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## **Editorial: Shadow economy and inward foreign direct investment**

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Global foreign direct investment (FDI) flows and stocks sustained their accelerating growth rates despite the great recession caused by the global financial crisis of late 2010s. Global FDI stocks grew by approximately 3.4 times during 2001–2018, reaching almost US\$32.9 trillions in 2018.<sup>1</sup> Besides its importance due to its increasing size, FDI had also been considered as a mean to speed up economic recovery after the great recession (Bitzenis and Vlachos, 2016; Vlachos and Bitzenis, 2018). The facts that several economies did not reach their pre-crisis levels of investment and employment (Vlachos and Bitzenis, 2019), and the economic impact of COVID-19 pandemic, maintain focus on FDI as a means to speed-up economic recovery.<sup>2</sup>

Two of the key strands of the literature on hosts' FDI attractiveness are about the drivers and the impact of FDI. The informal economy could also be considered as host's characteristic affecting both its attractiveness and the impact of inward flows. Although the literature on FDI and the informal economy is still at its infancy, the results of most studies indicate the existence of a positive relationship. Berdiev and Saunoris (2017) find that economic globalisation does not increase the informal economy. Ali and Bohara (2017) find that an increase in the informal economy rate of the host economy relative to the investor economy increases inward FDI. Liu et al. (2021) find that the informal economy of the host country enhances its FDI inflows from China. Cuong et al. (2021) find that the informal economy has a positive effect on greenfield FDI and a negative effect on cross-border mergers and acquisitions. Goel et al. (2020) find that FDI increases the informal economy.

**Table 1** Shadow economy and inward FDI correlation for selected euro area member states

<i>Member states/indicators</i>	<i>SE</i>	<i>C1</i>	<i>C2</i>
Cyprus	28.2%	0.71	0.80
Greece	24.9%	0.92	0.83
Spain	22.2%	0.97	0.95
Italy	21.8%	0.90	0.89
Portugal	19.7%	0.85	0.87
France	12.9%	0.89	0.89
Germany	11.4%	0.76	0.69
Netherlands	9.9%	0.73	0.74

Notes: SE – Shadow economy average percent of GDP for the period 1991–2017.

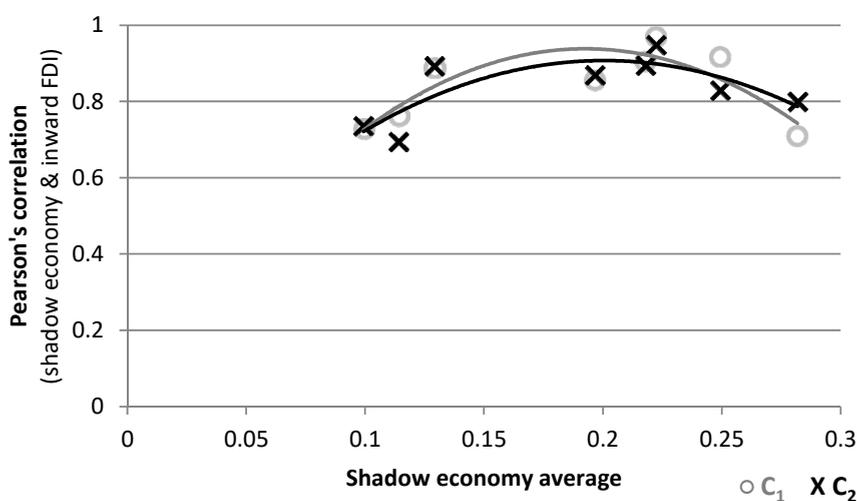
C1 – Pearson's correlation between shadow economy and inward FDI.

C2 – Pearson's correlation between shadow economy ( $t - 1$ ) and inward FDI.

*Source:* Own calculations

Based on data about the size and development of the shadow economy<sup>3</sup> in terms of GDP from Medina and Schneider (2020), FDI inward stock, and GDP (US\$ at current prices in millions) from UNCTADSTAT, we give a glimpse of this relationship in Table 1. Table 1 indicates the existence of a positive correlation between the size of the shadow economy and inward FDI for selected core and periphery euro area member states. From a long-term perspective, Figure 1 indicates that a larger shadow economy does not necessarily mean a higher correlation between the size of the shadow economy and inward FDI. The results of the Engle-Granger cointegration test in Table 2 indicate that there is evidence for a cointegrating relationship between the shadow economy and inward FDI only for Italy and Spain (p-values in italics).<sup>4</sup> Thus, the existence of long-run relationship in this small sample is rather limited.

