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EXPOSURE OF EUROPEAN COUNTRIES TO CONTEMPORARY ASYMMETRIC SHOCKS[49]

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Abstract: *This paper is attempting to investigate supply and demand shocks in the EU and the ways they can be smoothed. This is of particular importance to European countries that need to make decisions whether to join the European Monetary Union as well as for those for which the participation in the EMU is already negotiated in order to find out if it was the right decision. The ongoing COVID-19 outbreak causes a macroeconomic impact by influencing the supply and demand of labour and thus contributing to further asymmetric shocks.*

Keywords: *Asymmetric Shocks, Supply and Demand Shocks.*
JEL Codes: *E59, E69*

INTRODUCTION

There are several reasons for which the exchange rate can be considered an instrument of correcting differences between countries, not only from a theoretical but also empirical point of view. These are *shifts in demand, different preferences of countries for inflation and unemployment, differences in legal systems, unequal growth rates* and *different fiscal systems.* The introduction of the euro as a single currency in 2002 in EMU is a test for the creation of an *Optimal Currency Area (OCA*) in Europe.

Asymetic shocks are a normal companion to almost any economy world-wide. A problem with the asymmetric shocks arises when they are too powerful and not easily dealt with, once they occure. Therefore it is important to find the adequate channels to smooth these shocks and thus mitigate the crises associated them. The unpredicted crises, triggered by the COVID-19 pandemic, places a challenge to test the resistence of economies to shocks of demand and supply. Moreover, it reopens the issue of what governmental measures could help reduce the effect of the decrease of the demand and supply.

EXPOSITION

Shocks can be classified in two ways: either as *common* or *country specific,* either as *temporary or permanent.*

Shocks are *asymmetric* if they are *country specific,* such as policy shocks, resource shocks or changes in behaviour. *Common shocks* (Blanchard, 1998)*,* such as external shocks or sector specific shocks, may have asymmetric consequences due to differences among countries in initial situations or economic structures.

Shocks can be smoothed via:

a) International (spatial) risk sharing made possible through access to international capital markets;
b) Consumption smoothing through use of savings and access to international credit markets.

Consumption smoothing involves the choice consumers make on different dates. The temporary shocks of consumption are caused by fluctuations in income. The consumption buffer is

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created through use of savings as well as through borrowings in international credit markets. On a microeconomic level the household risk-sharing channels smoothing consumption include basic and capital income, saving/dissavings, public transfers other than pensions, informal transfers and durable expenditures (Asdrubali, 2020).

In a monetary union, the impact of country-specific shocks can be smoothed through different channels (Asdrubali, 2018):

a) Factor markets
b) International transfers,
c) Credit markets,
d) Risk sharing on total consumption,
e) Government consumption,
f) Risk sharing on private consumption,
g) Relative prices
h) Exchange rates

Research work demonstrates that EMU's responds to shocks is still weaker, as compared to federations, and it is vulnerable during crises. The EMU contributed to financial integration but at the same time the country-specific shocks need to be smoothed. The EMU is financed largely by credit markets and not so much by capital markets. Capital markets are those that tend to perform more stable over the troughs of the business cycles. It seems that the EMU has some capacity to smooth consumption, but apparently not enough in order to provide sufficient risk sharing during periods of crises. "A possible explanation for it is that financial debt instruments, particularly the wholesale funding of banks, rather than cross-country ownership of equity, dominated financial integration in Europe. This has important implications, since capital markets are less subject to reversal and can absorb loss associated with permanent shocks, whereas intertemporal consumption smoothing can only address temporary shocks" (Alcidi, 2017).

After the COVID-19 outbreak, most of the governments world-wide introduced social distancing. The measures lead to the shutdown of entire sectors of the economy, especially those that provide physical contact services like hotels, restaurants, public transport etc. Many people remain at home and start working remotely (the so-called lockdowns). The consumers reduce consumption of these and other services. Many workers get unemployed and reduce purchases of goods and services. "This, combined with uncertainty about the evolution of the pandemic, leads to a reduction in demand for goods and services across the board, affecting not just these locked down sectors" (Gourinchas, 2020).

Most economists consider that the economic effects of the anti COVID-19 measures imply the so-called "supply and demand shocks" (Baldwin, 2020). A supply shock diminishes the ability of the economy to produce goods and services at given prices. Public health authorities and employers stopping service workers from doing their jobs cause a supply shock. A demand shock decreases the ability and/or the readiness of consumers to purchases goods and services at given prices. People who stay and eat at home instead of going to restaurants cause demand shock, for example. The unemployed may stop or severely decrease buying durable goods because of insufficient income. Thus they additionally contribute to the demand shock in those specific sectors.

Conventional monetary and fiscal policy can be applied to reduce aggregate demand shocks, but there are also other possibilities concerning cushioning a supply shock. Understanding whether a shock is caused by supply or demand is therefore very important for the design and implementation of stabilisation policies. Authorities can apply for instance, credit policy to sectors that are not part

of the lockdown but are prone to the aggregate shocks. "This implies that it is not just important to understand whether this shock in the aggregate has to do with supply and demand, but it is also crucial to understand this at the sector level" (Guerrieri, 2020).

