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THE POSTCOVID RISE IN INFLATION: COINCIDENCE OR THE RESULT OF MISGUIDED, EXCESSIVELY INTERVENTIONIST AND MONETARIST ECONOMIC POLICIES

Dariusz Prokopowicz

PhD, Institute of Economics and Finance, Faculty of Social and Economics
Cardinal Stefan Wyszyński University in Warsaw,
Street Wóycickiego 1/3, 01-938 Warsaw, Poland
Corresponding author: e-mail: darprokop@poczta.onet.pl
ORCID: https://orcid.org/0000-0001-6383-916X

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Abstract

The economic crisis, which in 2020 was caused by the SARS-CoV-2 (Covid-19) coronavirus pandemic, was mainly a downturn and recession of non-financial sectors of the economy, mainly resulting from the recession of service sectors covered by lockdowns. The previous mainly financial crisis occurred in 2007-2009. These crises had a different character and other anti-crisis interventionist actions were launched as part of monetary policy and/or fiscal, budgetary, social policy, etc. In 2021, the global economy began to recover efficiently from the economic crisis of 2020. On the other hand, in 2021 there was an increase in inflation as a result of excessively interventionist, monetarist anti-economic measures implemented as part of public financial aid offered during the pandemic to commercially operating economic entities. In 2022, the increase in inflation accelerated and there may be another significant slowdown in economic growth caused by economic sanctions imposed on Russia in connection with the war in Ukraine. The aforementioned war caused an increase in fossil fuel prices, energy prices, food prices and became another pro-inflationary factor. Central banks raise interest rates as part of anti-inflationary measures. However, inflation remains elevated. As a result, there were symptoms of a decrease in consumption and production, and enterprises resigned from the implementation of previously planned business ventures and reduced the level of investments. The result may be the emergence of a deep economic downturn in 2023. In connection with the above, the following research questions arise: what were the original sources of inflation growth and what anti-crisis socio-economic policy should be applied by the governments of individual countries to avoid stagflation in 2023?

Keywords: *inflation, economy, macroeconomics, economic policy, state interventionism, sources of inflation, anti-crisis instruments of economic policy, economic growth, Polish economy*

Statement of the problem in general outlook and its connection with important scientific and practical tasks

A century ago, the British economist and founder of the theory of state interventionism John Maynard Keynes said: "I believe that economics is a moral science (...) it deals with introspection and values (...) it deals with motives, expectations and psychological uncertainties." In these words, John Maynard Keynes suggested the high level of relevance of

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economic knowledge and its applicability. The importance of this statement is underlined by the particular role of the concept of Keynsianism[55] as one of the important currents in defining and identifying the possibility of implementing state interventionism consisting mainly in the creation of new jobs in various sectors of the national economy in a situation where the economy is in a deep economic crisis, a decline in demand, a strong recession, a large increase in unemployment, a decline in income, a decline in the standard of living of citizens and the creation of formulas on how these processes should be counteracted.
Many years have passed since John Maynard Keynes uttered these words. Economic systems have changed significantly. Symptoms of another economic crisis have again emerged, which may be a consequence of the inflationary upsurge that has been ongoing almost since the beginning of 2021. The impact of the SARS-CoV-2 (Covid-19) coronavirus pandemic on the economies of many countries was mainly deconstructive. Businesses and companies operating in the travel services sector were among the economic entities that experienced the largest declines in orders, sales revenue and financial problems due to the SARS-CoV-2 (Covid-19) coronavirus pandemic[79]. In macroeconomic terms, the deepest recession of the national economy in 2020 occurred in countries where the tourism sector and related services (hospitality, catering, etc.) constitute a significant part of the overall economy. Many businesses in the tourism sector, hotels, catering, beauty services, etc., lost many customers during wave 1 of the pandemic because people feared infection with the coronavirus and this was also linked to the various restrictions on movement in public places, the order or recommendation to stay at home as a preventive quarantine and the lockdowns imposed on selected sectors of the economy[80]. As a result, many businesses were already experiencing large declines in sales revenues and profits during Q2 2020, reducing employment and/or scaling back their business operations[38]. On the other hand, the pandemic has resulted in a significant acceleration of internetisation[63] and digitalisation of economic processes[45]. As a result, the importance of the security of data transfer on the Internet[44] has increased. Businesses that conducted their economic activities mainly or exclusively via the Internet[51] experienced an acceleration of development. The implementation of new ICT information technologies and Industry 4.0[39] in various aspects of business has increased in importance[22].
In a significant number of economies, an economic recession was already emerging under the 1st wave of the pandemic. The economic impact forecast at the time was considered so severe that the developing pandemic economic crisis was even compared to the Great Depression of the 1930s. The panic sell-off of assets in the capital markets in March and April 2020 became a key factor in forecasting a deep recession of the economy for the whole of 2020. In many capital markets[27], including stock and commodity markets, a high level of uncertainty prevailed among stock market investors about forecasting economic developments. The uncertainty stemmed from the lack of precise tools to estimate changes in the level of financial risks caused by the new impact factor of the SARS-CoV-2 coronavirus. The coronavirus itself was also recognised as a new risk factor with the

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potential to cause a profound economic crisis. Due to the widely differing characterisations developed at the time by various research centres on the issue of the pathogenicity of the SARS-CoV-2 coronavirus, the level of negative impact of the development of the pandemic on the economies of individual countries and the global economy was difficult to estimate precisely. As a result, many macroeconomic analyses assumed the most negative potential economic recession scenarios. In April 2020, numerous media commentaries relating to the economic situation included claims that the economic crisis triggered by the pandemic could be as deep as the Great Depression of the 1930s[87].

Chart 1. Change in inflation (y/y) in percentage terms between 2017 and 2022.

Source: Internet financial portal bankier.pl (based on Central Statistical Office data).

In the situation of a deep economic recession, i.e. a projected significant slowdown in economic growth as early as April 2020, governments in some countries launched interventionist, anti-crisis measures within the framework of business support programmes[29]. An interesting point is that already at that time it was cautioned that the anti-crisis interventionist measures implemented within the framework of monetary and fiscal policy should be carried out in a safe manner, without over-indebtedness in the system of state finances, so that liquidity risks in the system of state finances did not strongly increase and, particularly importantly, it was cautioned already at that time that inflation did not strongly increase. Among other things, a key issue is the choice of the right treasury debt instruments for the specific economic situation of the country, i.e. the type of these financial instruments, the periods of operation, the yields, the markets on which these debt instruments will be offered, as well as the type of projects to be financed through the issuance of these debt securities. On the other hand, when the economic crisis triggered by the SARS-CoV-2 (Covid-19) coronavirus pandemic began, one of the first anti-crisis measures[29] in some countries was a significant reduction in interest rates by central banks[75]. This was a significant anti-crisis instrument assuming that, for entrepreneurs, credit prices play an important role in an investment decision-making situation. One of the economists who warned already during the 1st wave of the pandemic about

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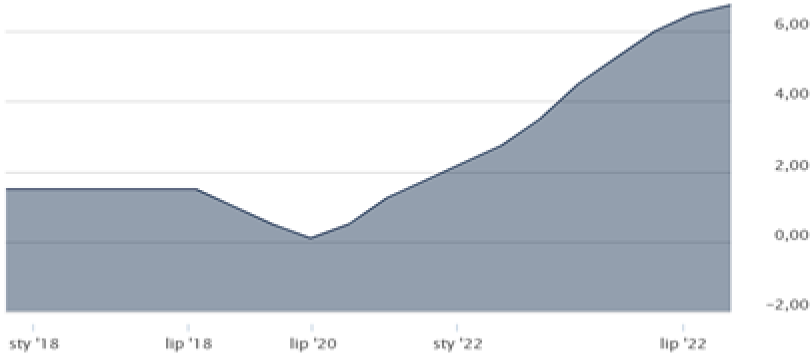
the possibility of rising inflation in a situation of improperly selected and unreliably designed government so-called anti-crisis shields was the author of this article, Dariusz Prokopowicz, who warned about a possible increase in inflation on the discussion forum of the online portal Research Gate. Inflation already started to rise at the beginning of the following year, 2021, and in many countries it continued to rise uninterruptedly until mid-2022, i.e. until the writing of this article. In view of the high growth rate and the complex nature of pro-inflationary factors, it was also not unlikely that the upward trend in inflation would continue in the following months. By mid-2022, inflation had already reached double-digit levels in some countries and had become a significant factor in a potential slowdown in economic growth in the second half of 2022.
There will be new challenges for many companies and businesses operating internationally. In the months and perhaps years ahead, the importance of creating alternative supply and procurement logistics chains will again increase. The scale of so-called international trade wars may also increase. It is also possible that there will be a change of priorities in terms of energy security issues, diversification of energy sources and perhaps also an acceleration of the process of developing renewable energy sources in accordance with the guidelines of the European Union's environmental policy[51]. A particularly negative factor, which may have a deconstructive effect, is the increase in prices of raw materials, prefabricated elements, construction materials, various categories of production factors, which may lead to another wave of deep economic downturn. Due to rising inflation, some central banks[42] in 2021 started to tighten monetary policy[26] and raised interest rates. The effect of these measures was to increase the cost of borrowing money. Rising interest rates on loans on offer from commercial banks[85] could lead to a significant weakening of the improving economy from 2021, i.e. the recovery of economies from the recent SARS-CoV-2 (Covid-19) coronavirus pandemic-induced economic crisis of 2020.

Chart 2. From 8.07.2022, the reference rate of the National Bank of Poland is 6.5 per cent.



Source: Internet financial portal bankier.pl (based on NBP data).

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Analysis of latest research where the solution of the problem was initiated

For the purposes of the analysis, the research problem is first outlined below. From a review of a number of scientific publications and macroeconomic analyses in various media[40], it appears that the economic crisis that was triggered by the SARS-CoV-2 coronavirus pandemic (Covid-19) in 2020 was mainly a downturn and recession of non-financial sectors of the economy, primarily resulting from the recession of the service sectors affected by the lockdowns. These issues were pointed out by Prokopowicz D. and Komorowski P. (2021) in an article entitled "*Impact of the coronavirus pandemic (Covid-19) on financial markets and the economy"*[79]. The last mainly financial global crisis occurred in the period 2007-2009[76]. These crises were partly of a different nature and partly different anti-crisis interventionist measures were triggered by monetary policy and/or fiscal, budgetary, social policies, etc. On the other hand, there is a partial convergence from comparative analyses between the deconstructive nature of these crises and the anti-crisis interventionist measures applied[103]. For example, the quantitative easing applied during the global financial crisis and also in the following years and during the SARS-CoV-2 coronavirus pandemic (Covid-19) and the proposals for reforming monetary policy operations were described in their research articles by Fullwiler S. T. and Wray L. R. (2010)[35]. Streeck W. (2014), after the world has recovered from the global financial crisis and much of its negative economic impact has been mitigated, suggests that economic policies are being conducted on a time-buying basis, which could lead to another delayed crisis of democratic capitalism[91]. However, the global financial crisis of 2007-2009[105] and the economic crisis and recession of the 2020 economy were not the same in many respects. The fundamental difference between the aforementioned crises is not due to the various factors recognised as causal factors such as bad mortgages[37], speculation on worthless securities including subprime bonds[6] sold by investment banks to successive investors (global financial crisis 2007-2009) and the SARS-CoV-2 coronavirus causing Covid-19 disease (economic crisis 2020). The key difference is that the global financial crisis of 2007-2009 was a crisis mainly affecting the commercially operating investment banking sector. In contrast, the 2020 economic crisis was much more complex in nature, was exacerbated by the anti-pandemic restrictions introduced at the national level, extended to many non-financial sectors of the economy and may yet return in a slightly modified form of cyclical downturn through rising inflation. Confirmation of the thesis of a post-pandemic return of the downturn wave is provided by increasingly weak data[31] on the macroeconomic state of the economy. A distinctly weakening economic growth rate in Poland has already appeared since mid-2022. Increasingly lower levels of the PMI and GDP, declining willingness to hire new employees by entrepreneurs, cancellation of previously planned investments, etc. suggest a significant downturn from Q3 2022 onwards. The weakening pace of economic growth in Poland is indicated, inter alia, by data provided by the Central Statistical Office (GUS) on 17.8.2022. According to these data, GDP y/y in 1Q 2022 was 8.5 per cent, but in 2Q. 2022 GDP y/y was significantly less, as 5.3 per cent.

