

# TOWARD THE "NEW NORMAL" AFTER COVID-19 - A POST-TRANSITION ECONOMY PERSPECTIVE

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# 1. The economy battling Covid-19: A macroeconomic approach



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#### Abstract

**Purpose:** The chapter identifies the complexities of Covid-19's impact on the economy. The empirical part presents and assesses initial reactions of inflation, industrial production, unemployment rate, Gross Domestic Product (GDP) growth rate, and shifts in the GDP expenditure structure.

**Design/methodology/approach:** A complete Keynesian macroeconomic model is used to outline how the negative shock hit the economies. The model shows potential implications of the use of reactive economic policy measures. Based on the model, the empirical part provides comparative analyses of reactions of four economies of the European Monetary Union (EMU) – namely France, Germany, Italy and Spain – two non-EMU economies of Hungary and Poland, and two major large open economies: the USA and Japan.

**Findings:** The Covid-19 pandemic has sent a universal, global shockwave with asymmetric outcomes in individual economies. Covid-19 hit all economies and struck both the demand side and – after a short time lag – the supply side. Although interconnected, the economies have maintained notable structural differences and, therefore their autonomous reactions to negative demand and supply shocks were diverse.

**Practical implications:** The complete macroeconomic Keynesian model allows for the conceptualization of the transmission of the Covid-19 shock on the economy's supply and demand sides. The model is also a helpful tool in the analysis of the potential role of economic policy in reaction to the supply and demand shocks triggered by the pandemic.

**Originality and value:** The empirical analyses unveil the eight economies' differentiated reactions to similar counter-crisis policy measures. Their scale in all cases pushed the state

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back to the center of economic life. This structural shift requires attention and systematic theoretical and empirical studies.

Keywords: complete macroeconomic model, Covid-19, supply and demand shocks.

#### 1.1. Introduction

This chapter aims to identify and assess the complexities of Covid-19's impact on the economy. The Covid-19 pandemic has sent a universal, global shockwave with asymmetric outcomes on individual economies. The universality of the harmful disturbance has at least two dimensions. Covid-19 hit all economies without exception and it struck both the demand side and – after a short time lag – the supply side as well. Particular economies, although strongly interconnected, have maintained notable structural differences. Therefore, their autonomous reactions to negative demand and supply shocks were diversified.

In order to show the morphology of these compound reactions, a complete macroeconomic Keynesian model is used. It offers insights into how economies autonomously reacted to the disturbances. Therefore, it allows for the conceptualization of the transmission of Covid-19 on the demand and supply sides of the economy and offers insights into actual and potential shifts in their structure. The complete model is also a useful tool to present the potential role of economic policy in reaction to the demand and supply shocks triggered by the pandemic.

# 1.2. The pandemic of 1918–1920

The flu pandemic that appeared in March 1918 to April 1920 took a greater death toll than the First World War (Table 1).<sup>1</sup> It broke out during the 1918 heavy fights on the First World War fronts in 1918. After four years of battle, malnutrition and the huge scale of the mass mobility of soldiers and civilians, the population of European countries became profoundly vulnerable. After the Armistice in November 1918, the Bolshevik revolution continued in Russia. The fight there brought a high death toll, starvation of millions of people and disorganization of primary public functions. The Poland that reemerged in 1918 fought her own war with Bolshevik Russia in 1919–1920. That war established the final pattern of Poland's eastern borders.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> According to some estimates, the total number of a death toll was higher than both world wars of the XXth century. See: How the Spanish flu of 1918–20 was largely forgotten, 2020, and Johnson & Mueller, 2002.

<sup>&</sup>lt;sup>2</sup> The Polish-Bolshevik war formally ended with the signature of the Peace of Riga in March 1921.

