

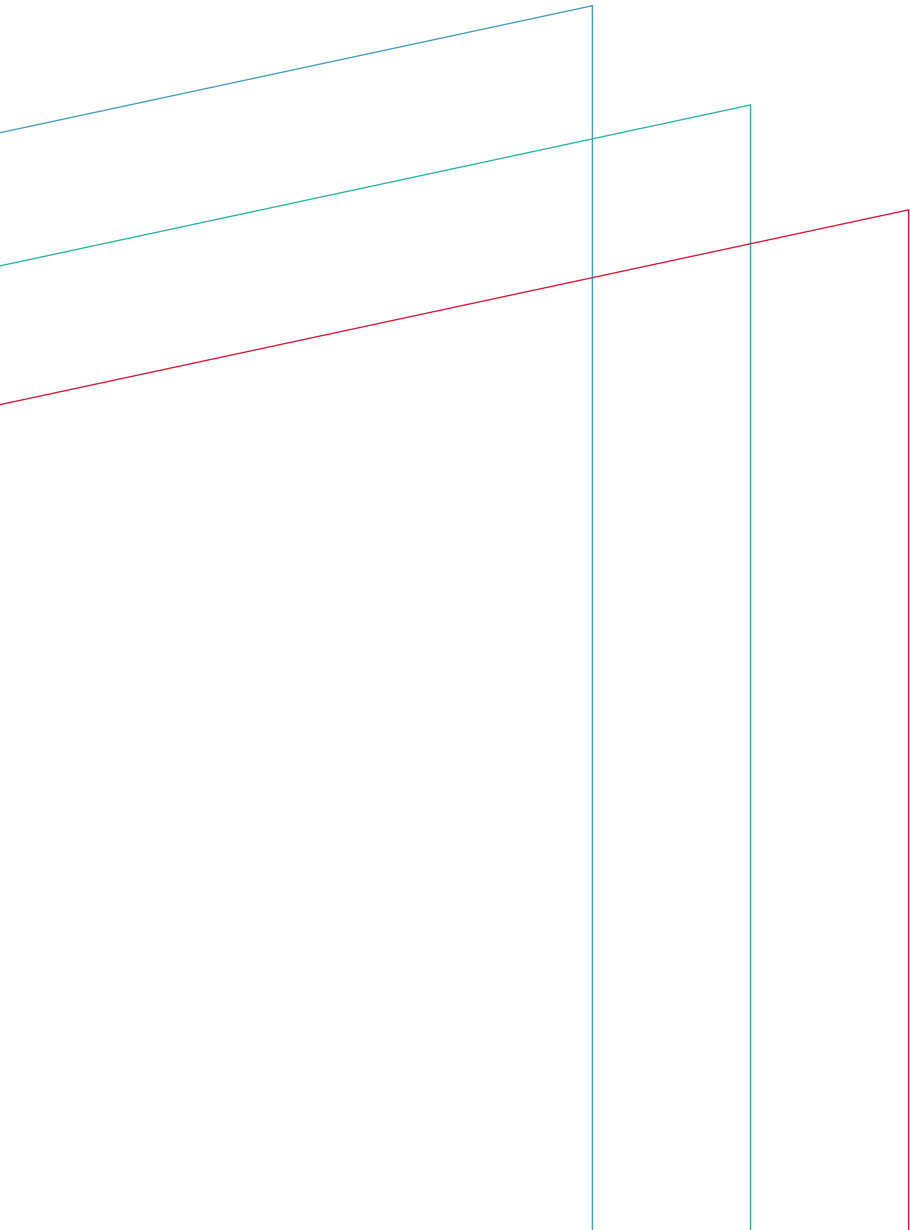
HOW DO YOU SOLVE A PROBLEM LIKE INFLATION?

THE CASE FOR MONETARY-
FISCAL COORDINATION

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EXECUTIVE SUMMARY

One might imagine that a government and its central bank work together to ensure that their actions complement rather than contradict each other and that the most appropriate monetary and fiscal tools are used to tackle any given problem. This was often the case historically, with many European countries between the second world war and the inflation crisis in the 1970s using monetary-fiscal coordination to achieve strong growth, develop industrial sectors, bring down government debt, and invest in the future.