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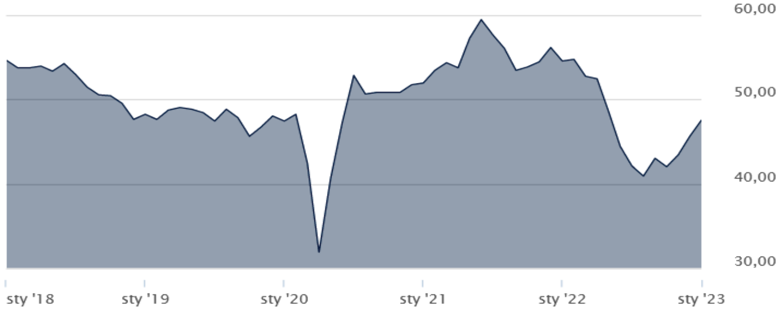
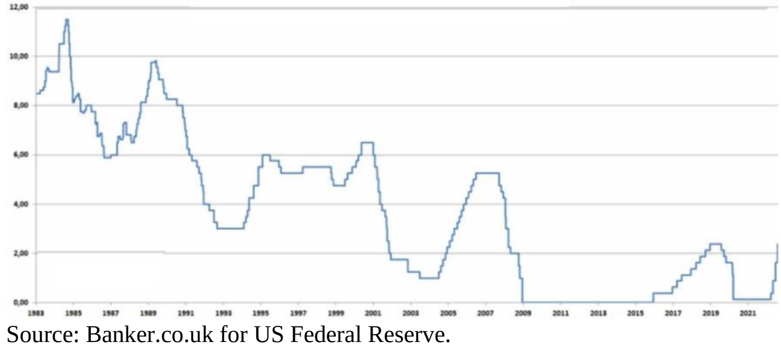
Chart 3. Deterioration signalled by Purchasing Managers' Index Poland. Latest value: 42.10 points (2022).



Source: Internet financial portal bankier.pl (based on Central Statistical Office data).

An additional factor that adds to the magnitude of the aforementioned downturn occurring and developing from mid-2022 is the economic sanctions imposed from March 2022 on Russia in connection with the war in Ukraine. The global economy[104] in 2021 smoothly started to recover from the economic crisis of 2020. However, an increasing amount of macroeconomic data suggests that the period of improving economic 2021 from mid-2022 is coming to an end. The war in Ukraine has become another factor exacerbating the economy's downturn by triggering an energy and food crisis. Before the energy crisis began to unfold in 2022, the impact of rising oil prices on US inflation and inflation expectations in 2020-2023 was described by Lutz K. and Xiaoqing Z. (2021)[61].

Chart 4. Federal funds rate of the Federal Reserve Bank of the USA (in per cent).



Source: Banker.co.uk for US Federal Reserve.

As a result, the growth rate of the global economy is forecast to decline significantly in the following quarters from mid-2022 onwards. Significant factors signalling a downturn include the continuation of rising inflation, the loss of value of the currencies of small developing country economies and rising prices of strategic and energy commodities. Sargent T. J. (1982) already described in the early 1980s the causes and consequences of

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the record high inflation that followed the commodity crisis in Western countries[84]. Also Weintraub S. (1978) at the end of the 1970s, i.e. at the end of the then commodity crisis, described the aforementioned crisis by pointing out the increase in inflation and unemployment in Western countries with economic systems based on capitalism[96]. The researcher pointed out the different determinants of the monetarist and Keynesian concepts applied to economic policy at the time[55]. Many macroeconomic data suggest that a commodity crisis began to unfold in many countries in 2022, an increase in rising from Q1-2. 2021 inflation accelerated, and from mid-2022 there are signs of a downturn in the economy, which will develop in the following quarters and into 2023. Consequently, interventionist programmes of pro-development, anti-crisis socio-economic policies may again be triggered. However, the triggering of the aforementioned interventionist anti-crisis socio-economic policy programmes is currently being made very difficult in many countries due to the significant increase in the debt level of the state's public finance system and the limited possibilities of reapplying both soft fiscal and monetary policies due to rising inflation. Cencini A. (2005) pointed out that both high inflation and deflation are unfavourable phenomena for economic development[16]. Cencini A. and Rossi S. (2016) indicated that high inflation can lead to a downturn and increased unemployment[17]. Inflation would not rise to a significant extent if output grew significantly under interventionist supply stimulation. This issue was previously written about by Moroney J. (2002), who, for his estimation concept of modern quantity theory, carried out analyses of the relationship between the issue of money growth, increases in the scale of production and changes in the level of inflation[67]. The aforementioned economic and financial crises of the 21st century were not completely independent of each other. Many scholars point to the not-fully-improved credit risk management[100] and lending procedures of investment and commercial banks after the global financial crisis of 2007-2009. For example, Streeck W. (2011) immediately after the global financial crisis identified key determinants of potential subsequent crises of democratic capitalism[89]. Besides, before the global recession emerged in 2020 as an offshoot of the SARS-CoV-2 (Covid-19) coronavirus pandemic, international trade wars between the world's largest economies were among the key deconstructive factors in the years leading up to the pandemic. For many years, the expansion of international trade has been recognised as an indisputable factor in economic development[102]. By contrast, the extent of the liberalisation of cross-border capital flows, the growth of transnational corporations and economic globalisation that has been taking place for several decades is a matter of debate[64]. During the period of deepening economic liberalism, deregulation of financial markets and the prosperity of the global economy in the 1990s. Edwards S. emphasised the importance and impact of specific trade policies on economic growth and income distribution[32].

The expansion of international trade, the increased liberalisation of cross-border capital flows and the scale of economic globalisation have been constrained for many years by the aforementioned international trade wars. According to Harold J. (2010), the global financial crisis of 2007-2009 was also a limiting factor for economic globalisation processes[47]. This was followed by the economic crisis indirectly triggered by the SARS-

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CoV-2 (Covid-19) coronavirus pandemic in 2020 and the disrupted chains of international supply logistics and sourcing of production processes for certain essential components and prefabricated products. Thalassinos E. (2007) described the regionalisation of trade, exchange rate policy and EU-US economic cooperation at the onset of the global financial crisis[93]. The pandemic increased the magnitude of the problems in terms of international trade development due to the intermittent chains of international supply logistics and sourcing of products or components and prefabricated components necessary for production processes. Subsequently, the war in Ukraine since March 2022 through the economic sanctions imposed on Russia also further limits the scale of international trade and economic globalisation[74].
The next anti-crisis, interventionist economic policy measures[9], which will be implemented from mid-2022 onwards, will be directed, on the one hand, at limiting the scale of inflationary growth and at activating entrepreneurship in order to limit the scale of unemployment growth and prevent the emergence of stagflation in 2023. In the past, there have already been commodity crises that caused inflation and unemployment to rise. These were the commodity crises of the 1970s. For example, Stiglitz J. (1974) at the beginning of the commodity crisis described the labour turnover model and alternative theories of wage determination and unemployment in Western countries[90].
However, not every decade has seen global economic and/or financial crises. Not every economic crisis has seen high inflation. Also, political economy has not only developed during periods of interventionist intensification of state influence in economic processes. Kirshner J. (2001) formulated his theory of political economy[56] after a decade of economic prosperity, low debt levels in the state finance system and during a period of low inflation. Taking into account what happened in the following decades of the 21st century, the crises that occurred (financial, health-pandemic, pandemic-economic, raw material, food, climate crises) and the anti-crisis interventionist measures applied on a historically unprecedented scale[29], the largest financial state aid measures mobilised in the world's economic history, the use of the media by governments to propagandise the argumentation of the measures applied to citizens resulted in an increase in the importance of political economy.
The issue of post-pandemic inflationary growth described in this paper has been addressed in numerous discussions and debates in various media[40] in recent years, as well as in scientific publications authored by researchers operating in different scientific communities and originating from different countries. As a result, the issues being scientifically studied are gaining a global character. The increased interest of scientists in the issue of post-pandemic inflation growth is due to its topicality and high level of relevance in the context of the macroeconomic description of the state of the economy. From the verification of the opinions, considerations, conclusions and research theses contained in the cited publications, the main research aspects and picture of the problematic of post-pandemic inflation growth were first formulated, taking into account the interventionist mild fiscal and monetary policy applied during the pandemic[4]. The formulated main research aspects and the picture of the analysed topic served as a basis for defining the research

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objectives and methods used in this study. The research objectives and methods are presented in the next subsection of this article. The basis for these main components of the research process carried out in this study was the determination of a synthetic picture of the problematic of postcovid inflation growth after the collection of analytical data and verification of the conclusions contained in the cited publications. What follows is a synthetic picture of the problematic of postcovid inflation growth as a result of the interventionist, anti-crisis socio-economic policies applied during the pandemic, consisting mainly of mild fiscal and monetary policies.The first anti-crisis interventionist measure already applied during wave 1 of the pandemic was a significant easing of monetary policy by central banks[42]. During the panic of investors operating in the capital markets triggered in March 2020, central banks cut interest rates in order to increase liquidity in the banking sector, revive lending[49] by commercial banks and limit the scale of the economic downturn. Such interventionist measures were also implemented by the European Central Bank at the time[71]. The aforementioned response of central banks was to limit the scale of the projected deep recession of the economy. In contrast, the aforementioned panic sell-off of assets on capital markets, including commodity and stock exchanges, occurred when the World Health Organisation declared a pandemic state of the SARS-CoV-2 coronavirus (Covid-19) at a time when research on the coronavirus was only just beginning and the potential economic impact of the developing health crisis was unknown. The European Central Bank[65] like several other central banks during wave 1 of the pandemic applied an easing monetary policy, which was described in its publications as a kind of response to the coronavirus pandemic[71]. This type of action by central banks was the first interventionist anti-decessionist action to be applied at the onset of the coronavirus pandemic in order to limit the scale of panic selling of assets in capital markets characterised by high levels of speculation and amplitude of changes in investor behaviour. These capital markets include commodity exchanges and stock exchanges. In the context of the role of central banking and the applied benign monetary policy within the framework of government-led interventionist, anti-debt measures implemented using fiscal policy instruments, there have been debates for many years about the legitimacy of the independence of central banks from the policies pursued by government ministries. These issues were pointed out by Dolmas J., Huffman W. G. and Wynne M. A. (2000) as early as the turn of the 20th/XXI century. The aforementioned consideration of the independence of central banking from government fiscal policy was realised by the aforementioned researchers in the context of pursuing an anti-inflationary tightened monetary policy[28]. Today, consideration of this issue has become topical again. In addition to this, the analysis of the issue of central banking independence should also take into account the range of central bank monetary policy-making instruments available, as there are significant differences in international comparisons on this issue. For example, not all central banks allow the possibility of direct purchase of treasury bonds in order to inject additional uncovered money into the economy in the situation of an unbalanced state budget and increased budget deficit and public debt in the state's public finance system. This is precisely the case in Poland, where the National Bank of Poland