Location	Published death toll (in 1,000)
Africa	2,375,000
Nigeria	455,000
The Americas	
Total Latin Am	766,000
Total North Am	725,000
The USA	675,000
Asia	26–36,000,000
India	18,500,000
Europe	2,300,646
Russia/Soviet Russia	450,000
Italy	390,000
Spain	257,000
Oceania	85,000
Australia	14,528

Table 1. Mortality of the 1918-1920 influenza pandemic

Source: Own elaboration based on (Johnson & Mueller, 2002, pp. 105–115).

Due to the war efforts and in order not to spread bad news countries at war filtered not only military news from the fronts but also censored any news that could harm the civilian determination aimed at providing the armies with supplies. Therefore, the first press news about the deadly flu was released by newspapers in Spain, a country that did not take part in the First World War.<sup>3</sup> There were four waves of the Spanish flu. It is impossible to establish the precise numbers of cases and those who died of the flu, but the most hit was Asia (Table 1). The total death toll was over 2% of the world's population of that time.

In Europe a very high death toll was recorded in Hungary, Italy, Spain and the former Russian Empire at that time (Barro, Ursua, & Weng, 2020). Despite the fact that people continued to suffer and die due to flu after the Armistice of November 1918 up to the beginning of 1920, in a certain sense the flu was linked to the war and it was counted as part of that tragedy. Delayed social distancing

<sup>&</sup>lt;sup>3</sup> That was the origin of the name of the deadly flu.

was the principal measure that was used to stop the pandemic. Very high numbers of flu cases and the death toll harmed the postwar economies and hindered their economic recovery. There are estimations that in countries that fought in the First World War the real GDP per capita declined on average by above 8%, while the Spanish flu reduced it by an additional 6% (Barro et al., 2020).

# 1.3. The beginning of the Covid-19 pandemic

The first scattered news about a new virus in the city of Wuhan (capital of Hubei province in the People's Republic of China (PRC) was spread in December 2019. At the beginning, due to the specific hierarchical state and party structure, the province and state officials played down any queries about the new disease. On January 3, 2020, the Chinese government decided to notify the World Health Organisation (WHO) that a "severe pneumonia of unknown aetiology" had been discovered in Wuhan (Mitchell, Sun, Liu, & Peel, 2020). The authorities, despite evident facts, maintained that the scale of the disease was limited. To show this social gatherings continued in Wuhan. On January 18, one such gathering attracted 40,000 families. Five days later (January 23) the eleven million population of Wuhan entered strict quarantine. However other Hubei province cities continued their unrestricted functioning. This path of events and lack of decisive, concentrated actions was a combination of the centrality bias, lack of transparency, contradicting messages and national pride. They all contributed to a sizable time lag in acknowledging both by the PRC authorities and the WHO that there had been "limited human-to-human transmission" in the city of Wuhan.

The time lag in announcing and designing effective anti-virus measures caused what is now called coronavirus to spread swiftly to other countries. The first case was recorded as early as January 14, 2020, in Bangkok, Thailand. Other cases soon were announced in neighbouring Hong Kong, Japan, Macau, South Korea and Taiwan. In February the first cases were signalled on other continents. In March the pandemic broke out in Northern Italy to spread rapidly on a massive scale throughout Europe and both Americas. Table 2 presents data on Covid-19.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Data for the People's Republic of China, due to discrepancies in reporting, has not been included in the table. In the rest of the chapter, the analyses are focused on eight countries; Japan and the USA represent high-income economies. France and Germany are also advanced economies and play a key economic role in the EU. Italy and Spain suffered very much during the pandemic of 1918–1920 as in the time of Covid-19. These four countries belong to the Eurozone. Both Hungary and Poland belong to nations that incurred heavy losses due to Spanish flu and Covid-19. Hungary and Poland do not belong to the Eurozone.

In mid-November 2020, as the data on cases and the death toll shows, Covid-19 in its first eleven months is less alarming than the influenza pandemic that broke out at the end of the First World War. Interestingly, in the twenty first century again the USA, Italy, Spain and France recorded the highest numbers of cases and high death tolls (Table 2).