While not entirely absent, monetary-fiscal coordination has felt more sporadic and coincidental in Europe since the 1970s. There have been times when it has been notably lacking. In other parts of the world, however, monetary-fiscal coordination has more recently been deliberately deployed.

There are urgent challenges that monetary-fiscal coordination could help to address. For example, in many countries, two factors jeopardise unlocking the public and private green investments nations need to combat climate change. First, the higher interest rate environment makes borrowing and investment more expensive. Second, fiscal rules encourage fiscal consolidation for many countries. NEF analysis, for example, showed only three EU countries could meet EU climate and social targets from borrowing while staying within fiscal rules¹. Good monetary-fiscal coordination could help overcome these challenges.

In addition, keeping monetary policy and fiscal policy in strict silos with set responses (eg interest rate hikes are always the best tool to tackle inflation) has hampered countries' abilities to address crises. For example, in the previous decade, even unorthodox monetary policy responses failed to sufficiently raise consistently deficient demand in the absence of fiscal policy support. Meanwhile, recent supply-side inflation has illustrated that traditional responses to inflation have limited effect in certain circumstances. A country should

use the most appropriate tools at its disposal to address crises. This is particularly crucial given that because of climate change and geopolitical tensions, economic disruption may occur more frequently in the future. We therefore argue that more intentional monetary-fiscal coordination would help central banks meet their primary price stability mandates, while also allowing governments to increase public investments towards agreed objectives, including climate action.

Monetary-fiscal coordination is becoming harder to ignore. Central banks have been operating since the 2008 financial crisis using a broader definition of their price stability mandates than had previously been the case. For example, buying government debt has raised concerns about central bank independence and the role of a central bank in supporting government finances, while buying select corporate debt has exposed the myth of central bank 'market neutrality'. Meanwhile, there has been extensive debate around many central banks now addressing climate change as part of their price and financial stability mandates.

As another example, central banks are recording losses on their balance sheets and moving into negative capital positions due to large interest payments on their reserves created during quantitative easing (QE) programmes. They are also making losses from unwinding QE. In cases, such as the UK, this results in large transfers from the government to the central bank, with this money being passed on to commercial banks. How central banks share profits and losses with treasuries is thus finding newfound importance.