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has been carrying out this procedure on a large scale since the application of interventionist, anti-crisis measures to limit the scale of the economy's recession during the SARS-CoV-2 (Covid-19) coronavirus pandemic. Within the framework of the so-called Inflation Shields and Financial Shields applied at the time, non-refundable subsidies were provided to companies and enterprises from funds originating mainly from the then first time applied on such a large scale procedure of generating and injecting additional uncovered money into the economy on the basis of direct purchase of newly issued and rolled over treasury bonds by the central bank. In view of the above, in the context of considerations of the independence of central banking, the range of possible instruments that the central bank can and does apply within the framework of the implemented monetary policy and the implemented money supply is a particularly important issue. Reflections on this topic were already undertaken by researchers and academics during previous economic and financial crises. Wray L. R. (2015) described his conception of modern monetary theory with a particular focus on the macroeconomic treatment of sovereign monetary systems[101].
However, by the time inflation accelerated in 2022 and the first signs of another wave of economic downturn appeared in 2021, many economies had quickly recovered from the recession of the 2020 economy. Today, however, inflation remains in double digits in many countries and most central banks operating in developed and developing countries are successively raising interest rates. In parallel with the tightening monetary policy, different solutions are being applied in individual countries, i.e. tighter or sometimes also more lenient fiscal policies in parallel. The anti-crisis solutions that are applied in individual countries vary widely. As part of the anti-crisis economic policy in some countries, such as Turkey, the central bank cuts interest rates despite rising inflation. This is due to the adoption of different priorities than those adopted in most countries. Well, in a situation where inflation is rising and central banks tighten monetary policy, it follows that an anti-inflationary strategy is adopted as a priority. On the other hand, in a situation where, despite rising and double-digit inflation, the central bank cuts interest rates, it means that the government has prioritised the issue of stimulating economic activity over the issue of changes in the level of inflation. The question of the government's choice of a particular economic policy in a situation of rising inflation and emerging signs of a downturn may be an interesting issue for comparative analyses carried out internationally. One important determinant to be taken into account in this type of comparative analysis is the aforementioned issue of the independence of the central bank's monetary policy from the government's fiscal policy. In many countries, this issue is legally enshrined in the Constitution, but in political realities it often looks somewhat or significantly different. This raises the question of whether, in the framework of anti-crisis measures in which certain fiscal and monetary policy instruments are used simultaneously, full and real independence of central banking is a better solution or whether cooperation between the government in conducting fiscal policy and the central bank governor conducting monetary policy in the framework of coordinated, mutually supporting anti-crisis measures is a better solution. There are probably different solutions to this issue, which are also determined by many

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country-specific factors influencing economic processes and determining the effectiveness of individual public institutions. The consideration of the aforementioned issue of central banking independence, which is carried out in the context of interventionist economic policy and the security of a country's financial system,[75] is one of the key issues in political economy today. An interesting research question: What do we know about the political economy of economic policy reform? - was formulated in their research paper by Haggard S. and Webb S. B. in the early 1990s[46]. Di Muzio T. and Noble L. (2017), on the other hand, described the changes taking place in the political economy paradigm, which they describe as a kind of revolution in the context of the relationship between the state and the economy and the description of processes taking place in macroeconomic terms[25]. In 2021, during the dynamic recovery of the economy from the economic crisis, the pumping of large amounts of additional anti-crisis, printed and/or borrowed money into the economy, the large-scale application of financial public assistance to commercially operating companies and enterprises, inflation began to rise rapidly. Consequently, from 2021 onwards, some central banks began to raise interest rates in order to limit the scale of the rise in inflation. Usually, when central bank interest rate rises started too late, the rate at which the central bank raised interest rates was then increased. In some countries, there were additionally introduced anti-inflationary, interventionist fiscal policy measures consisting of a reduction in VAT on the sale of certain ranges of products and/or services. Such a situation occurred in Poland at the beginning of 2022. The key thesis of this article is based on the assumption that the attempt to fix market failures through specific interventionist measures, i.e. to some extent always by imposing systemic constraints on the operation of the market mechanism, is usually just powdering the problem or sweeping the problem under the carpet in order to make it until the next general election, which is scheduled for autumn 2023. In contrast, a full, multi-faceted solution to the problem does not follow. Often, interventionist and so-called anti-crisis, or rather should we use the term counter-economic and counter-cyclical, measures implemented within the framework of monetary and fiscal policy achieve specific goals and solve certain selected socio-economic problems, while at the same time causing new problems in subsequent years. E.g. by applying during the SARS-CoV-2 coronavirus pandemic (Covid-19) so-called anti-crisis financial subsidies to commercially operating enterprises, the scale of the recession and the increase in unemployment was reduced. An improved form of the anti-crisis measures used during the global financial crisis of 2008-2010 was applied, when unemployment then increased significantly (Prokopowicz D., 2020a)[77]. However, on the other hand, by introducing large amounts of unsupported printed money into the economy, an increase in inflation was induced. The 2020 recession, on the other hand, was mainly the result of imposed lockdowns on selected service sectors of the economy. Thus, from 2020 to the present, we have had a string of various successive socio-economic problems stemming from the mistakes made in the management of pandemic risks and the interventionist actions of the government directly intervening in economic processes. This is my diagnosis on the basis of research on the analysis of the situation in the country in which I operate. Prior to embarking on the research, collecting and compiling research results on various aspects of the issues of postcovid

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inflation growth and the interventionist, anti-crisis socio-economic policy applied during the pandemic, consisting mainly of mild fiscal and monetary policies (Prokopowicz D., Komorowski P., 2021)[79], the author of this paper conducted a literature review on the above-mentioned issues. The definition and specification of the research problem, which was then characterised and analysed in this paper, was preceded by a review of literature publications and available source materials, in which the key post-pandemic inflation growth and the determinants of this growth were already considered. The review of the literature shows that the individual issues of the topic of inflation growth examined against the background of the macroeconomics of a particular national economy, as described in various publications, have been examined only in selected issues, while no attempt has been made before to make a synthetic approach to this issue, i.e. one that would integrally cover various key aspects of post-pandemic inflation growth, the considerations undertaken would have the attribute of interdisciplinarity and the conclusions of the research would also be derived from a fully synthetic approach. It is this type of research approach that has been used in this study. One of the key methodological rationales for the post-pandemic inflation growth issues undertaken in this study was to apply a synthetic research approach in order to achieve an interdisciplinary combination of the various aspects of the determinants of the inflation growth described and studied as economies began to emerge from recession and pandemic economic crisis in 2021. The key conclusions reached in the concluding section are derived from the synthetic research approach applied. On the basis of the content of the studied source materials and expert publications, it was shown that in recent months, the problem of the analysis of the determinants of the growth of inflation is one of the most developing areas both in the context of public debates, discussions in various media[40] and the scientific study of this issue. Prokopowicz D. and Komorowski P. (2021), in their article Impact of the coronavirus pandemic (Covid-19) on financial markets and the economy, pointed out the large impact of the SARS-CoV-2 coronavirus pandemic (Covid-19) on financial markets, including the prosperity of capital markets in 2020, and on various aspects of the functioning of the domestic and international economy[79]. The macroeconomic impact of a pandemic in Europe was also pointed out by Jonung L., Roeger W.[53], Boissay F., Rungcharoenkitkul P (2020)[13]. World Bank analysts on 8 June 2020, i.e. at the end of wave 1 of the coronavirus pandemic, published a report suggesting that the then still developing global economic recession could be the largest since the end of the Second World War[20].

Just before the emergence of the SARS-CoV-2 (Covid-19) coronavirus pandemic, Kristin J. formulated the research question: Has globalisation changed the process of inflation?[57] The question proved to be a perfectly valid one especially in the context of what happened in the following years. During the pandemic, the governments of many countries applied analogous, similar solutions in so-called interventionist anti-deficit measures through the use of selected instruments of monetary and fiscal policy eased on a historically record scale. Earlier, information globalisation had fostered the rapid spread of panic-inducing news on financial markets regarding the World Health Organisation's declaration of a pandemic condition. Capital markets reacted particularly nervously due to

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the high level of uncertainty and the state of emergency created by various international and national institutions.
Then, when dock quarantines and lockdowns were introduced it was only a matter of time, a relatively short time, for a deep recession to emerge. Since many developing countries imitated the pandemic anti-crisis measures implemented in the USA and other rich developed countries, the interventionist programmes of public financial aid offered to commercially operating economic entities in many countries also turned out to be a kind of element of economic globalisation,[64] or, more specifically, a specific formula of the applied interventionist, anti-decession, anti-cyclical economic policy referred to as anti-crisis. In Poland, in order to suggest to citizens that we are thus reducing the scale of the economic crisis and recession of the economy, the aforementioned interventionist measures applied in 2020 were called the so-called 'Anti-Crisis Shield'. However, the government PIS-controlled media failed to inform the citizens that by means of the interventionist anti-pandemic measures, i.e. the introduced lockdowns, the government caused a recession of the economy, and then by means of the applied subsequent interventionist anti-decessionary measures implemented through the aforementioned financial state aid in the following years, i.e. from 2021 onwards, the government caused a strong increase in inflation. When, thanks to the independent media, in 2022 a significant part of the citizens had already perceived the negative effects of the government's anti-downturn and anti-crisis interventionism, it was then that government propaganda led by Prime Minister Mateusz Morawiecki appeared in the government-controlled media suggesting that inflation was not domestic inflation but that it had come to Poland from abroad, that it was global inflation. The economic globalisation factor has thus been used for propaganda purposes in this regard. This type of propaganda is reminiscent of the proverbial propaganda the communist authorities used against citizens during the communist era, when, for example, it was suggested to citizens that the crisis of rising food prices was caused by low crop yields, e.g. low potato yields as a result of potato beetles being dumped on Polish farmland by Western capitalist imperialism led by the USA. Now we have geopolitics twisted 180 degrees and the increased importance of economic globalisation.
Warner J. (2020)[95] already formulated a research question during wave 1 of the SARS-CoV-2 coronavirus pandemic (Covid-19), in which he asked what an interventionist, anti-pandemic economic policy would lead to? Will it lead to a highly depressed economy or high inflation? We now know that the multi-faceted, historically large interventionist, anti-pandemic economic policy applied in some countries, based mainly on the introduction of various anti-covid restrictions, the imposition of lockdowns on selected sectors of the economy and the provision of non-refundable financial subsidies to commercially operating companies and enterprises as public assistance, has led to both a recession of the economy in 2020 and an increase in inflation from 2021 onwards.
The content analysis of source literature publications confirms the results of the research conducted by the author of this article. On the basis of the conducted review of the data contained in the publications of the literature addressing the issue of postcovid inflation

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growth and the applied fiscal instruments of financial public assistance and interventionist, anti-crisis, soft monetary policy, many analogous theses and conclusions with those formulated by the author of this article were found.
Alberola E., Arslan Y., Cheng G. and Moessner R. (2020)[3] characterised applied fiscal policy on the Covid-19 crisis in advanced and emerging market economies. In the context of the issue described in this article, it is particularly relevant that already during wave 1 of the SARS-CoV-2 (Covid-19) coronavirus pandemic, many researchers and academics pointed to a potential increase in inflation as a consequence of the interventionist, anti-crisis financial public assistance programmes applied during the pandemic, provided to economic agents and/or citizens through available fiscal policy instruments. Banerjee R., Mehrotra A. and Zampolli F. (2020) during wave 1 of the pandemic pointed to the risk of rising inflation as a derivative of the interventionist government measures applied during the Covid-19 pandemic[8]. Also already during the 1st wave of the SARS-CoV-2 (Covid-19) coronavirus pandemic, Couppey-Soubeyran J. stated that the introduction of printed money into the economy, referred to as 'Helicopter money', was one of the more commonly used anti-crisis instruments aimed at limiting the scale of the economic depression caused by the Covid-19 health crisis[19]. In order for this procedure to be feasible in Poland, the current PIS government has no plans to bring Poland into the Eurozone[58]. When the first signs of rising inflation appeared in March 2021 then Berenta E. (2021) suggested that inflation would soon become a domino effect of the COVID 19 pandemic[10]. In the context of the soft monetary policy applied during the covid downturn of the economy, Gumata N. and Ndou E. (2021) reviewed the role of the money demand function with the aim of answering the question: does the scarcity of money demand affect the response of inflation to exchange rate depreciation shocks?[41].
During wave 1 of the pandemic, Leandro A. and Llorens J. E. (2020) described the impact of the COVID-19 epidemic on inflation in Europe[59]. Märkl A. in an interview with b4schwaben during wave 1 of the 2020 pandemic discussing the coronavirus-induced crisis also suggests an increase in inflation[66]. Pastor L. (2020) already formulated the question during the 1st wave of the pandemic in his publications: will there be inflation after COVID-19? and presented his answer to this question in terms of an intergenerational transfer perspective[72]. In 2021, when inflation began to rise Pinter J. (2021) presented his concept of monetarist arithmetic during the COVID-19 pandemic and formulated an intriguing research question: How not to misapply the quantity theory of money[73].
Also by mid-2020, many independently functioning, i.e. non-political economists were already pointing out that the lockstep measures being introduced and imposed on selected sectors of the economy would trigger an economic recession in 2020 and the historically large-scale financial state aid programmes introduced for commercially operating businesses would cause a large increase in inflation. The aforementioned rise in inflation in many countries has already begun almost from the beginning of 2021. Unfortunately, the governments of many countries pursuing so-called anti-pandemic economic policies ignored these warnings. For example, economists who warned of an increase in inflation due to the launch of large financial support programmes for economic actors in 2020