Location	Case – cumulative total (in 1,000)	Case –cumulative total (in 1,000) per 1 million population	Death toll (in 1,000)
Global	52,852,674	6,710*	1,295,328
France	1,862,666	28,536	42,628
Germany	751,095	8,965	12,200
Hungary	131,887	13,652	2,883
Italy	1,066,401	17,638	43,589
Poland	641,496	16,950	9,080
Spain	1,437,220	30,740	40,461
Japan	114,983	909	1,880
The USA	10,460,365	31,602	241,186

Table 2. Covid-19 cases in selected countries as of November 14, 2020

\*own estimation.

Source: (World Health Organisation [WHO], 2020).

Initially, without any vaccine, countries had to follow standards of social distancing and thus introduce strict lockdowns. The lockdown inevitably froze sectors that relied on people's mobility the most. The drop in the aggregate demand of their economies was augmented by disturbances in the aggregate supply, stemming mostly from lockdowns in various spots in the global value chains. The PRC – a country from which the disease spread – due to its centrality, ability to impose strict lockdown measures, and stern surveillance of the population, was able to reduce the threat of further contamination and, so far, has not let the coronavirus hit the country's economy in the form of the second wave. According to the official PRC data its economy has returned to growth.

### 1.4. Conceptualization of the Covid-19 macroeconomic shock

As already noticed in Introduction *we are all Keynesians now.*<sup>5</sup> The reason is simple; the scale of a negative economic shock stemming from Covid-19 is such that there is a consensus regarding the need of a massive intervention in national economies with the use of fiscal, monetary and direct control instruments. Without such economic policy actions, the economies will continue to be destabilized bearing heavy social costs threatening political stability (Chomsky, 2020; Gopinath, 2020; Kowalski, 2020, p. 42).

In this chapter a complete Keynesian SRAS/LRAS/AD model is used to outline the ways the negative shock hit the economies and to show potential implications of the use of reactive economic policy measures.<sup>6</sup> The model corresponds to the IS/LM/BP concept (Abel, Bernanke, & Croushore 2016; Kowalski, 2013, pp. 20–22, 37–64;). It also allows for thinking about economic policy design in terms of the philosophy introduced by Jan Tinbergen (1952). The advantages of the SRAS/LRAS/AD model are such that it combines short and long-term considerations that are easily expressed in a graph form. In Figures 1, 2, 3, and 4 P stands for the prices level and Y represents output, whereas Yn is the full-employment level of output. The LRAS is the long-term aggregate supply. The LRAS schedule might be seen as the normal level of output being a function of labor, capital, and natural resources and total factor productivity. If any of these factors increase it will shift the LRAS schedule to the right.

The SRAS stands for short-run aggregate supply. It reflects a standard assumption, that in the short-run, ceteris paribus, prices are fixed and firms, within their capacity are able to produce and offer as much as their customers demand. The aggregate demand (AD) shows relationships between output demanded by agents, ceteris paribus and the price level. Any negative event or change for worse in customers' expectations will shift the AD to the left.

Figure 1 shows the initial simultaneous equilibrium between the long-term and short-term output and the aggregate demand. The equilibrium price level (P<sub>0</sub>) and the natural level of output (Yn) signal also that there is no new information that would change economic agents' expectations. Figure 2 presents the reaction of the model economy to a negative shock stemming from Covid-19. The growing

<sup>&</sup>lt;sup>5</sup> This is a paraphrase of "we are all monetarist now" that reflected popularity of Milton Friedman's monetarist revolution that took minds of many macroeconomists in the 1970s. The phrase became broadly used thank to D. Laidler's article *Monetarism: and interpretation and an assessment*, 1981.

<sup>&</sup>lt;sup>6</sup> There are other models that can be used to study economic policy options and challenges. A good example is Robert Mundell's concept of *effective market classification* (Kowalski, 2013, p. 53–55).