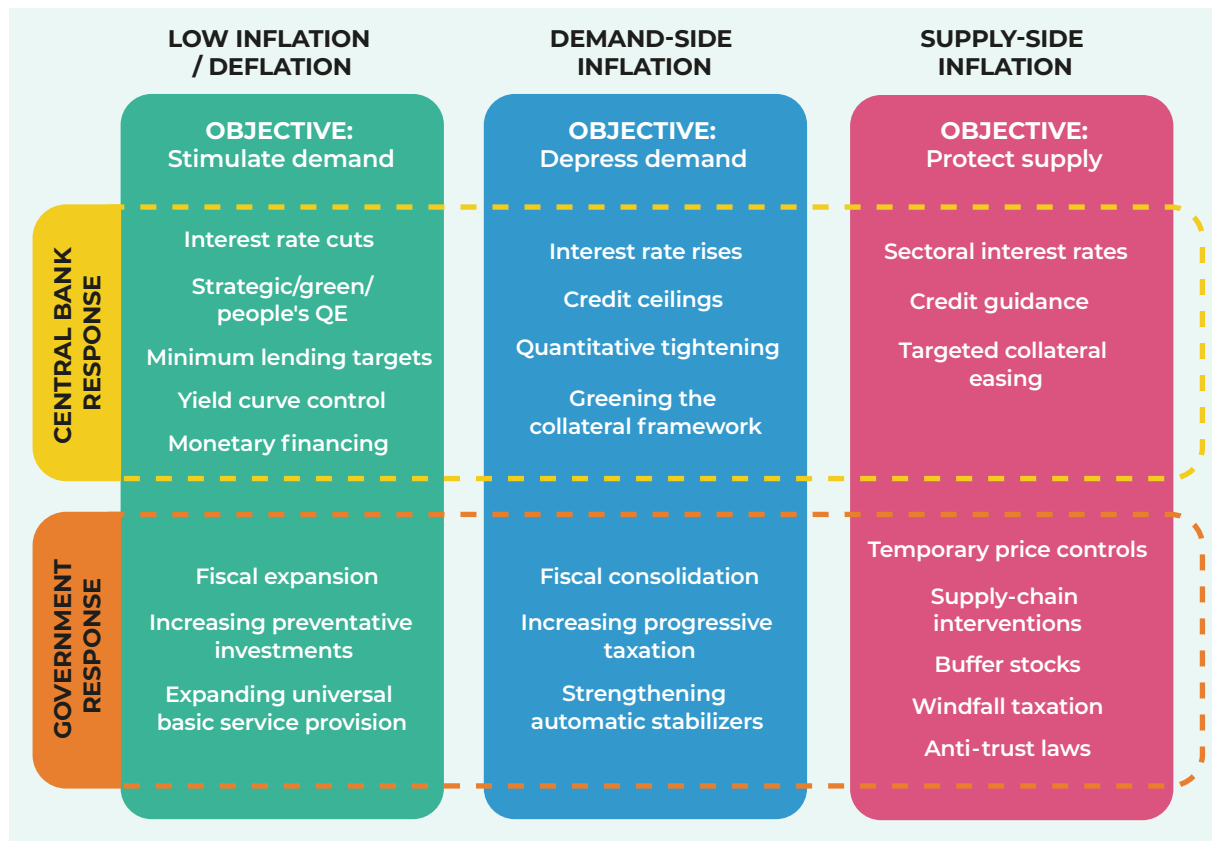
Inflation has also become a decisive issue for elections and political stability. Rising prices, particularly in essentials such as food, energy, and housing, have a direct and visible impact on voters' everyday lives. Public dissatisfaction with inflation often erodes trust in the government, making it a key battleground in electoral contests. Ensuring price stability through monetary-fiscal coordination is therefore not only an economic imperative but also a political necessity to maintain democratic legitimacy and counter the rise of extremist forces.

How monetary and fiscal policies should optimally coordinate and respond to problems depends on the inflationary environment, the underlying causes of inflation, and other economic factors. Figure 1

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FIGURE 1. A DIAGRAM FOR BETTER MONETARY-FISCAL COORDINATION

NEF categorisation of fiscal and monetary policies by which tools are best suited for different types of inflation. Policies listed are a mixture of short-term responses and long-term strategies to bring inflation down. Longer term policies are placed within inflation scenarios where their expansion or use can be more easily justified to meet both government and central bank objectives in that specific context.



Source: Authors' own

gives an overview of fiscal and monetary policy tools which could be used by governments and central banks in different types of inflation scenarios. During deflationary episodes, for example, central banks have a range of tools at their disposal, including interest rate cuts, yield curve control, QE, strategic QE, direct and reversible financing of government and public investment banks, direct and irreversible financing of governments or public investment banks, direct and irreversible transfers for citizens, and minimum lending ratios. Governments, meanwhile, could take advantage of lower interest rates to invest to promote future growth and price stability. Moreover, if the stagnation is a result of government underspending, then governments should not expect central banks to compensate for this, especially as monetary policy can become limited as we saw when interest rates were cut to zero. Instead, the government should loosen fiscal policy to get the economy out of stagnation.

In contrast, during times of high inflation driven by supply problems, the range of tools central banks could use include raising interest rates to a sufficient level to prevent wage-price spirals, discounting interest rates for sectors where investment is needed to overcome supply problems, and using targeted collateral easing to help facilitate the financing of sectors that could help tackle current or future sources of price instability. The government, meanwhile, could address supply bottlenecks, enhance emergency storage capacity, impose windfall profit taxes where appropriate, and enforce antitrust laws. There may also be situations where price controls are relevant, particularly in uncompetitive markets where companies have enough market power to push prices upward. In addition, before inflationary incidents occur, governments should explore supply chain weaknesses and look to take measures to address vulnerabilities before they develop into problems.