A different approach is used by (Brinca, 2020), who process the data on hours worked and wages to estimate labour demand and supply shocks for the aggregate economy and for different sectors, using an econometric model. The used methodology is to observe hours and wages (prices and quantities). If the movements are in the same direction, it is assumed that they are caused by a demand shock. If the movements are in the opposite directions, it is assumed that they are caused by a supply shock.

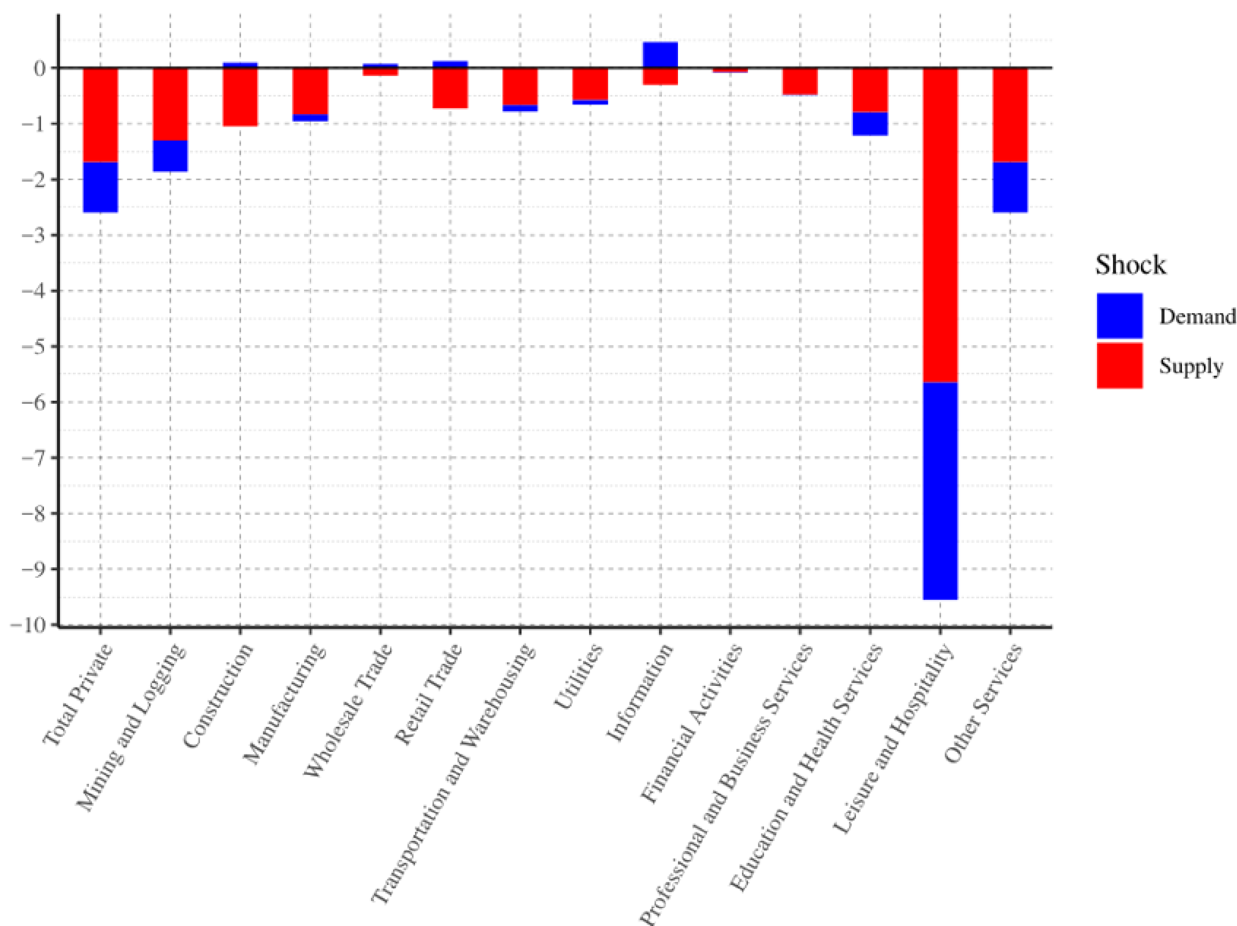

Fig. 1 Shock decomposition for March 2020 – initiation of the lockdown. Source (Brinca, 2020)

The sectors leisure and hospitality were largely affected, where the working hours fell by almost 10%. Again, supply played a slightly larger role than demand. The demand shock in almost all sectors was larger than the supply shock. Retail and whole sale were sectors benefiting as people started preparing their own food at home.