Figure 1. The SRAS/LRAS/AD model

Figure 2. The first run reaction of the model economy to the Covid-19 shock



Figure 3. A perfectly fine-tuned stabilisation policy



Source: Own elaboration based on standard macroeconomic literature.

number of cases and the lockdown imposed in order to stop the disease reduced mobility of people and shrank consumer demand. Soon apart of the demand for staples and other goods migrated to the Internet and direct home delivery but the reduction of consumer demand was sizable. The pandemic, due to the health considerations and preventive anti-Covid-19 measures, contributed to a slower pace of manufacturing as well. As Figure 2 shows the shift of AD to the left that moved the economy out of the simultaneous triple equilibrium.

The reduced demand meant that the current output was lower (Y') than the natural level. If the economy is left without the anti-shock economic policy measures it would go through painful price and cost adjustments of an unknown time lag to return to its original equilibrium. The prolonged functioning below the Yn level would also mean higher than natural unemployment rate.

Figure 3 presents a perfect economic policy scenario. It implies that the timing, structure and the size of fiscal stabilization policy measures and the accommodative monetary policy counter-balanced the Covid-19 blow. To realize how difficult it is to achieve such an economic policy design and implementation, if indeed this is possible, it is necessary to consider at least how fragile agents' expectations can be, the uncertainty accompanying pandemic and the scale of international interdependence.

Figure 4 outlines a scenario in which the combined fiscal and monetary policy measures were oversized or unnecessary reached sectors that did not require such a scale of a state help (Wolf, 2020). These measures can lead to an exceedingly expansionary policy overshooting the original effect and its induced negative shock. In such a scenario the stabilization policy could destabilize not only output but also could lead to an increase of the price level. Studying the first months of stabilization policy actions triggered by the Covid-19 the inflationary outcomes are barely seen.<sup>7</sup>

Due to the immediate pandemic impact on the demand side of the economy the analyses were focused on the short run. What has to be remembered is that such a pandemic inevitably has and will have impact on the size and structure of private investments. The scale of current public expenditures aimed at emergency help led to an unprecedented increase in public debt thus reducing the scope of public investments in the future. Both these trends will have an impact on the growth rate of Yn.

<sup>&</sup>lt;sup>7</sup> The only exceptions so far are two countries: Hungary and Poland (see section 1.6).

# 1.5. Economic policy counter-shock measures

This chapter focuses on the analyses of fiscal policy.<sup>8</sup> In the first stage of the reactive fiscal strategies countries concentrated their attention on maintaining household income – the key element determining consumption expenditure (see Section 1.3). In most cases some forms of cash transfers prevailed (Table 3). Additionally, broader coverage and an extended duration of unemployment benefits were considered. In the case of small businesses, in particular in the service sector, temporary deferrals of taxes and social security payments were introduced.

# Table 3. Summary of selected country fiscal measures in response to the Covid-19 pandemic (per cent of GDP). Estimates as of September 11, 2020

	Ab	ove the li	ine meası	ires	Liquidity support						
	Addit or for	ional spe egone re	nding venue	erred		equity cchase	Contingent liabilities				
Country	Subtotal	Health sector	Non-health sector	Accelerated spending/def	Subtotal	Below the line measures: ( injections. loans. asset pur or debt assumptions	Guaranties	Quasi-fiscal operations			
France	5.2	0.6	4.6	2.5	15.7	0.9	14.8	_			
Germany	8.3	0.7	7.7	_	30.8	6.0	24.8	_			
Hungary	4.1	1.2	2.9	_	4.4	_	_	_			
Italy	4.9	0.4	4.5	0.4	33.0	0.2	32.8				
Japan	11.3	1.0	10.3	4.9	23.7	-	3.0	20.7			
Poland	6.7	0.4	6.3	_	5.0	1.8	3.3	_			
Spain	3.8	0.5	3.0	_	14.2	0.1	13.2	0.9			
The US	11.8	1.5	10.3	0.1	2.5	0.3	2.2	-			

Note: Estimates as of September 11, 2020. Numbers in US dollars and per cent of GDP are based on October 2020 World Economic Outlook unless otherwise stated. Source: Own compilation based on (Fiscal Monitor, 2020).