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Finally, central banks could raise interest rates in high-inflation environments fuelled by excess demand. They could also take a targeted tightening approach, by slowing down the sectors driving inflation more forcefully than those less responsible or, given the impact climate change could have on the economy and price stability, slowing down carbon-intensive sectors more rapidly than the rest of the economy. Tools for targeted tightening could include collateral framework adjustments, strategic quantitative tightening, or credit controls or ceilings. Governments, meanwhile, could use progressive taxation to take the heat out of the economy. Furthermore, if significant public investment had already occurred during low-inflation periods, subsequent cuts to public spending during high-demand inflation could effectively temper demand without compromising essential political objectives.

As outlined in this report, it is possible to design a governance framework that permits improved monetary-fiscal coordination, while protecting democratic mandates and central bank independence.

First, governments should clarify central banks' secondary mandates to indicate how broader government economic policies could be supported. This should involve providing a short list of government policy objectives that monetary policymakers could realistically contribute to (this already happens in the UK, but not in the EU). Having political institutions specifying clear secondary goals would not undermine central bank independence, as central banks would retain complete autonomy in making monetary policy decisions. The primary mandate would also remain superior to any secondary mandate to support broader government policy goals. This means that central banks could overlook any secondary goal that it felt reasonably and demonstrably conflicted with its price stability mandate.

Second, we suggest creating an independent and deliberative *advisory* board (called, say, the Economic Coordination Council, or ECC), composed of representatives from a range of fiscal, monetary, and banking experts (but not from the central bank, government, or other policymaking institutions), along with other relevant experts, such as from climate science or trade bodies. The ECC should explore how to achieve policy coordination; for example, by identifying contradictory policies and

under-exploited instruments. It should extensively consult with government and central bankers, and publicly release independent policy *recommendations* to help advise both the executive and the central bank. Neither the central bank nor the government should be required to implement these policies (the autonomy and independence of both should be maintained). However, if they choose to not implement the ECC's recommendations, they should be required to explain their reasoning publicly. This would help increase transparency and accountability in both monetary and fiscal policymaking.

In addition, there is currently very little accountability when monetary-fiscal coordination is lacking. If the ECC concluded that either the government or the central bank was missing key opportunities to coordinate, or where the effect of a lack of coordination was problematic, then this could be flagged. It could also inform parliament about political or legislative barriers to better monetary-fiscal coordination. For example, central bank mandates could be amended to allow monetary financing under very specific circumstances, such as during times of sustained excessively weak demand, low inflation, and where interest rates are already at or near zero. Legislation could also be amended, where necessary, to allow central banks to directly (reversibly or irreversibly) finance independent public investment banks, which may come with fewer risks than financing a government directly. In addition, strict fiscal rules could be ill-advisedly holding back a government from taking vital action to fulfil fiscal or monetary policy objectives. Finally, stronger fiscal coordination may also be a pre-requisite for strong monetary-fiscal coordination in multi-government jurisdictions, such as the EU.

All relevant decision-making bodies should formally recognise the existence of the ECC and commit to contributing to its work and carefully considering its recommendations. Other ways to achieve political buy-in could include giving each policymaking institution responsibility for directly appointing a subset of the ECC's expert members. They could also each appoint one of their representatives as co-chair of the ECC, so they have skin in the game and a first-hand understanding of the work in progress in the ECC. These co-chairs would act as conveners and witnesses of the deliberations, but would not be involved in the deliberations themselves or in proposing recommendations, and they would not have voting powers.

1. INTRODUCTION

Our current macroeconomic policy framework is broken. It does not allow us to optimally respond to crises and take preventative action to help stop problems from emerging. As German economist Isabella Weber argues,² “price spikes in essentials can topple governments,” while ensuring price stability has the potential to secure electoral success. Price spikes in essentials – driven by constrained supply, surging demand, and profit-driven pricing decisions – have not only fuelled general inflation but have also disproportionately impacted poorer households, underscoring the urgent need for coordinated strategies to stabilise prices and shield the most vulnerable.