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include Heise M., who suggested in mid-2020 in his publications that inflation would come after the coronacrisis[48]. The rise in inflation was already foreseeable during the first wave of the SARS-CoV-2 coronavirus pandemic (Covid-19). It would be ludicrous to claim as early as April 2020 that there would not be a large increase in inflation when the governments of some developed and developing countries, with money borrowed, derived from the sale of government bonds and/or printed by the central bank[42], have provided non-refundable subsidies to many commercially active economic entities that, due to the imposed lockdowns, were not really doing business. On the other hand, the above-mentioned economic entities, in spite of the suspended or significantly reduced scale of their economic activity, were forced to maintain employment precisely through the interventionist instrument of the above-mentioned governmental, financial state aid. In some countries, such as Poland, the aforementioned governmental, financial state aid was used by the majority of companies and enterprises operating in the country. In addition, it was not only the economic entities which were subject to lockdowns that benefited from this state aid. For example, manufacturing and development companies, entities operating in the construction sector, which were not subject to lockdowns, could benefit from the said public financial aid. The only condition for receiving this governmental, financial public assistance was to maintain employment. The said subsidies were granted so willingly and on the basis of simplified procedures that this led to a situation of much embezzlement of public money. Marchiori L. in October 2021 presented his concept of inverse monetary theory, in which he analyses the correlation occurring between the issuance of virtual currencies and the increase in inflation, which he defines as a kind of inflation tax automatically borne by citizens[62]. Alari A. and Kolari J. W. (2017) described the impact of monetary policy-driven central banking interest rates on inflation[1]. Some of the issues analysed in this article are still developmental in nature and/or have not yet been fully clarified. For example, the question of the legitimacy of the anti-covid restrictions introduced, the importance of which as factors slowing down the development of coronavirus infections was relatively minor in relation to the damage the government thus caused to the national economy, thus generating a deep recession already during wave 1 of the pandemic. An analysis of the content of source literature addressing the issue of improving anti-pandemic safety instruments and pandemic risk management shows that it was highly debatable to introduce nationwide lockdowns and/or so-called national quarantines instead of improving the smartphone-accessible anti-pandemic information system and creating an efficient citizen health safety system with regionalisation based on municipalities and/or individual workplaces. The issue of the aforementioned debatability is confirmed by the results of studies conducted in the field of virological characterisation of the scale of coronavirus infectivity and pathogenicity. In mid-2020, the National Health Commission of the People's Republic of China published the results of its monitoring of the epidemiological situation, which showed that the first wave of the SARS-CoV-2 (Covid-19) coronavirus pandemic had already developed at a much slower rate compared with the earlier SARS epidemic. This is therefore one of the reports indicating that the introduction of so-called lockdowns imposed on selected sectors of the economy in some countries was highly controversial[24].

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One of the negative effects of rising inflation in modern mixed economies, i.e. social market economies with particularly developed state interventionism in economic processes, is an increase in the scale of income stratification of citizens. In such situations of elevated inflation, which occurred in previous decades, it often happened that citizens with high incomes multiplied them on capital markets, while citizens with the lowest incomes became poorer and the scale of poverty increased. Paradoxically, such processes happen in social market economies with developed public sectors, extensive social policy systems and democratic systems of power. These issues have been pointed out in the past by many researchers and scholars in previous years. Cardoso E. (1992) already pointed out the impact of inflation on poverty in the early 1990s[15]. Beetsma R. M. J. and Ploeg V. D. F. (1996) describing the issues of political economy, inflation, taxes and public debt in the mid-1990s formulated the following research question: Does inequality cause inflation?[11]. In contrast, in the late 1990s. Al-Marhubi F. A. (1997) pointed out the link between income inequality and inflation[5]. Bulír A. (2001) at the beginning of the current century published an article in which he wrote that inflation is one of the determinants shaping income inequality[14]. At the same time, Galli R. and Hoeven R. answered the following research question in their article: Is inflation bad for income inequality? (Is inflation Bad for Income Inequality?)[36]. Desai R., Olofsgard A. and Yousef T. (2003) analysed the correlations between inflation and income inequality in society in economies operating under democratic political systems[23]. Cysne R. P., Maldonado W. L. and Monteiro P. K. (2005) also pointed to the possibility of increasing income inequality in society caused by rising inflation[21]. Also Albanesi S. (2007) pointed out the correlations occurring between inflation and income inequality of citizens[2]. On the other hand, the issue of citizens' income inequality can also be influenced by specific monetary policies[94], which are carried out taking into account possible anti-inflationary and/or anti-deflationary measures. For example, Romer D. C. and Romer H. D. (1998) pointed to correlations occurring between monetary policy and the level of material circumstances of low-income citizens[83]. On the other hand, an analysis of the relationship between inequality and economic growth at the turn of the 20th and 21st centuries was made by Forbes K. J.[33] Wereda W. and Prokopowicz D. (2017a)[97] characterised the ability to generate financial savings by households in Poland, conducted an analysis of the economic and financial situation of households in Poland (2017c)[99] and described the current and prospective goals of pro-family social policy based on the "Family 500 plus" programme (2017b)[98]. The aforementioned 'Family 500 plus' programme failed to achieve the key strategic goal of significantly increasing fertility rates and halting the rapidly growing ageing of the population. Consequently, the main positive, social aspect of the operation of this social assistance programme turned out to be the reduction of the scale of income stratification of citizens and the reduction of the sphere of poverty in Poland. Thanks to this programme, citizens with low incomes do not return to poverty despite double-digit inflation. On the other hand, Bieńkowski W. and Radło M. (2010) moderated deliberations in their book aimed at formulating an answer to the following research question: Economic growth or social security?[12]. It is interesting to note that this question was formulated immediately after the onset of the global financial crisis

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2007-2009. An increase in the scale of income inequality among citizens is one of the most serious social costs of increased inflation. Since, of the 15.5 per cent inflation shown by the Central Statistical Office in mid-2022, independent economists estimate only max. 6-7 per cent of core inflation caused by external factors, more than half of the level of inflation is due to the interventionist measures taken by the government in Poland during the SARS-CoV-2 (Covid-19) coronavirus pandemic, which involved the use of historically large-scale, non-refundable public financial aid granted to commercially operating businesses. The estimated core inflation level of 6-7 per cent in Poland is close to the average inflation level in the euro area. On the other hand, the CPI consumer inflation level of 15.5 per cent shown by the Central Statistical Office is an average increase in the prices of various types of products and services purchased by citizens. On the other hand, the prices of many basic food products, which constitute the main part of expenditure in the wallets of the poorest people, increased by much more than 20 per cent or more. PPI producer inflation is still several per cent higher than consumer inflation, which generates a decrease in the scale of investments made by entrepreneurs and is one of the factors of the developing downturn in the economy from mid-2022 and the still high inflationary pressure on consumer inflation. Macroeconomic data provided by the Central Statistical Office and other public institutions, i.e. data generally considered to be objective in addition to the literature on the subject, scientific articles, reports of independent experts, were one of the important sources of information used for the research conducted by the author of this article.However, it should be added that published macroeconomic data are not always fully compiled and it is not certain that they present an objective picture of the situation of the domestic economy. Core inflation does not include the most price-volatile components of the purchasing basket, i.e. energy and food. CPI inflation, referred to as consumer inflation, somewhat more objectively determines the average level of changes in the prices of the products and services most frequently purchased by citizens, but it too has its drawbacks. Years ago, in order to calculate CPI inflation, it was the CSO that used the same basket of products and services considered to be the most frequently and commonly purchased by citizens. Nowadays, government-controlled think tanks, i.e. the CSO, can modify practically at will the composition of the shopping basket used to calculate changes in the average price level. In addition, the composition of the shopping basket does not have to change by type taking into account individual types of products and services. It is possible, for example, to use cheaper, lower quality but the same generic products when calculating inflation in the next period. Then the calculated level of inflation and published by the CSO may be significantly lower than the real level. According to the CSO, PLN 100 in August 2019 was worth PLN 77.5 in August 2022, as it had lost 23 per cent of its value over the aforementioned three years.

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Table 1. CPI consumer inflation and loss of purchasing power according to CSO data for the period: August 2019 - August 2022.

Lp.	Czas	Inflacja CPI	Wartość
1	August 2019	Punkt zerowy	100 zł
2	August 2020	2,9 %	97,10 zł
3	August 2021	5,5 %	91,70 zł
4	August 2022	15,5 %	77,50 zł

Source: Internet financial portal bankier.pl (based on Central Statistical Office data).

According to the calculations of the independent economist who runs the Youtube channel 'For Money', Pawel Swinarski, 100 zlotys from August 2019 in August 2022 is worth much less than it is reported by the Central Statistical Office (CSO), it is already worth only about 70 zlotys, which means a loss of purchasing power of money in the aforementioned three-year period by 30 per cent. Of course, the majority of citizens did not feel such a large loss of purchasing power of money, because salaries also increased during this period. In recent months, it has increasingly been employees expecting wages to rise that have forced the emergence of an inflationary spiral, also known as a price-wage spiral in the economy. The spiral in question is a phenomenon involving self-acting processes of price and wage adjustments to reduce the scale of the loss of the real value of income or to completely offset the potential loss of purchasing power of money received in wages. On the other hand, the most affected citizens in a situation of loss of purchasing power of money estimated at 30 per cent are depositors, who during this 3-year period kept their savings in bank deposits bearing an average interest of 3-5 per cent for the aforementioned cumulative period and the most attractive bank deposit offers offered by commercial banks at that time. The interest rates on these deposits only started to rise significantly from July 2022, when Treasury bonds bearing interest at the level of the NBP's reference interest rate, i.e. at 6.5 per cent, and 4-year Treasury bonds available for sale for more than 2 years and indexed from the 2nd year of their functioning on the bondholder's account with the level of inflation were 'publicised'. This kind of effective informal advertising of these inflation-indexed treasury bonds turned out to be a media scandal involving the purchase of these bonds by Prime Minister Mateusz Morawiecki in 2021, i.e. in a situation when the NBP was just planning to start raising interest rates and NBP President Prof. Adam Glapiński was reassuring the public at press conferences, saying that inflation in Poland was too low and the central bank had no plans to start raising interest rates in the coming months. As a result, a significant proportion of citizens, instead of adopting prudent financial management strategies and, for example, investing their savings in inflation-indexed Treasury bonds, have taken out mortgages or business loans bearing a variable interest rate and thus, believing the words of the President of the NBP, are currently already paying loan instalments up to twice as high as in mid-2021. However, the inflationary price-payment spiral will not work indefinitely and will not neutralise the loss of purchasing power of money to its full extent. When the aforementioned spiral ceases to operate at its full scale it will mark the beginning of a process of economic