<sup>&</sup>lt;sup>8</sup> See in this volume: A. Matysek-Jędrych and K. Mroczek-Dąbrowska, *Central Bank policy toward the Covid-19 pandemic: Seeking patterns among the most powerful central banks*.

These measures aimed at maintaining both the demand and short-run supply sides of the economies. Their general scope and efficacy were a function of the law-making culture and the civil service quality in particular countries. Due to the pandemic threat governments also had to extend their spending on the health sector and needed to launch extensive programs of liquidity support (Table 3).<sup>9</sup>

Data in Table 3 proves that the Covid-19 pandemic, even in its first-round, made the governments envisage substantive anti-crisis additional and accelerated spending and to accept deferred tax revenues. A sizable part of the ongoing fiscal measures took the form of liquidity support. In this case, the actual scale in terms of expenditure will only be known later.

The measures presented in Table 3 were an emergency part of a fiscal policy framework. One of the most direct and most comprehensible summary measures of the stance of fiscal policy is the general government overall balance (GGOB) as a percent of GDP (Table 4). In 2019 – the last year of pre-Covid-19 normality – only Germany had its GGOB in surplus. The projected figures for 2020 are all in deficit. The highest deterioration is forecast for the US, Italy and Spain; 12.4, 11.4 and 11.3 percentage points, respectively (Table 4). The IMF forecasts imply that all countries except Germany will continue their GGOB deficits, but their size is expected to shrink. However consecutive annual general government deficits along with slower GDP growth will lead to higher levels of public debt.

Country	2019	2020*	2021*	2022*
France	-3.0	-10.8	-6.5	-5.3
Germany	1.5	-8.2	-3.2	0.6
Hungary	-2.0	-8.3	-3.9	-2.3
Italy	-1.6	-13.0	-6.2	-3.9
Japan	-3.3	-14.2	-6.4	-3.2
Poland	-0.7	-10.5	-4.3	-3.2
Spain	-2.8	-14.1	-7.5	-5.8
The US	-6.3	-18.7	-8.7	-6.5

Table 4. General government overall balance (% of GDP) 2019-2022

\* International Monetary Fund estimations.

Source: (International Monetary Fund [IMF], 2020).

<sup>&</sup>lt;sup>9</sup> In this respect, especially in countries with a stable approach to the civil service, there was still a well-established institutional memory stemming from the global financial crisis. See Kowalski, 2013, pp. 88–94.

The most straightforward, overall headline measures of fiscal prudence is the general government gross debt as a percent of GDP (GGGD) shown in Tables 5a and 5b. Table 5a presents the actual quarterly data. The quarterly data accurately shows the size and timing of Covid-triggered new levels of public debt. In most countries under consideration the level of debt to GDP ratio was relatively stable, as seen in Table 5a. The highest increase in 2020Q2 was recorded in the US, France, and Spain, by 17.8, 15.5, and 14.1 percentage points, respectively.

Country	2019Q3	2019Q4	2020Q1	2019Q3- 2020Q1*	2020Q2
France	111.8	109.9	113.5	111.7	127.2
Germany	61.0	59.6	61.1	60.6	67.4
Hungary	67.9	66.4	66.3	66.9	71.1
Italy	136.8	134.7	137.6	136.4	149.4
Japan	239.1	237.6	237	237.9	249.2
Poland	62.8	61.9	63.5	62.7	70.1
Spain	103.1	102	104.7	103.3	117.4
The US	135.6	135.7	140.1	137.1	154.9

Table 5a. General government gross debt (% of GDP) - quarterly data

\*Average general government gross debt (% of GDP) in 2019Q3-2020Q1. Source: (World Bank, 2020).

