVC4
Exch. Gov. Official	0.0225*	0.0155	0.000352	0.00306
	(0.0116)	(0.00941)	(0.00555)	(0.00468)
Pol. Connect.	0.0532**	0.0548***	0.0248**	0.0151*
	(0.0208)	(0.0169)	(0.00998)	(0.00843)
Constant	YES	YES	YES	YES
Size dum.	YES	YES	YES	YES
Industry dum.	YES	YES	YES	YES
Gov. dum.	YES	YES	YES	YES
Observations	2,530	2,530	2,530	2,530
R-squared	0.143	0.142	0.031	0.032

Table 3: Baseline Regression III

Standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Political Connectedness and Obstacles

- The interaction term between political connectedness and investment-related obstacles is negative and significant.

- Political connectedness reduces the negative effect of investment related obstacles.

Table 4: Political Connectedness and Obstacles

	GVC1	GVC2	GVC3	GVC4
Pol. Connect.	0.0656***	0.0649***	0.0245***	0.0147*
	(0.0206)	(0.0171)	(0.00924)	(0.00795)
Obstacle	0.0104	0.00868	-0.00136	0.00133
	(0.00966)	(0.00804)	(0.00433)	(0.00373)
Pol. Connect.*Obs.	-0.112***	-0.103***	-0.0206	-0.0236*
	(0.0369)	(0.0307)	(0.0166)	(0.0143)
Constant	YES	YES	YES	YES
Size dum.	YES	YES	YES	YES
Industry dum.	YES	YES	YES	YES
Gov. dum.	YES	YES	YES	YES
Observations	3,075	3,075	3,075	3,075
R-squared	0.133	0.138	0.029	0.030

Standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Political Connectedness and Trade Policy

- Tariffs and NTMs are only significant for GVC1 and GVC2, with expected signs.

- AVE of services is found to be positive and significant across the 4 definitions of GVC. Higher restrictions on services appear to increase GVC participation.

Table 8: Political Connectedness and Trade Barriers

	GVC1	GVC2	GVC3	GVC4
Pol. Connect.	0.0883	0.105*	0.00981	0.0149
	(0.0508)	(0.0484)	(0.0209)	(0.0202)
Tarif	-0.00376**	-0.00316**	-0.000587	-0.000701
	(0.00139)	(0.00108)	(0.000366)	(0.000392)
NTM	-0.0170**	-0.0111**	-0.00174	-0.00119
	(0.00574)	(0.00376)	(0.00181)	(0.00171)
AVE Ser.	0.146***	0.123***	0.0373**	0.0302**
	(0.0373)	(0.0202)	(0.0148)	(0.0111)
Constant	YES	YES	YES	YES
Size dum.	YES	YES	YES	YES
Gov. dum.	YES	YES	YES	YES
Observations	1,992	1,992	1,992	1,992
R-squared	0.152	0.146	0.028	0.028

Standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

PSM Results

- We run a propensity score matching regression where the treatment is politically connectedness and firms using Mahalanobis matching to adjust for treatment observable differences between treated and untreated.

- The treatment is found to be positively affecting integration into GVCs.

Table 9: PSM results

	GVC1	GVC2	GVC3	GVC4
Pol. Connect.	0.140**	0.163**	0.0400*	0.0443**
	(0.0697)	(0.0693)	(0.0212)	(0.0212)
Observations	1,992	1,992	1,992	1,992

Standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

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Conclusion

- Political connectedness matters for GVC integration, whether according to the least strict definition (exports and imports) or according to more complex definitions including foreign certification and foreign ownership.

- Exchange with government officials is mostly insignificant for GVC participation.

- The negative impact of investment-related obstacles is reduced for politically connected firms.

- In the context where Egypt is to attract investments and increase its share in global trade through better GVC participation, hidden protectionism from trade policy measures and political connections is likely to offset liberalization efforts and potential investment-related reforms.

- Increasing transparency and levelling the playing field for firms investing in Egypt is a precondition for better integration in the international market.

Further Research

- For a richer analysis of political connections in the region and their impact on the countries' integration in GVCs, future research could include other MENA countries, such as Jordan, Morocco, Tunisia.

- For a better understanding of the trade policy-political connectedness nexus, interaction terms including trade policy measures (tariffs, NTMs, AVE of services) and political connectedness can be introduced to investigate the impact of trade policy measures on politically connected firms compared to other firms.

- A better measure of NTMs (ad-valorem equivalent).

- Government ownership and/or previous government ownership can also imply the existence of political connectedness and could explain better GVC integration. Further analysis is to be conducted.

Thank you for your attention