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deterioration. The issue of the potentially pro-inflationary role of large-scale mortgages and economic loans in a situation of low interest rates has been the subject of research and scientific consideration much earlier, during previous economic crises, which were also characterised by a large increase in inflation. For example, Lipietz A. at the beginning of the 1980s, i.e. during the financial crisis of the Western countries, suggested in his publications that credit money was the enabling condition for an inflationary crisis[60]. This was the same crisis that led to the debt crisis of the 1980s described by Kaminsky L. and Pereira A. for the 1990s[54]. The issue of income inequality of citizens in society, rapidly rising inflation, imbalances and mismatches between the demand and supply side of labour markets, low levels of financial reserves in the banking system[70], high levels of debt in the system of state finances, overproduction, etc., are different situations of imbalance in the context of specific processes analysed on a macroeconomic scale, which can negatively affect the economic development of a country in the long term and economic growth in the short term. These issues, i.e. the correlations occurring between equilibrium in the context of specific macroeconomic processes and economic growth, were pointed out by Siedlecki J. (2000) at the turn of the 20th/XXI century[86]. On the basis of a study of the literature sources listed in the Bibliography, it was shown that researchers of the described issue confirm the high level of relevance of the issue of postcovid inflation growth and the applied during the pandemic interventionist, anti-crisis socio-economic policy[29] consisting mainly of mild fiscal and monetary policies, which is related to the issue of timeliness and development of the described issues of the topic. Apart from this, the authors of the source literature dealing with the issue of postcovid inflation growth unanimously conclude that the anti-covid restrictions and lockdowns applied in 2020 increased the scale of the economy's recession and the non-refundable subsidies provided to commercially operating businesses as part of the financial state aid became a key factor in the increase in inflation. A postcovid increase in inflation in many countries appears almost as early as the beginning of 2021. On the basis of the desk data analysis carried out, it was observed that inflation first rises in 2021 as a result of the aforementioned historically large-scale government interventionist financial public assistance applied during the pandemic, followed by additional pro-inflationary factors originating from the war in Ukraine from March 2022 onwards.

Aims of paper. Methods

Prior to writing this article, a review of the literature addressing the issue of postcovid inflation growth and the interventionist, anti-crisis socio-economic policies applied during the pandemic, consisting mainly of mild fiscal and monetary policies, was conducted. The literature review carried out also preceded the clarification of the key issues of the subject to be analysed, the definition of the objectives of the research undertaken and the formulation of the key research questions and theses. The topic of this paper initially defined conceptually and axiomatically was also clarified after the aforementioned review of publications by other researchers on the issue of post-pandemic inflationary growth and/or analysis of the mild fiscal and monetary policy applied during the pandemic. In

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view of the above, this article analyses, in a synthetic approach, the issue of the determinants of the rise in inflation that occurred when the economies started to recover from the recession and the pandemic economic crisis in 2021 and as an effect of the anti-crisis interventionist socio-economic policies applied during the pandemic, consisting mainly of mild fiscal and monetary policies. The analysis of the source materials shows that the investigated issues of analysing the determinants of post-pandemic inflation growth taking into account the interventionist mild fiscal and monetary policies applied during the pandemic have only been described and considered in selected few aspects in the scientific literature to date. On the other hand, there has been no previous attempt to carry out a study that consists of developing a synthetic account of this issue. A full synthetic treatment would cover in an integrated manner the various key aspects of the determinants of post-pandemic inflation growth, the considerations undertaken would have the attribute of a holistic macroeconomic treatment and the conclusions of the research would also acquire the attribute of a synthetic treatment. The need to apply a holistic macroeconomic approach in the process of analysing determinants and forecasting changes in inflation is indicated by Avdiu K. and Unger S. (2022)[7]. It is this type of research approach that is used in this study. On the other hand, Nelson C. R. and Schwert G. W. (1977) formulated and confirmed the thesis that short-term interest rates can be treated as predictors of inflation and that the real interest rate is constant in the long run[69]. One of the key methodological premises undertaken in this study of postcovid inflation growth issues, was the use of a fully objective description of all the premises, determinants, components of the subject under analysis and factors generating inflation growth. In this way, it was possible to objectively formulate an answer to the question: is the analysed inflation growth a kind of case of the action of some foreign "force majeure" as suggested by the government's political marketing propaganda implemented in the government-controlled meanstream media TVPinfo, or is it the result of erroneously pursued excessively interventionist and monetarist domestic economic policy? The government's media-applied populism[87] in terms of biased and politicised description of the state of the economy has also been used in other countries before. For example, Dornbush R. and Edwards S. (1989) already pointed out in the late 1980s the macroeconomic populism used in media commentaries on the description of the state of the economy using Latin America as an example[30]. Analysing the multi-faceted, broadly defined issue of postcovid inflation growth and the interventionist, anti-crisis socio-economic policy applied during the pandemic, consisting mainly of mild fiscal and monetary policies, the author of the present study verified the theses and conclusions formulated by the authors of the cited publications. The verified theses and conclusions, which at times represented a diverse view but, on the other hand, a basically homogeneous assessment of the key aspects of the topic in terms of their level of relevance and identified correlations, were used to formulate the key research questions and theses for this study. Based on the verification of the theses, conclusions were formulated and are included in the conclusion section. The formulation of these conclusions of the research was guided by the principles of scientific objectivity, impartiality and synthesis of the research approach.

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On the basis of the source materials studied and expert publications, it was noted that, until recently, the scarce literature describing the problem of postcovid inflation growth in the last few quarters has been significantly expanded with new titles. On the publishing market, in the circle of the mentioned subject matter, mainly author's monographs and interpretations of certain normative studies and commentaries on legal regulations have appeared. On the other hand, there are far fewer titles that could assist the work of an independent researcher of socio-economic and monetary policy[81] and help students of economics as an enrichment of the academic literature. However, the biggest gap in the scope of the issues covered by the research concerns the attempt to interpret the whole range of issues in synthetic terms relating to socio-economic policy and monetary policy, which have been shaped in Poland in recent years and are presented in a multifaceted manner. The research undertaken in this article has primarily focused on identifying links and correlations in the issues of postcovid inflation growth and the interventionist, anti-crisis socio-economic policies applied during the pandemic, consisting mainly of mild fiscal and monetary policies. Various research methods were used during the research, which are listed below. Various research methods were used in the study, including: descriptive and comparative method, inductive inference, deductive inference, descriptive-vector method and media observation method[40]. The choice of methods was determined by the type of research material, which described the various aspects of the studied issue of postcovid inflation growth and the interventionist, anti-crisis socio-economic policy applied during the pandemic, consisting mainly of mild fiscal and monetary policies. In order to present the key issues of the topic undertaken, to clarify the particularly important dependencies, links, correlations occurring between the components of the issue of post-pandemic inflation growth and the applied during the pandemic interventionist, anti-crisis socio-economic policy consisting mainly of mild fiscal and monetary policies, a mainly descriptive method was used. The comparative method was mainly applied in the internationally conducted comparisons of selected aspects of the key determinants of inflation growth and the interventionist anti-crisis policies applied during the pandemic, specific economic policies, including the mild fiscal, fiscal, sectoral, social, etc. policies pursued by government ministries and the monetary policies pursued by central banks[75]. Inductive reasoning was used to select unambiguous facts and aspects of the issue of the impact of the SARS-CoV-2 (Covid-19) coronavirus pandemic on economic processes meeting the condition of indisputability in their experimental verification. Deductive inference was commonly used through the rationalistic formulation, selection and ordering of axioms, which did not have to be certainties. However, they had to fulfil the condition of being able to present complex problems in the form of objectively formulated theorems and model approaches to specific macroeconomic issues. The axioms formulated with this method were built and developed in the process of logical linking of facts. The descriptive-vectorial method was applied in the present article by highlighting the relevant factors of the broadly defined issue of post-pandemic inflation growth and the interventionist, anti-crisis socio-economic policy applied during the SARS-CoV-2 (Covid-19) coronavirus pandemic, consisting mainly of mild fiscal and monetary policies

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with an indication of the appropriate direction of their impact. The review of source materials was also carried out using the method of media observation[87], consisting in the observation of selected issues of the studied subject described by publicists specialising in specific areas of economic issues. Therefore, guided by the principle of scientific objectivity, impartiality and syntheticity of the research approach, the following main research thesis was formulated on the basis of the verification of the content of the cited publications for the purposes of this study: the applied anti-covid restrictions and lockdowns in 2020 increased the scale of the recession of the economy and the non-refundable subsidies provided to commercially operating economic entities within the framework of financial state aid became a key factor in the increase of inflation. A postcovid increase in inflation in many countries is already emerging almost from the beginning of 2021. Accordingly, the author of this article has concluded on the basis of his research that the postcovid rise in inflation did not occur by chance, but rather as a result of misguided, excessively interventionist and monetarist national economic policies. Excessively monetarist economic policy is also referred to by the term 'helicopter money' coined by Milton Fredman. It should be added that Milton Friedman used the term 'helicopter Money' to describe a hypothetical situation within the framework of theoretical considerations in which he criticised such excessively interventionist and monetarist economic policies[34]. In contrast, the governments of some countries, including the PIS government in Poland, have applied this theoretical concept in practice and on a record scale. In the context of the aforementioned thesis, the following research question was formulated: Were the decision-makers who decided to apply, already during the first wave of the SARS-CoV-2 coronavirus pandemic (Covid-19), certain interventionist anti-covid restrictions, including lockdowns imposed on selected sectors of the economy, as well as the applied on a record scale financial public aid provided to commercially operating economic entities, unaware of the inevitable negative effects of such actions, which will be, above all, an increase in inflation when the economy emerges from the recession caused mainly by the introduced lockdowns? Well, on the basis of independent and fully objective research, the results of which are presented in this article, it has been concluded that this is very unlikely, since the government in Poland used the assistance of hired teams of advisors, which included, apart from specialists in political marketing, sociologists, medics, virologists, etc., also economists. Besides, already during the 1st wave of the SARS-CoV-2 (Covid-19) coronavirus pandemic, there appeared scientific articles published in various countries, which suggested a highly probable post-Covid significant increase in inflation, which would appear as a result of the interventionist, anti-crisis socio-economic policy applied during the pandemic, consisting mainly of based on public financial aid, non-refundable subsidies, social assistance, etc., mild fiscal policy and a mild increase in the level of inflation. a mild fiscal policy and a significant reduction in interest rates as part of the central banks' soft monetary policy. Also, many economists independently of the government and objectively operating economists have pointed to these issues in their newspaper articles and interviews given to various media. Also the author of this article, Dariusz Prokopowicz, already during the first wave of the SARS-CoV-2 (Covid-19) coronavirus pandemic, in discussions held on the discussion forum of

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the Research Gate portal, pointed to these threats, which could become a serious problem for the effective development of the Polish economy. I invite all researchers and scientists interested in this issue and other key problems of contemporary macroeconomics and socio-economic policy to joint discussions on my profile on the Research Gate portal: https://www.researchgate.net/profile/Dariusz-Prokopowicz.