Country	2019	2020*	2021*	2022*
France	98.1	118.7	118.6	120.0
Germany	59.5	73.3	72.2	68.5
Hungary	66.3	77.4	75.9	73.2
Italy	113.8	161.8	158.3	156.6
Japan	238.0	266.2	264.0	263.0
Poland	46.0	60.0	60.2	59.2
Spain	95.5	123.0	121.3	120.4
The US	108.7	131.2	133.6	134.5

Table 5b. General government gross debt (% of GDP) 2019-2022

\*IMF estimations

Source: (World Bank, 2020; Fiscal Monitor, 2020).

The annual data and forecasts in Table 5b signal considerable differences between the countries under study already in 2019 – the last year of pre-Covid-19 normality. In 2019, the highest GGGD level was recorded in Japan (238% of GDP). Italy, the US, France and Spain did have high levels of debt as well. In contrast Poland, Germany and Hungary recorded a lower GGGD. Due to cyclical reasons and discretionary fiscal reactions (see Table 3) the GGGD rocketed in 2020. The highest debt to GDP increase is estimated in Italy (48 percentage points (pp)), and in Japan and Spain, 28.2 and 27.5 pp respectively. The lowest increases have been in Hungary and Poland.<sup>10</sup> In all countries under study the higher debt level is expected in the coming years as well (Table 5b). The public debt will become a significant political and economic challenge. Even without Covid-19, high public expenditure needs to be envisaged to cope with climate-related goals.

### 1.6. Reactions of national economies

Due to space limitations, the empirical analyses of the first reactions of the eight economies to Covid-19 and the counter-crisis policy measures must be limited to only five dimensions. These are inflation, industrial production and the unemployment rate – all expressed by monthly data. The other two dimensions – GDP growth rate and shifts in GDP expenditure structure are analyzed quarterly. The time series (Figure 5, 6, 7, 8 and Table 6) are embedded in the SRAS/LRAS/AD framework discussed in Section 3.

As follows from the model (Figures 2 & 3), the actual inflation pattern in 2020 proved that the expansionary economic policies did not transform into higher consumer price inflation. It is evident in the case of four EMU countries (Figures 5a & 5b). In Hungary and Poland, the inflation dynamic was different (Figure 5c). In earlier years, the Polish government and central bank followed expansionary fiscal and monetary policies that led to a revival of inflation expectations and finally to higher inflation. In a certain sense that was also the case in Hungary. Japanese inflation was not changed by the Covid-19 disruption, whereas in the US its rate sharply declined in reaction to Covid-19-related disturbances (Figure 5d).

Analysing the reaction of industrial production (Figure 6) it needs to be noticed that Japan coped the best with the threat of the pandemic (Figure 6d). This was one of the primary reasons for its relatively smooth reaction of industrial production. Due to the large territory and diversified pattern of the pandemic the US production volatility was also relatively low and followed a different timing

<sup>&</sup>lt;sup>10</sup> In some EU Member States such as Poland and Hungary the scale of actual fiscal expenditure requires attention because even before Covid-related spending, sizable public expenditure was not recorded within the public finance framework.



**Figure 5. Consumer prices. Growth on the same period of the previous year** Source: Own compilation based on (OECD, 2020).

(Figure 6d). In Europe German, Polish and Spanish industrial production dynamics showed a similar pattern (Figure 6a, 6b and 6c) – its volatility was milder than in France, Italy and Hungary. All European economies had their troughs and peaks in industrial dynamics in the same months. After the trough all recorded volatile growth (Figures 6a, 6b and 6c).