The past two decades have seen the western world move from economic crisis to economic crisis, including the 2008 financial crisis, the European debt crisis, concerns around ‘secular stagnation’ (an epoch of poor economic growth stemming from structurally low private demand),³ and the economic fallout from the Covid-19 pandemic and geopolitical tensions, including the recent cost-of-living crisis. As we will explore in Chapter 2, government and central banks have worked well together at times to help manage these crises; however, there have also been times of discoordination, and sometimes even contradictory actions by governments and central banks, which in both cases would have been helped by active coordination efforts.

Moreover, as explored throughout this report, it is questionable whether the best tools were always deployed to tackle the problems at hand. At times, both central banks and governments have been constrained in their thinking, particularly due to orthodox mindsets about the roles that both play in the economy and who is responsible for tackling certain types of crises. The evolving relationship between a government and its central bank is also becoming harder to ignore, due to central banks starting to interpret their price stability mandates more broadly, and implicit (sometimes explicit)

relationships between the central bank balance sheet and government finances.

Monetary policy uses interest rates, financial regulation, and other tools to influence the money supply, macroeconomic conditions, and financial stability, to keep inflation (and sometimes unemployment) low and stable. Fiscal policy, meanwhile, uses government spending and taxation to influence demand, savings and investment, income distribution, and resource allocation across different sectors of the economy. Fiscal policy is administered by governments, while monetary policy is usually delegated to independent central banks. Monetary-fiscal coordination ensures government and central bank actions complement rather than contradict each other, and that the most appropriate monetary and fiscal tools are used to tackle any given problem.

Monetary-fiscal coordination could help address urgent challenges. For example, in many countries, two factors jeopardise unlocking the public and private green investments nations need to combat climate change. First, the higher-interest-rate environment makes borrowing and investment more expensive. Second, fiscal rules require fiscal consolidation for many countries. NEF analysis, for example, showed only three EU countries could meet EU climate and social targets while staying within fiscal rules.⁴ Well-designed monetary-fiscal coordination could help overcome these challenges.

We often appear to be living in a world of overlapping emergencies which makes proactive policies to minimise risk and disaster preparedness to deal with potential upcoming shocks even more important. For example, we can already start to see the economic fallout from more frequent extreme weather events.⁵ Moreover, climate change and heat extremes will only increase inflationary pressures.⁶ Intentional monetary-fiscal coordination is an opportunity to better prepare our economies and societies to mitigate future crises and adapt to the potential economic, environmental, and social effects thereof. Discoordination of monetary-fiscal policy, on the other hand, can also lead to one authority having to overwork to meet its mandates, sometimes producing unwanted side effects, while coordination could make achieving an objective much easier.

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Inflation has also become a decisive issue for elections and political stability. Rising prices, particularly in essentials such as food, energy, and housing, have a direct and visible impact on voters' everyday lives. Public dissatisfaction with inflation often erodes trust in the government, making it a key battleground in electoral contests. Ensuring price stability through monetary-fiscal coordination is therefore not only an economic imperative but also a political necessity to maintain democratic legitimacy.

Currently, elected governments can mandate their central banks with secondary objectives alongside their primary price stability mandate. Yet central banks' independence means they are free to interpret and implement these objectives as they wish, leading to "independent policy coordination".⁷ Central banks could use their tools to support governments in meeting their democratically elected goals, where this doesn't jeopardise central banks' primary price stability mandate. Equally, governments could use their tools to support central banks in meeting their democratically decided price and financial stability mandates, where this also satisfies government goals. Importantly, there may be scenarios where central banks consider the tools that governments have more effective at fighting inflation and governments believe central banks have better tools to meet other economic goals. To maximise possibilities and promote flexible and effective policy solutions, bilateral coordination is a key step beyond independent coordination which has been limited to discretionary additional policies.