Exposition of main material of research with complete substantiation of obtained scientific results. Discussion

Anti-crisis, interventionist monetary and fiscal policies applied during the coronavirus pandemic

Interventionist socio-economic policies based, among others, on Keynsianism[55] are pursued in many countries in diverse formulas determined by the specifics of a particular national economy. Keynsianism has been applied in various variants during previous deep economic crises characterised by declines in production, investment, income, consumption, aggregate demand, etc. and rising unemployment. To what extent and in what variant an interventionist, anti-crisis economic policy based, inter alia, on Keynsianism can be applied depends on the sectoral-industrial structure of the economy, the level of investment, the level of credit for investment, the state of state finances, including the level of indebtedness of state finances and whether, within the framework of national monetary policy, the central bank[42] has the possibility of directly buying up state bonds and thus financing new large and small investment projects organised and managed by the state and implemented, inter alia, by state-owned companies. Such a procedure has been used for years in the country in which I operate. However, today the debt level of the state finance system is much higher than it was before the SARS-CoV-2 coronavirus pandemic (Covid-19) and consumer inflation in June 2022 has risen to 14.6 per cent and producer inflation is almost 10 per cent higher. Consequently, the possibilities of applying Keynesian, interventionist, anti-crisis socio-economic policies now face severe limitations. Of course, the stimulation of aggregate supply by the state (e.g. by reducing duties on productive factors, easing excessive regulation, increasing deregulation towards economic activity) can act as an anti-inflationary factor if it leads to an increase in the production of the products most frequently purchased by citizens and the anti-crisis objective of maintaining employment is also achieved. Unfortunately, such legislative changes relating to economic activity and international trade, if introduced now, will take effect with a long delay over the next many months or even quarters, while the problem of rising inflation is a current problem for today but also for months to come. John Maynard Keynes was operating in a somewhat different economic reality to the present one[55]. At that time, the role and importance of central banking monetary policy instruments used as anti-crisis and pro-growth instruments was much less than in recent years. At that time, for example, monetary regimes based on gold parity acted as an important factor for the stability of financial systems and the mitigation of various categories of systemic financial risks. They were also limiting factors for the active, interventionist use of domestic monetary policy in anti-crisis measures, the activation of economic processes, the financing of state-led Keynesian economic ventures the activation of aggregate demand.

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The issue of economic activity activation is particularly relevant during periods of economic downturn, i.e. during periods of economic crises and periodic declines in economic activity, a decline in economic growth rates as part of the implementation of counter-cyclical socio-economic policies. This issue was particularly relevant during the anti-crisis, interventionist socio-economic policy applied during the economic crisis triggered by the SARS-CoV-2 (Covid-19) coronavirus pandemic in 2020[79]. As part of the anti-crisis, interventionist socio-economic policy applied in 2020, entrepreneurship was activated with the aim of limiting the scale of economic growth and halting the development of the recessionary economy. Within the framework of the anti-crisis, interventionist socio-economic policy, selected interventionist instruments of fiscal, budgetary, sectoral, social policy and also monetary policy conducted by central banking were applied at that time. Within the framework of the applied financial public assistance, a large amount of additional anti-crisis money was introduced into the economy. The financial public assistance mainly consisted of wage subsidies for employees within the framework of maintained employment. In addition to this, commercially operating companies and enterprises received financial public assistance in the form of non-refundable targeted subsidies, deferral of contributions to the social security system, reduction of certain taxes, granting of loans on preferential terms, etc. This has significantly reduced the scale of the rise in unemployment in 2020 and reduced the scale of the development of the economic crisis. On the other hand, a negative side-effect is the successive increase in inflation that has occurred almost since the beginning of 2021. However, thanks to the anti-crisis, interventionist socio-economic policy of financial public support applied, it was also possible to significantly reduce the decline in the level of economic activity of companies and enterprises and the level of economic downturn in 2020.

Key domestic and international determinants of inflation growth and potential economic impacts in 2022

Rising inflation in many developed countries had already occurred the year before the outbreak of war in Ukraine. In many countries in 2020, the SARS-CoV-2 (Covid-19) coronavirus pandemic caused a significant slowdown in economic growth and economic downturn. At the very beginning of wave 1 of the pandemic, stock markets and commodity markets experienced stock market crashes. In order to stop the strong downturn in these capital markets, central banks lowered interest rates. Then, as an anti-pandemic measure, the governments of some countries introduced lockdowns imposed on selected, mainly service sectors of the economy. This exacerbated the scale of the economy's downturn and triggered a recession. Then, in April 2020, macroeconomic forecasts being developed suggested the emergence of an annual recession of several per cent. Concerned about rising unemployment, social unrest, possible potential political effects in developed countries with their own currency and a full range of interventionist monetary policy instruments, anti-crisis interventionist measures were applied to the economy. These measures consisted of the introduction of additional, printed money into the economy without any coverage in the products and services produced. The mechanism for introducing additional money into the economy consisted of a direct purchase by the central bank of bonds issued by the Treasury. In the context of the risk of the emergence of a

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high recession in the economy, a significant increase in unemployment, social unrest, etc., it was decided to take this kind of interventionist action, which was applied on a historically record scale. When deciding on this kind of state interventionism, it was already known at the time that a side effect, a kind of 'lesser evil', would be an increase in inflation and an increase in the debt of the state finance system. Such a mechanism of interventionist measures was applied, for example, in the country in which I operate. It was a copy of measures applied in at least some other large developed economies. In the country where I operate, inflation started to rise rapidly as early as February 2021. However, the central bank, i.e. the National Bank of Poland, only started raising interest rates from October 2021. This was a belated action. In addition, the key anti-inflation instrument, i.e. inflation-indexed treasury bonds, which were also on offer from one commercial bank to the public, was deliberately not advertised and promoted in the media at all[43]. Only recently have citizens become aware of this on the basis of a recent media scandal. Earlier in 2021, due to interventionist and record low interest rates, many citizens took out mortgages and today pay up to 2 times the repayment instalments. Inflation continues to rise. In Poland, in May, consumer inflation was 13.9 per cent and producer inflation was 23 per cent. However, the prices of many types of basic products have increased to a much greater extent over the past year, so the real level of inflation may be much higher than what is reported by the Central Statistical Office, which does not publish full and precise information on the basket of products and services taken into the basket of economic goods purchased by citizens to estimate the average level of price changes.

In view of the above, the war in Ukraine caused an acceleration of inflation in many countries, which had already begun to rise much earlier and was triggered by unreflective, short-sighted, interventionist, anti-crisis fiscal policy measures[29] involving the introduction during the SARS-CoV-2 (Covid-19) coronavirus pandemic of additional money into the economy through the application of financial state aid to businesses and companies on a historically large scale. Applied to companies, enterprises and corporations operating in various sectors of the economy, the financial public assistance consisted of subsidies to the salaries of employees working in commercially operating business entities, tax reductions, temporary deferral and/or cancellation of contributions to the social security system, the provision of non-repayable loans and targeted grants to carry out restructuring processes of business entities. The only requirement issued to companies and enterprises receiving public financial aid was the necessity to maintain employment and this even in a situation where the economic entity was not really conducting business due to the introduced lockdowns. In this way, the Polish economy received, according to various estimates, between PLN 140 and 260 billion, which may account for almost half of the annual state budget. The strategic objective of the so-called 'Anti-Crisis Shield' applied during the SARS-CoV-2 (Covid-19) coronavirus pandemic as part of the government's interventionist measures was to maintain key macroeconomic indicators at optimal levels in the context of the global recession and economic downturn that occurred in 2020. One of the most important macroeconomic indicators is the unemployment rate. Thanks to the aforementioned so-called 'Anti-Crisis Shield', it was possible to significantly reduce

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the scale of the increase in unemployment rate indicators. The majority of economic entities in Poland have benefited from public financial assistance. The scale of indebtedness of the state's public finance system increased. The increase in the scale of indebtedness of the state's public finance system was recorded according to official indicators, which, however, do not present the full scale of this increase. In order to estimate the full scale of the increase in the indebtedness of the system of public finances of the state, it is necessary to take into account the established special purpose funds of state institutions, i.e. Bank Gospodarstwa Krajowego and the Polish Development Fund, which were created on the basis of the added PLN money by the central bank. The financial resources of these funds were used to provide non-refundable subsidies and surcharges on the salaries of employees employed in State Treasury companies and many commercially operating economic entities. From the beginning of the application of the aforementioned interventionist fiscal policy measures, it was known that the side effect, the 'lesser evil', would be a large increase in inflation in the following years, which has already occurred since the beginning of 2021. The war in Ukraine triggered an increase in the price of fossil fuels on internationally operating commodity exchanges. However, the increase in the price of refined oil products sold by the monopolistically operating large SOEs in Poland was much higher compared to the increase in the price of crude oil. Consequently, the actions and pricing policies of the SOEs operating in the fuel, refining, fossil fuel extraction and coal combustion in power plants sectors have significantly increased the scale of the impact of the pro-inflationary factor of the war in Ukraine. However, in the meanstream media controlled by the current government in Poland, a propaganda and inconsistent thesis is being created, suggesting that the increase in inflation appeared in Poland solely on the basis of external, foreign, international factors. The anti-inflationary measures applied to date (mid-June 2022) of a successively tightening monetary policy and a still mild fiscal policy are still not effective and fail to stem the rise in inflation in Poland. The mild fiscal policy of applying successive subsidies, allowances, surcharges and other forms of public financial assistance to selected types of economic entities and social groups abolishes the anti-inflationary measures implemented under the monetary policy. In addition, commercial banks, due to their over-liquidity, did not increase bank deposit and deposit rates until May 2022, despite the central bank raising interest rates.

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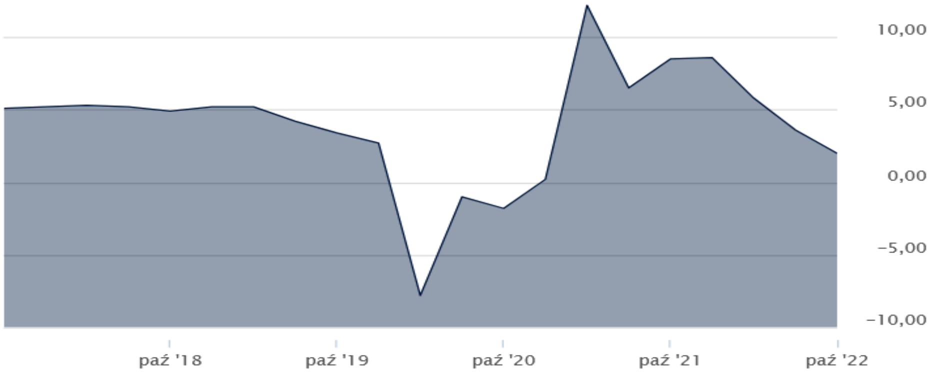
Chart 5. Gross Domestic Product (y/y, per cent) in Poland in the period: Q2 2017 - Q2 2022.



Source: Internet financial portal bankier.pl (based on Central Statistical Office data).

Therefore, the lack of a sound and sensible socio-economic policy will result in a significant downturn in the economy already in the next quarters of the current 2022 and a strong increase in the risk of deflation in 2022. Unfortunately, not much will change in this regard because the next general election is due to take place in autumn 2023. How strong the increase in inflation is due to domestic, internal factors is shown by core inflation calculated without taking into account food products, fossil fuels and oil refining products. Well, according to official data from the Central Statistical Office in Poland, the aforementioned core inflation in May 2022 amounted to 8.5 per cent. Core inflation is also continuing to rise, which means that since the beginning of 2021, the main factors behind the rise in inflation have been internal rather than external.
The National Bank of Poland's forecast of 12 July 2022[82] assumes that consumer inflation in 2022 will be 14.3 per cent, in 2023 it will be at 12.3 per cent, In 2024, it will be at 4.1 per cent. The NBP also reported that inflation in Poland with a 50 per cent probability in 2022 will be in the range of 13.2-15.4 per cent. According to the NBP, the acceleration of the inflation rate in the second quarter of 2022 was keyly influenced by Russia's military aggression in Ukraine.

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Table 2. Inflation projection by the NBP in March and July 2022, assuming a 50 per cent probability.

	2022	2023	2024
PKB (r/r, %)			
VII 2022	4,7	1,4	2,2
III 2022	4,4	3,0	2,7
Inflacja CPI (r/r, %)			
VII 2022	14,2	12,3	4,1
III 2022	10,8	9,0	4,2

Source: NBP data.

The July NBP forecast assumes a core inflation rate of 8.9 per cent in 2022, 7.5 per cent in 2023 and 4.2 per cent in 2024. Core inflation refers to prices, which are influenced by the central bank,[42] unlike, for example, commodity prices, which depend on the situation on global markets. If the operation of the anti-inflationary shield continues until October 2022, the effect will be a reduction in CPI inflation of 3.2 per cent relative to a scenario without the shield. In order to curb price increases, the Monetary Policy Council has been raising interest rates since October 2021. During this time, the reference rate has increased from 0.1 per cent to 6.5 per cent[82]. The strategic goal of halting price increases at the moment (August 2022) has not yet been achieved. The reported halt in inflation growth in the June-August 2022 period is due to the year-on-year trend of seasonal decreases in the prices of certain types of products and services during the summer and the fall in oil prices on commodity exchanges.