Monthly unemployment data is presented in Figures 7a, 7b, 7c and 7d. Three economies – namely Japan, Poland, and Germany – proved Covid-resistant in terms of their unemployment rates (UR). They also continued to have the lowest UR in the sample of the studied countries. France's UR declined in February and March of 2020 to increase to 7.8% in April. In the next two months the UR declined to reach the lowest level of 6.6% in June. Since then, the UR returned to its upward trend reaching the level of 7.9% in September. In Italy the UR was declining to reach its lowest point (7.3%) in April. Since May, it began to increase



**Figure 6. Industrial production. Growth previous period, monthly s.a.** Source: As in Figure 5.

surpassing the levels recorded in January and February. In Spain the lowest UR (13.8%) was in February. Since then, the UR began to climb reaching 16.7 and 16.5% respectively in August and September. The US labor market entered 2020 with for this country a very low UR of 3.6 and 3.5% in January and February respectively (Figure 6d). It increased by a 0.9 percentage point in March and rocketed by 10.3 percentage points to 14.7% in April. This shift reflects the nature of American labor market relations, where labor is treated as an asset which is swiftly adjusted to the current economic situation. The sharp decline in the US UR (to 6.9% in October) proves this American regularity.<sup>11</sup>

Monthly GDP data is not publicly available. Therefore, the GDP time series for the studied economies are quarterly and for the sake of better comparisons a longer time is analyzed (Figures 8a, 8b, 8c and 8d). GDP covers not only industrial production but also the service sector (including tourism and leisure), construction, agriculture and forestry and net exports. Therefore, it presents a broader picture of

<sup>&</sup>lt;sup>11</sup> Kowalski & Shachmurove, 2014.



**Figure 7. Monthly unemployment rate** Source: As in Figure 5.

the overall economic dynamics. In normal times, as in 2019, due to the specifics of quarterly data and the GDP structure its dynamics are smoothed (Figures 8a, 8b, 8c and 8d). It is interesting to note that Germany already in 2019Q2 and 2019Q4 recorded declining growth rates (Figure 7a). The first two quarters of 2020 saw negative growth rates with the 2020Q2 record slump of 11.25%. The third quarter in Germany was better (but still minus 4.23%). All countries recorded the most profound GDP drop in 2020Q2 and all, despite improvement in 2020Q3, retained negative GDP dynamics. In the first three quarters of 2020 the most significant growth volatility was noted in Spain, Italy, France and Hungary. The USA, Japan, Poland, and Germany had relatively more stable GDP dynamics. Data on GDP expenditure structure is presented in Table 6.



**Figure 8. GDP. Quarterly, growth rate same period previous year, s.a.** Source: As in Figure 5.

The data sheds light on shifts in the GDP structure caused by different channels of the Covid-triggered negative shock and the relative role of government expenditure (G). Table 6 indicates how stable is GDP expenditure in the short term. It also presents the richness of structural differences even amongst developed economies. This feature is best seen when comparing the share of consumption expenditure (C) in GDP. For example, in 2019Q2 the difference between the US (68%) and Germany (52.6%) was over 15.4 percentage points (Table 5). This single feature shows reasons behind the varied vulnerabilities of particular economies to the negative shock that hit the consumption expenditure. It also explains why governments focused their anti-crisis measures on maintaining household expenditure. The best way to assess the scale of GDP structural change triggered by the implications of Covid-19 is to compare the data on C and G for 2019Q2 and 2020Q2. In all countries (except Hungary) the share of consumption declined. The most profound drop took place in Spain (2.8pp), Poland (2.3pp) and Germany (1.5 pp). In the USA and Japan, the share of consumption declined by 0.9pp and in Italy by 0.5pp. The lowest decline took place in France -0.2pp). The share of government