Moreover, central bank and government goals are often actually interlinked. For example, meeting environmental objectives can foster long-term price stability by avoiding or mitigating the inflationary impacts of climate change.⁸ Similarly, addressing labour constraints can help reduce supply-driven inflation. As one final example, social objectives can foster long-term financial stability by lowering inequality, reducing people's reliance on debt, and reducing the prevalence of overleveraged individuals and firms whose bankruptcy can have spillover effects leading to a financial crisis.⁹ Economic policies cannot be compartmentalised;

a unified, collaborative approach is essential for addressing the multifaceted challenges of the modern world. As we saw in Figure 1 in the previous chapter, there are many fiscal and monetary policy tools which could be used by governments and central banks in different types of inflation scenarios.

It is worth noting that some soft bilateral coordination between governments and central banks already takes place as part of the EU's Economic and Financial Committee and Economic Policy Committee under the umbrella of the Economic and Financial Affairs Council (ECOFIN). In the UK, the treasury and the Bank of England have regular meetings and exchange letters on policy issues. While these discussions occasionally align objectives, they do not constitute a deliberate, transparent, or structured framework for coordination, leaving room for improved coherence in achieving monetary and fiscal objectives.

This report explores the history of monetary-fiscal coordination in the EU and the UK and how it could be used today to help economies tackle crises and generate prosperity. In Chapter 2, we explore the concept, along with historical and international examples. Chapters 3, 4, and 5 describe the ways that monetary and fiscal policy could be better coordinated under low, supply-driven, or demand-driven inflation, respectively. Chapter 6 proposes institutional arrangements that could facilitate monetary-fiscal coordination while protecting the independence of central banks. Chapter 7 summarises our recommendations and concludes.

2. A BRIEF HISTORY OF EUROPEAN MONETARY-FISCAL COORDINATION AND SEPARATION, 1945 TO NOW

The current macroeconomic framework in most advanced economies is officially built on a strict separation of democratically set fiscal policy implemented by governments, and democratically mandated monetary policy implemented by independent central banks. However, this was not always the case. The separation has also been increasingly blurred in recent times. The following gives a brief history of how monetary and fiscal policies have been coordinated and separated.

2.1 POST-WAR MONETARY-FISCAL COORDINATION

After the first and second world wars, many European countries had amassed large debts but were also entering new political climates. Governments made spending commitments to build welfare states with more generous social security programmes and universal public services,¹⁰ while also implementing ambitious industrial strategies.¹¹ Such expenditure was facilitated by both fiscal and monetary policies being accommodative to this post-war expansion.¹²

Many central bank policies of the time helped explicitly¹³ by guaranteeing low interest rates on government debt or providing special lending channels for areas aligned with government goals.¹⁴ The Banque de France, for example, offered direct central bank credit through rediscounting facilities, with 'rediscounting ceilings' in place to limit how much such a facility could be used. These ceilings, however, were designed to give priority access to certain sectors, like industry, agriculture, energy, transportation, and housing, which the government

deemed important.¹⁵ As another example, the Bank of England targeted a 2.5% interest rate on long-term borrowing during Attlee's government, a rate supported by Bank of England bond purchases¹⁶. Further descriptions of such policies and historical examples are provided in Chapters 3–5.

During this period, European economies grew at historic rates.¹⁷ This, combined with the accommodative low interest rates from central banks helped rapidly shrink post-war debt-to-GDP ratios.¹⁸ However, some describe this as a period of "financial repression"¹⁹ as savers earned less than inflation due to such low interest rates, highlighting the trade-offs that can result from closer coordination.