Analysis of the determinants of the ineffectiveness of central banking's anti-inflationary measures in Poland

One of the significant crisis factors in many countries today is rapidly rising inflation. In Poland, unfortunately, at least until mid-2022, the anti-inflation policy has been ineffective. The central bank in Poland, i.e. the National Bank of Poland, is a bank that is officially independent of the government's economic policy, but citizens know that realistically and politically these relationships exist. Reflections on the importance of central banking independence have been carried out for many years. For example, Dolmas J., Huffman W. G. and Wynne M. A. (2000) already identified the issue of central bank independence in the context of pursuing anti-inflationary tight monetary policy at the turn of the 20th/XXI century[28]. Consequently, the issue of ineffective anti-inflationary actions of the National Bank are interpreted by citizens as ineffectiveness and unreliability within the framework of the government's broadly defined socio-economic policy. According to the provisions of the Polish Constitution, the National Bank of Poland is a bank independent of the government's fiscal policy. If the Monetary Policy Council, operating at the NBP, which is responsible for shaping monetary policy to a significant extent, is a

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public institution and not a secret organisation, then why, for several years during the term of the PIS government, it has been behaving like an NSA-type institution in the USA, where almost all information functioning inside the institution is not public. Why do the members of the MPC, as experts in central banking, do not speak to the media, do not keep the public informed about the shaping of monetary policy? Only the President of the NBP, Professor Adam Glapiński, has taken on the role of chief media commentator, the person who performs public relations for the NBP in a specific way reports on the findings of the analytical committees and the decisions taken by the MPC. One of the pieces of information that the NBP President gave to the public at a press conference in mid-2022 was the NBP's forecast that NBP interest rates would not return to the NBP's inflation target until 2024 at the earliest. Does this mean that borrowers should hold off on taking out loans until that year? This type of question is legitimate if Poland currently has a 'silent' MPC, as former NBP President Prof. Hanna Gronkiewicz-Waltz put it in an interview on 16.8.2022 on radio TokFm. Returning to the question of the relationship between the NBP's monetary policy and the government's fiscal policy, it is important to highlight the differentiation of objectives in the implementation of these policies. The government introduces new allowances, subsidies, tax cuts, which become further pro-inflationary factors within the framework of a mild fiscal policy. the central bank started to raise interest rates from October 2021. As commercial banks had been raising lending rates rapidly for six months and deposit rates to a small extent, so the central bank's only anti-inflationary measures of successively raising interest rates proved to be completely ineffective anti-inflationary. Despite these measures, inflation continued to rise rapidly from October 2021 to June 2022. Commercial banks are reluctant to raise deposit rates because, with a higher increase in lending rates, the interest margin increases and they earn more. In addition, commercial banks, especially the largest commercial banks, which were state-owned companies during the SARS-CoV-2 (Covid-19) coronavirus pandemic, bought large amounts of government bonds, which the treasury issued on behalf of the government in order to generate additional money, which was then used for the so-called Crisis Shields and Financial Shields applied during the 2020 economic crisis caused by the lockdowns introduced during the pandemic. Based on ongoing research, it is now known that the introduction of lockdowns in 2020, which were imposed on selected sectors of the economy, was highly controversial. In contrast, at present (July 2022), the central bank in Poland has still not launched effective anti-inflationary instruments. It is not a matter of creating new extraordinary solutions, but those that have already been used before. For example, at the turn of the 20th/XXI centuries, the National Bank of Poland issued special bonds, thanks to which it collected a significant part of the money circulating in the economy from circulation for six months. At the time, the aim was to reduce the level of excess liquidity in the economy in connection with the downturn looming on the horizon as a result of the dotcom crisis in the USA in the late 1990s. As a result, at that time the central bank felt that the level of credit for investment projects was high; the level of acceptable economic, investment, credit and other financial risks was too high; commercial banks' lending policies were too lax, the level of consumer purchases credited with instalment loans was too high, etc. in the context of the coming slowdown

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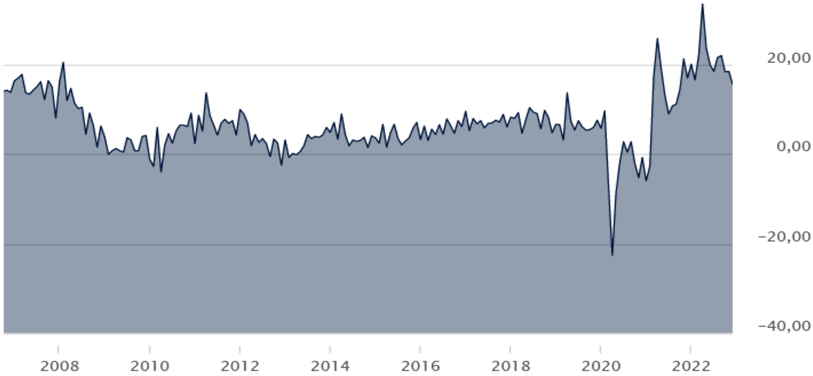
in economic growth, so emergency instruments were used. At the time, the central bank, which normally only serves other banks, offered a special series of bonds to the public as an interventionist and emergency measure. An analogous situation has now emerged. The only fundamental difference is that inflation is rising now and it was falling then.

Chart 6. Change in the level of retail sales (y/y, per cent) in Poland between June 2017 and June 2022.



Source: Internet financial portal bankier.pl (based on Central Statistical Office data).

Consequently, the rationale for applying an analogous solution now is even greater. It is therefore strange why the central bank in Poland has not introduced this most effective anti-inflationary instrument. In the government-controlled meanstream media[87], the government promotes the propaganda and factually inconsistent message that the central bank supposedly acts effectively anti-inflationary. But of course, citizens know that the reality is different. The question that arises now is why the government does not apply effective anti-inflationary measures and continues to contribute to the depreciation of the domestic currency PLN against other internationally key currencies? Also, why does the government continue to implement measures that exacerbate the depreciation of the domestic currency PLN against other currencies? It is known that one important factor is the speculative transactions of the central bank carried out in the international financial markets. At the cost of the depreciation of the domestic PLN currency, the central bank generates profits, which it then transfers to the treasury instead of increasing its reserves and thus instead of increasing the security of the financial system[75]. Besides, the government continuing to pursue a soft fiscal policy reduces the effectiveness of the central bank's monetary policy anti-inflationary measures. In formulating an answer to the above question, independent economists point to the short period of time remaining until the next general election, which is expected to take place as early as autumn 2023. In addition, during the last 10th rate hike, the Monetary Policy Council acting at the National Bank of Poland increased the basic, reference interest rate by 0.5 per cent to 6.5 per cent, while the majority of financial market analysts, on the basis of an analysis of the current operation of inflationary factors, forecast the aforementioned hike in the range of 0.75-1.0 per

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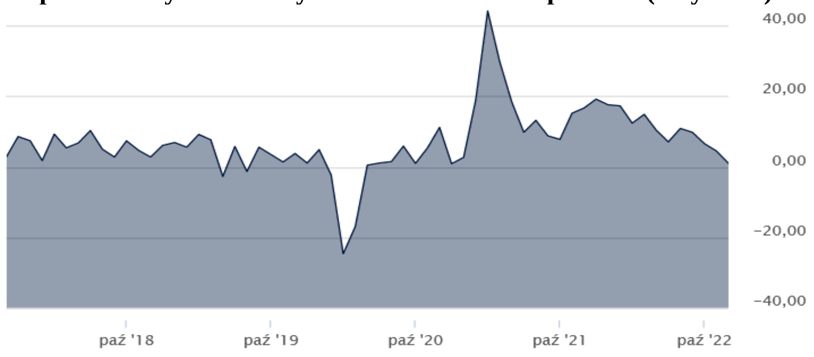
cent. As a result, another factor emerged, namely the outflow of speculative capital from the financial markets in Poland. In addition, there were other factors causing the Euro currency to depreciate against the USD. Since the Polish economy is still considered by internationally operating foreign banks and investment funds as a growing economy rather than a highly developed one, and the PLN is not counted among the key international currencies, this generates an additional depreciation of the PLN against the aforementioned international currencies in the event of a drop in the EUR/USD exchange rate. In Poland, inflation has been on an upward trend continuously for more than a year until mid-2022. Both consumer and producer inflation are rising. In Poland, the increase in producer inflation, including the increase in the price of construction materials, is causing a reduction in the scale of construction and renovation investments in the public sectors. Also, loan interest rates raised by commercial banks are causing investment levels to fall. June-July 2022 has already seen a decline in production levels in some manufactured product ranges. Thus, the first symptoms of the projected incipient economic downturn are emerging. In connection with the interventionist actions of the government (press conferences at which the Prime Minister encouraged commercial banks to increase deposit and deposit rates; new issues of Treasury bonds with a rate of 5-6 per cent), some commercial banks began to increase deposit and deposit rates from June 2022. However, still the oproc. of deposits and bank deposits, which is at 4-6 per cent per annum, is not highly attractive for citizens, as consumer inflation in June 2022 was 15.6 per cent and producer inflation is still above 20 per cent.

Chart 7. Change in the level of industrial production (y/y, per cent) in Poland in the period: July 2017 - July 2022. Last value 7.6 per cent (July 2022).



Source: Internet financial portal bankier.pl (based on Central Statistical Office data).

Therefore, when the central bank, the National Bank of Poland, started to implement monetary policy tightening with a six-month delay and raise interest rates from October 2021, commercial banks immediately started to raise lending rates and deposit and deposit rates were raised symbolically, i.e. to a much lesser extent and at a slower pace.

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Consequently, the central bank's anti-inflationary measures implemented from October 2021 to mid-2022 proved ineffective, as inflation continued to rise during this period. On the other hand, the tightening of monetary policy has resulted in a decrease in the creditworthiness of potential borrowers, a decrease in the amount of bank loans granted, a decrease in the scale of investments lent, and a downturn in the economy. In view of the above, at the moment (end of July 2022), the tightening of monetary policy, instead of having an anti-inflationary effect, unfortunately has a mainly deconstructive effect and may increase the scale of the downturn, which in the economy will appear in the following months and in the next 2023. However, it is possible that the level of importance of the anti-inflationary factor will increase from July this year 2022, which may be the result of a large increase in the interest of citizens in the purchase of Treasury bonds, which from July are offered at a slightly more attractive rate than in previous months. In addition to this, the scandal presented since May Br 2022 in the opposition media involving the purchase of inflation-indexed treasury bonds in 2021 by the Prime Minister without advertising them to citizens has become an important impetus for activating citizens' interest in these bonds. This is confirmed by the sales data for these bonds. These data show that sales of these bonds (4-year inflation-indexed treasury bonds from year 2 onwards) have increased many times since June 2022.
Apparently, the media scandal has become a kind of effective instrument to encourage their purchase. This will enable citizens to finance the government's next measures in the election year 2023. This will provide the government with more opportunities to finance further subsidies and grants for citizens to partially compensate for the strong price increases in many types of products, energy commodity prices and energy prices. Unfortunately, this may result in a continuation of the upward trend in inflation in the following months. Recently, there have already been forecasts by financial analysts suggesting that consumer inflation in Poland may continue to rise even until spring 2023 and may break through the level of 20 per cent. Apparently, the government does not care about lowering the level of inflation, as other goals are considered more important priorities by the government. Besides, the government in Poland benefits in a way from rising inflation, as nominally higher amounts from VAT paid by citizens and businesses flow into the central state budget thanks to rising prices of products and services purchased by citizens. In addition, the cost of servicing the public debt falls. At the same time, for various reasons, the value of the national currency PLN has been gradually depreciating against other currencies for several years. The issue of the aforementioned depreciation of the domestic currency is also related to the monetary policy of the central bank in Poland, i.e. the National Bank of Poland[42].
The aforementioned central bank, by making speculative transactions on international financial markets, generates above-average profits, which it transfers to the state budget in approx. 95 per cent of their portion, instead of increasing reserves and instead of increasing the security of the domestic financial system[92], including the security and reliability of the banking system in Poland[75]. However, the effect of the aforementioned speculative transactions carried out by the central bank of the NBP on the international financial markets is a successive depreciation of the value of the domestic currency PLN. In view