Coun- tries	2019_Q1					2019_Q2				2020_Q1					2020_Q2					
	C*	G	GFCF	INV	NX	С	G	GFCF	INV	NX	С	G	GFCF	INV	NX	С	G	GFCF	INV	NX
France	53.6	23.0	23.3	0.8	-0.7	53.6	23.1	23.6	0.6	-0.9	53.6	24.1	22.7	1.0	-1.4	53.4	26.2	22.1	2.3	-3.9
Germany	52.3	20.2	21.8	-0.2	5.9	52.6	20.3	21.8	0.0	5.3	51.8	21.2	22.0	-0.6	5.5	51.1	24.0	22.4	-1.1	3.9
Hungary	48.8	19.4	27.1	1.6	3.8	48.9	19.5	27.0	1.0	3.5	50.2	19.9	27.4	-0.9	3.4	50.2	23.3	28.9	-0.8	-1.6
Italy	60.1	18.7	18.0	0.3	2.9	60.2	18.7	18.1	0.2	2.8	59.2	19.9	17.6	0.4	3.0	59.7	23.2	16.9	-1.7	1.9
Poland	57.7	17.9	18.7	1.6	4.1	57.6	17.9	18.5	1.5	4.5	57.6	18.1	18.3	1.0	5.0	55.3	20.0	17.7	-0.6	7.6
Spain	57.7	18.8	20.1	1.0	2.4	57.3	18.8	19.8	1.0	3.1	56.5	20.4	20.0	0.9	2.2	54.5	25.0	18.8	0.9	0.8
Japan	55.3	19.8	24.3	0.2	0.4	55.3	19.9	24.3	0.4	0.1	54.8	20.5	24.3	0.1	0.3	54.4	21.9	25.3	0.1	-1.7
The USA	67.6	14.0	20.9	0.4	-2.9	68.0	14.0	20.6	0.4	-3.0	67.5	14.1	20.9	-0.2	-2.3	67.1	15.6	21.6	-1.5	-2.8

Table 6. Shifts of GDP expenditure structure (in %) in 2019Q1 – 2020Q2

\*C – Private Final Consumption Expenditure; G – Government Final Consumption Expenditure; GFCF – Gross Fixed Capital Formation; INV – changes in inventories and net acquisition of valuables; NX – net exports (exports minus imports). In the case of Hungary and Poland, Changes in inventories and net acquisition of valuables were calculated as residuals. Source: Own calculation based on (OECD, 2020).

expenditure in GDP increased in all countries (Table 6). The highest increase in 2020Q2 in comparison to the same time in the previous year was recorded in Spain and Italy and reached 6.2pp and 4.5pp respectively. Substantial increases were seen in Hungary, Germany and France, 3.8pp, 3.7pp and 3.1pp respectively. Poland (2.1pp), Japan (2.0pp) and the US (1.6pp) used this fiscal instrument with less force.

This brief review of the various dimensions of the economies' reaction to the Covid-19 disturbance shows that it had negative impact on all economies. The economies reacted in almost the same time showing how interdependent they are nowadays. The particular pattern of national economies' reactions was a function of their embedded resilience and the quality of economic policy design and implementation.

# 1.7. Conclusions

At the time of writing, Covid-19 is in its fully-fledged phase, so it is too early to predict its comprehensive consequences. In the last eleven years, it is the second negative shock that hits the global economy. The nature of the shock caused by the Global Financial Crisis of 2007–2009 was relatively easier to comprehend. The

concerted actions of major central banks, the exchange of information, and new prudential regulations helped salvage the financial system.

The Covid-19-triggered economic crisis has a truly global range combining grave economic implications with very existential threats to the society. It increases inequality at the national and international level and therefore adds to social and political tensions. Covid-19 should be seen as humankind's laboratory in preparation for the future unavoidable challenges of coping with the consequences of ageing societies, climate change, and mass migration, to name but a few.

The current scale of fiscal and central banks' stimulus once again has made us all *Keynesians*. These concerted actions pushed the state back to the center of economic life, but its bigger role can also engender serious threats. Once again, the general prosperity and fate of whole sectors depend more on politically driven decisions and actions than on creativity and entrepreneurial spirits. Some states, also in Europe, suffer from short-sighted policies and are captured by populists. The wave of nationalism and populism can reduce the chances to solve the unfolding crisis and to prepare for future challenges. All of these future challenges will require solidarity, a long-term perspective, and multilateral cooperation at the global and regional level.

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