2.2 THE SEPARATION OF MONETARY AND FISCAL POLICY

Monetary-fiscal coordination started to break down in the 1970s when the USA stopped using the gold standard, where the dollar had been pegged to a certain amount of gold. The gold standard helped but did not guarantee stable prices.²⁰ The Bretton Woods system, which had pegged international currencies to the dollar (and had been struggling for some time²¹), collapsed, causing extensive foreign exchange volatility.²² Alongside this, the Organization of the Petroleum Exporting Countries (OPEC) oil crisis increased energy costs.²³ Meanwhile, governments implemented fiscal measures to combat unemployment,²⁴ with central banks taking a similar approach and running loose monetary policy.²⁵ Despite these multiple factors leading to high prices, political narratives in the UK coalesced around trade unions as the cause of inflation due to wage-price spirals,²⁶ ushering in many anti-union laws in the aftermath.²⁷ A more holistic view might see this as a very limited explanation with wage-price spirals rising out of the conflict over resources that these other inflationary factors initially caused.²⁸ The lasting effect of anti-union legislation has made sure the brunt of the cost of inflation episodes fell on workers.²⁹

More widely, central banks were also heavily criticised for the decade of inflation; it was believed that their governance and focus needed revision.³⁰ Many economies experienced high inflation and unemployment at the same time (stagflation),

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which had previously not been thought possible. This led to changes in theories around the Phillips Curve; specifically, the mainstream belief shifted to there being no long-term trade-off between inflation and unemployment³¹. Combatting inflation thus became a central bank's primary goal,³² with the rise of theories of monetarism and rational expectations playing a role in the shift.³³ However, these theories tended to blame inflation almost solely on government mismanagement and interference in monetary policy. It was believed that independence would therefore help a central bank achieve its inflation goal³⁴ as well as give it the credibility to anchor market participants' inflation expectations. Governments might, for example, lean on central bankers to lower interest rates close to elections purely for an electoral boost,³⁵ but central bank independence would help shield central bankers from such forces. Governments across the world subsequently made central banks independent.³⁶ In addition, central banks reduced their holdings of government debt, as their support for government deficits was now discouraged.³⁷

The risk of fiscal dominance, where governments use monetary policy tools to achieve fiscal goals at the expense of price and financial stability objectives, was certainly not unfounded. During the Korean war, for example, there was a tussle between US President Truman and the Federal Reserve.³⁸ The Fed wanted to raise rates to combat inflation, while Truman wanted low interest rates to help fund the war effort. An uneasy compromise was reached whereby 5-year debt would be supported for a while longer.³⁹ Similarly, President Johnson was angry when the Fed raised rates during the Vietnam war. He also tried to pressure the Fed, but this time the Fed held its ground.⁴⁰

There thus emerged the model of central banking we see today – independent central banks with a primary focus on combating inflation and ensuring financial stability. While wider objectives, such as directing credit towards certain strategic sectors or supporting government finances, were dropped. Many central banks were, however, given secondary mandates to support broader government economic policy, but these secondary mandates are often sidelined and poorly defined. This is discussed in detail in Chapter 6.

Lower inflation was common by the mid-1990s, and it remained fairly low until the Covid-19 pandemic.⁴¹ However, economists are still debating whether this was the result of the new central banking model, or whether central banks were simply fortunate enough to benefit from international drivers of inflation subsiding and new deflationary forces, such as globalisation,⁴² technological progress,⁴³ and demographical trends.⁴⁴

Furthermore, as governments made central banks more independent, they also deregulated the private banking sector.⁴⁵ In fact, some argue that central bank independence encourages governments to deregulate,⁴⁶ as it can be leaned on as a tool to give short-term benefits to the electorate, for example, increasing the volume of lending to fund consumption or home ownership. However, this deregulation coincided with, and likely helped cause, ever-more common financial crises,⁴⁷ culminating in the 2008 financial crisis. As the next section explores, the response and aftermath provided a distinctly different fiscal-monetary mix.

2.3 THE 2008 FINANCIAL CRISIS AND FOLLOWING MONETARY-FISCAL DISCOORDINATION

The financial crisis and its aftermath showcased the need for coordinated monetary and fiscal policies. The eurozone crisis provided a clear example of how the objectives of central banks and fiscal authorities can intertwine, with spiralling government borrowing costs leading to financial stability concerns. Therefore, monetary authorities had to intervene to end the crisis. Subsequently, throughout the 2010s, central banks used expansionary measures while some fiscal authorities implemented austerity measures. These opposing stances helped contribute to the period of economic stagnation shared by many countries after the 2008 financial crisis. Therefore, better coordination in this period could not only have prevented or lessened the depth of the crisis but could also have increased prosperity. This section explores these ideas in more detail.