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of the above, a number of data and issues suggest that elevated inflation levels will persist for many more months. Even the analytical team at the central bank of the National Bank of Poland states that inflation in Poland will not begin to fall to a significant degree until 2024. However, probably few citizens recognise such long-term forecasts and those given for the year after the parliamentary elections to be held in autumn 2023 as serious and objective. Given the unreliable information policy of the NBP central bank as it has been conducted since 2020, it is now likely that a relatively small proportion of citizens in society are willing to believe the subsequent forecasts and information given by the central bank governor at press conferences specially organised for this purpose.
In some countries, high-budget anti-crisis socio-economic policy programmes, usually referred to as 'Crisis Shields', have consumed large amounts of money, significantly increasing the level of public debt. In some countries, the level of public debt has risen to the limit of the financial security level of the debt of state finances, i.e. to around 60 per cent of GDP. Therefore, if the projected economic crisis of 2023 causes a significant slowdown in economic growth, then the possibilities of reviving economic processes through state interventionism, widely applied social policy, subsidies for enterprises, maintaining jobs in companies that have reduced production, etc., will already be very limited, and the possibilities of stopping the development of the next wave of economic downturn will already be very limited. Unless the government in Poland decides to ignore the issue of adherence to the financial security standards for state finances set and applied in the European Union[18]. This is an important issue as Poland has been a member of the European Union since 2004[68].
Alternatively, another or additional solution will be another easing of monetary policy, the introduction into the public finance system of further additional uncovered money, all at the expense of increased inflation. Thanks to this, economic growth may still be stimulated to some extent for a few months, but this will already be limited both in the time of interventionist socio-economic policy and in the financial field.
The author of this article, while participating in discussions on the Research Gate portal, also warned already during the first wave of the SARS-CoV-2 coronavirus pandemic (Covid-19) that such a large-scale application of public financial aid, consisting in pumping into the economy estimated at PLN 140 to 260 billion of additional money printed and borrowed on the financial markets, would cause a large increase in inflation, as soon as the state of panic on the financial markets and the state of recession in the economy came to an end.

In the absence of effective anti-inflationary measures, there is a growing risk that a significant slowdown in economic growth will emerge in 2023

The persistence of elevated inflation over many months results in a reduction in consumption by consumers and a decrease in investment, a reduction in the scale of business activity by entrepreneurs. This can result in a significant decrease in the level of economic growth and even cause a recession. Another consequence can be a significant increase in unemployment and thus the occurrence of stagflation. In many countries, during the SARS-CoV-2 (Covid-19) coronavirus pandemic, numerous financial welfare programmes were prepared and non-refundable financial subsidies were also applied, which

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were given to companies and enterprises on the condition that employment was maintained despite the imposed lockdowns. In some countries, as a result of the public assistance programmes applied, the level of indebtedness of the public finance system increased significantly, even despite the use of domestic money printing. In some countries, the debt level of the public finance system has already almost reached the constitutional limits of the prudential ratios. Consequently, if the economic downturn develops in the next quarters, the energy crisis worsens, inflation and unemployment rise and recession appears, the possibilities for interventionist anti-crisis measures by the state are unfortunately already limited. Perhaps there will be more scope for a possible easing of the recently tightened monetary policy. However, in such a situation, another pro-inflationary factor would emerge and inflation could rise rapidly again. In view of the above, it could be an interesting research topic to investigate the correlation between the following economic variables: high inflation, the risk of rising unemployment, a declining economy and the possibility of once again applying interventionist, financial public assistance programmes.

The aim of counteracting the growing risk of the emergence of a significant decline in economic activity and an increase in unemployment is primarily an effective, interventionist anti-inflationary measure to halt the steadily and rapidly currently rising inflation. the central bank raises interest rates. However, commercial banks do not raise deposit rates only raise lending rates. Commercial banks explain this behaviour by high levels of excess liquidity. However, it is obvious that this is a deliberate strategy resulting in record high profits from such lending activities. Bank lending is becoming increasingly unaffordable for more potential borrowers and data are already emerging to confirm earlier forecasts of falling production and investment. The decline in economic activity will generate an increase in unemployment in the next quarters of 2022 and 2023. Public dissatisfaction with the government's economic policy will grow and the possibility of the current dominant PIS party holding the reins of power in the country winning the next parliamentary elections in 2023 is already much lower compared to previous elections. Perhaps this would be a good solution, since the current government has run out of ideas for the economic development of the country apart from the repeated use of money printing, handouts and activation of consumption. Apparently, the current socio-economic policy lacks the development and launch of new, effective, interventionist measures to activate investment in new technologies and research and development. Perhaps the government does not care about this, because the positive effects of this kind of interventionism would have to wait for several or several years and the elections are already a year away. Consequently, consumption rather than investment is being activated. Citizens are being given a fish instead of a fishing rod. This is not a long-term strategy for a pro-development socio-economic policy, it is a short-sighted action aimed only at improving the electoral results in the next parliamentary elections. The government, by easing fiscal policy and introducing more new types of subsidies and public financial aid, is also contributing to the rise in inflation. In the absence of effective anti-inflationary measures, there is a growing risk that a significant slowdown in economic growth will emerge in 2023. However, due to the low level of unemployment, the risk of stagflation is still low in the country.

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Yet nothing is certain. If another 'black swan' emerges, such as the coronavirus pandemic and more recently the war in Ukraine, and causes a continuation of the rise in the price of energy and other raw materials, then a much deeper economic crisis than currently forecast may be possible in 2023.
In view of the above, rather than curbing the rise in inflation, raising interest rates by central banks causes a downturn in the economy. Despite central banks raising interest rates, inflation continues to rise. This is because there is excess liquidity in commercial banks and commercial banks are slow to increase deposit rates. Therefore, instead of stopping inflation from rising, raising interest rates by central banks causes a downturn in the economy. This is due to the rapid raising of lending rates by commercial banks. Yes, the pocovid increase in food and fossil fuel prices that has already occurred in 2021 has been reinforced by the war in Ukraine. Unfortunately, there are many indications that the high level of inflation will continue for another few months or even another few quarters.

Conclusions

The continued rapid rise in inflation until mid-2022 has been, and continues to be, a key problem to be addressed in the context of the socio-economic policies being pursued. The central bank's raising of interest rates risks having a greater impact of this action as a deconstruction-generating factor than as an anti-inflationary factor. This is because commercial banks raise lending rates faster than deposit rates. One important anti-inflationary instrument is to raise the opc. of new government bond issues. On the other hand, an increase in the cost of rolling government bonds can be offset in the state budget by a periodic increase in VAT taxes on selected consumer products. In addition, in order to encourage citizens to save, the tax on capital income can be abolished, if such a tax was previously introduced. The rise in inflation is still so rapid that anti-inflationary measures based solely or mainly on central bank monetary policy are proving insufficient and may significantly increase the scale of the downturn in the next quarters and in 2023. In a situation of speculative house price increases, fiscal solutions can be introduced to limit the scale of this process. In a situation where producer inflation is significantly higher than consumer inflation, this means that companies and enterprises, fearing that the prices of production factors will rise in the following months, buy in advance and increase their stocks of raw materials, prefabricated elements, components, which they will use in production processes in the following months and quarters. This sets in motion an upward spiral in the prices of various factors of production. Significantly higher and rising producer inflation is an important factor in generating consumer inflation. Consequently, it is important to develop instruments to discourage stock purchases of manufacturing factors. In addition to this, an important pro-inflationary factor is the application, still in some countries, of post-pandemic benign fiscal policies based on the introduction of successive financial support programmes, subsidies, grants, etc. Such a situation exists, for example, in the country where I operate and is related to the use of the state finance system to build political support for the ruling party ahead of the parliamentary elections sched-

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uled for autumn 2023. In conclusion, since during the SARS-CoV-2 (Covid-19) coronavirus pandemic a large amount of additional money was introduced into the economy without being covered by commodities, it is now necessary to introduce effective, interventionist instruments to take this additional money out of the economy, out of circulation.
Since the beginning of 2022, more and more comparative analyses of the anti-pandemic and anti-crisis government health and economic policy programmes applied in individual countries have been appearing. In Brazil, California, Florida, Sweden and Norway there were no lockdowns and they had a better pandemic and economic situation than in, for example, Poland. In Poland, on the other hand, despite the introduced lockdowns (modelled on Western Europe and many states in the USA), the pandemic situation was poor and had one of the highest levels of Covid-19 disease mortality globally. Due to the unnecessarily introduced lockdowns, the government put the economy into a deep recession in 2020 during wave 1 of the pandemic.
Subsequently, subsidy programmes for enterprises were launched on the basis of mainly printed, empty money, which triggered rapidly rising inflation from February 2021 onwards. The government in Poland unreflectively copied the solutions of the so-called anti-crisis economic policy[29] applied during the coronavirus pandemic in the USA. No account was taken of the fact that the Polish currency is not a global currency like the USD. It also failed to take into account that the US is governed by an establishment susceptible to the influence of lobbying by, among others, the financial sector, which was clearly evident from the mid-1990s and led to the worst financial crisis in 2008. Unfortunately, governments that make mistakes with their economic policies only lose elections and are not held accountable for their wrong decisions. On the other hand, citizens are left with the problem of the economic crisis, high inflation, stagflation, rising unemployment, the climate crisis, etc., who have been manipulated by the[87] government-controlled media. Combating inflation through the most templated solutions of tightening monetary and fiscal policy instruments is currently not an easy solution, as it also generates a cooling of economic processes. Unfortunately, the symptoms of a worsening economy are already appearing, so the possibilities of continuing to tighten monetary and fiscal policy are already very limited. In addition, in many countries, the indebtedness of the public finance system has reached the highest levels of the prudential indicators, so the possibilities of reapplying public financial assistance to activate economic activity are also limited. However, perhaps the use of a programme of large investment projects[88], organised and financed by the state and implemented according to the Keynsian model[55], would reduce the level of risk of rising unemployment, but could become another pro-inflationary factor. In order to reduce the scale of the pro-inflationary factor, the state should, even at the expense of an increase in the indebtedness of the state finance system, extend supply-side policies and activate economic agents to produce. However, such a solution could also generate an increase in wages and would contradict the implementation of the concept of sustainable development[78] with the reduction of overconsumption, overproduction, overconsumption of natural resources and the generation of non-biodegradable waste[52]. In addition, further crises, i.e. the raw material and food crises, have emerged

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and are developing in connection with the war in Ukraine. Therefore, the following question will continue to be relevant in the months to come: what interventionist, anti-crisis measures are currently available for use that could reduce inflation and prevent the possible emergence of stagflation? Attempts to answer this question appear in numerous current debates and discussions in various media[40]. Whether it will be possible to develop and introduce a single anti-inflationary economic policy that is universal for use in different countries is still an unresolved question.

On the basis of the research conducted and the considerations outlined above, the research theses formulated in this article below have been fully confirmed. Accordingly, the thesis that the anti-covid restrictions and lockdowns applied in 2020 increased the scale of the recession in the economy and the non-refundable subsidies provided to commercially operating businesses as part of the financial state aid became a key factor in the increase in inflation was confirmed[79]. Postcovid inflation growth in many countries is already emerging almost from the beginning of 2021. Thus, the postcovid rise in inflation did not occur accidentally, but as a result of misguided, excessively interventionist and monetarist national economic policies.

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