**Figure 1** Shadow economy and inward FDI correlation for selected euro area member states



**Table 2** Shadow economy and inward FDI cointegration test for selected euro area member states

Member states	Without constant	With constant	With constant and trend
Cyprus	0.78	0.77	0.85
France	0.46	0.31	0.79
Germany	0.40	0.39	0.39
Greece	0.24	0.27	0.63
Italy	0.36	0.23	<i>0.04</i>
Netherlands	0.82	0.81	0.63
Portugal	0.83	0.96	0.99
Spain	0.45	0.69	<i>0.08</i>

Note: Cointegrating regressions asymptotic p-values (unit root tests on the residuals from the cointegrating regressions).

Source: Own calculations

This brief exploration indicates that the existence of a positive relationship requires further investigation as several questions still remain unanswered. In particular, why countries with large shadow economies have low volumes of inward FDI stock? For example, the levels of tax morale in Greece (Bitzenis and Vlachos, 2018) are among the lowest and the size of the shadow economy (Bitzenis et al., 2016a) among the highest in the European Union (EU), at the same time as the size of inward FDI stock is among the lowest in the EU.<sup>5</sup>

This special issue focuses on ‘Foreign direct investment and the shadow economy in the aftermath of the global financial crisis’ and aims to deepen our understanding of the relationship between the informal economy and FDI, and the relationship between informality and the business environment in countries with large informal economies.

Nathapornpan Piyaarekul Utama and Rapipong Promnart investigate the effect of the shadow economy on the inward FDI efficiency of member states of the Association of Southeast Asian Nations. Their results indicate that as the size of the shadow economy increases, inward FDI inefficiency decreases.

Folorunsho Monsuru Ajide, James Temitope Dada and Johnson Kolawole Olowookere investigate the symmetric and asymmetric effect of the shadow economy on Nigeria’s manufacturing sector FDI. Their results indicate that while the short-run relationship between the shadow economy and FDI may be negative, it may be positive in the long-run.

Ali Lamouchi and Abdelkader Mohamed Sghaier Derbali investigate the institutional determinants of FDI in developing countries. Their results indicate that the index of economic freedom (part of which reflects the size of the informal sector) has a significant effect on FDI.

Shagun Bansal and Anjani Kumar Singh investigate the informality drivers of micro and small enterprises in India, a country with a considerably large informal economy. Their results indicate that the key determinants are the shortage of formal employment opportunities, tax evasion and ignorance of formal procedures.

John Marangos, Eirini Triarchi, Themis Anhtrakidis, Alexandra Dimitriadou and Angeliki Nestoroudi investigate the effect of the Greek economic crisis on the country’s inward and outward FDI and size of the shadow economy. Their conclusion is that the inward and outward FDI recovery and the reduction of the shadow economy in the aftermath of the Greek economic crisis provide a unique opportunity to policymakers to sustain economic recovery with the boost of FDI, without increasing the size of the shadow economy.

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## Notes

- 1 Data from UNCTADSTAT [online] [https://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sCS\\_ChosenLang=en](https://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sCS_ChosenLang=en) (accessed 20 May 2021).
- 2 See World Economic Forum [online] <https://www.weforum.org/agenda/2020/12/focus-fdi-covid-recovery/> (accessed 20 May 2021).
- 3 The shadow economy is the part of the informal economy which involves the supply of legal goods and services through illegal practices (informal work, etc.). The (activities of) shadow economy can, under certain conditions, be transferred to the official economy. The transfer is part of the EU goal to improve living standards and social cohesion (Bitzenis et al., 2016b).
- 4 The p-values of the unit root test with constant and trend on the residuals from the cointegrating regression are less than 0.05 and 0.10, respectively.
- 5 FDI position data from Eurostat [online] <https://ec.europa.eu/eurostat/data/database> (accessed 20 May 2021).