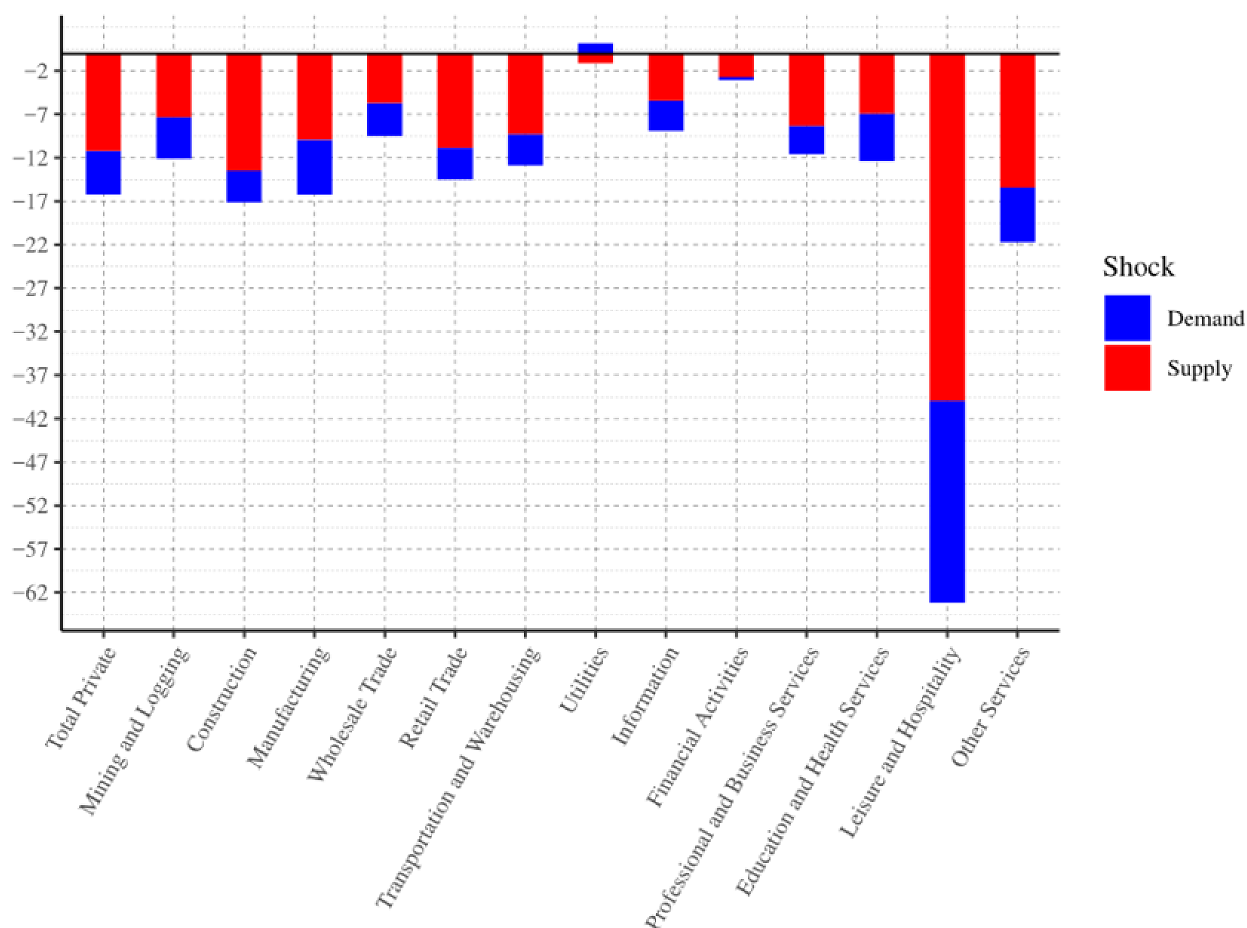

Fig. 2 Shock decomposition for April 2020 – first full month of lockdown. Source (Brinca, 2020)

The total effect on hours worked during April 2020 was much larger across sectors, with total private employment falling by almost 17 percentage points. Most of the sectors demonstrate a two-thirds decrease to be associated with supply. Also, during this month, the positive demand shocks in sectors such as retail and information vanished, or even reversed.

CONCLUSION

The research shows that the EMU is still vulnerable during crises. The EMU contributed to financial integration but at the same time the country-specific shocks need to be smoothed further. The financial debt instruments which dominated financial integration in Europe are bank credits, rather than cross-country ownership of equity. Capital markets are less subject to reversal and can absorb loss associated with permanent shocks, whereas intertemporal consumption smoothing can only address temporary shocks.

The contemporary COVID-19 pandemic forces consumers to reduce consumption. Many workers get unemployed and they decrease purchases of goods and services. The uncertainty about the evolution of the pandemic, leads to an ongoing reduction in demand for goods and services, affecting not just these locked down sectors. All of these contribute to the contemporary asymmetric shocks. Understanding whether a shock is caused by supply or demand is therefore very important for the design and implementation of stabilisation techniques, including fiscal and monetary policies.

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