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To stop the financial crisis, governments provided unprecedented fiscal support to the banking sector. Yet for some countries in Europe, this pushed debt to high levels which markets perceived as risky. In the eurozone, the lack of explicit central bank backing of sovereign debt caused the spreads between interest rates for different European countries to rise significantly.⁴⁸ Financial markets demanded higher interest rates, making it harder for countries to finance deficits. In addition, countries struggling with these costs were also less likely to recapitalise their banking sector, instead providing fiscal guarantees,⁴⁹ which only pushed problems down the line. A vicious cycle of self-fulfilling expectations began when increased expectations of default caused interest rates to rise, which further increased expectations of default,⁵⁰ ultimately resulting in major political instability.

To stop the crisis, bailout packages and monetary interventions were required, but these came with strict conditions. For example, the European Central Bank's (ECB's) acceptance of Greek bonds as collateral (therefore allowing banks with ownership of Greek debt to access more liquidity) was subject to the Greek government's compliance with the demands of the Troika.⁵¹ Furthermore, the bailout packages received by Greece, Ireland, Portugal, Spain, and Cyprus came with strict austerity requirements. Here a lack of proper coordination channels forced governments to accept the conditions of central banks, despite evidence suggesting such conditions deepened aspects of the crisis.⁵²

Ultimately, the fiscal crisis was only resolved after ECB President Marco Draghi's statement that the ECB would do "whatever it takes"⁵³ and the subsequent announcement of the Outright Monetary Transactions programme (which also required countries to agree to economic reform measures⁵⁴) to provide the ECB with the ability to do so. This thereby implied central bank backing for sovereign debt. The effectiveness of Draghi's speech in calming financial markets is itself a demonstration that had such a guarantee been clear before the crisis, the vicious cycles described earlier might not have even started. Therefore, how central banks are expected to support governments during a crisis is a clear area where coordination could make a difference.

As the 2010s continued, the policy stances of fiscal authorities and central banks further diverged. Perhaps encouraged by the EU's strict fiscal rule framework, even countries not in direct fiscal crisis took on austerity measures as high government debt was seen as a problem. Government budget cuts were widely adopted across countries. However, these austerity measures largely failed to reduce debt⁵⁵ and likely added to the stagnation economies faced⁵⁶ while also increasing poverty and inequality.⁵⁷

The low growth and low inflation in this period meant central banks became the only game in town. After cutting interest rates to near-zero levels they then experimented with unconventional measures like quantitative easing (QE). QE involved central banks buying government and corporate bonds to provide liquidity to the financial sector to try to amplify the effect of low interest rates.

Further unconventional measures included targeted lending schemes (ie *targeted longer-term refinancing operations* or TLTROs). With such programmes, central banks offered banks the chance to lock in lower interest rates on their loans, provided they increased lending to businesses (or, in some cases, households or small and medium enterprises (SMEs)). Again, this policy aimed to amplify the effect of low interest rates.

However, QE and TLTROs were relatively ineffective⁵⁸ at resolving the low growth and low inflation of the period, particularly given the quantities of money spent. As recently recognised by ECB board member Isabel Schnabel, "Asset purchases are more powerful for stabilising markets than for stimulating the economy."⁵⁹ This led many economists to question the ability of central banks to handle such a task alone and to conclude that austerity in the aftermath of the crises had held back recoveries in many countries.⁶⁰

Whether the unconventional tools central banks used were already too dull to stimulate the economy properly, or government austerity nullified the effects, policies working in opposite directions certainly did not help. Clearer recommendations from central banks that government spending would help stimulate the economy, or recognition

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that monetary policy tools were limited in this regard, might have been able to orient policies towards a better solution.

Furthermore, the activist monetary policy in this period exposed how central bank ‘market neutrality’ – the idea central banks can act without affecting relative market prices – is something of a myth. All central bank policy decisions have different effects on different types of assets, and so impact relative prices.⁶¹

For example, QE has been linked to rising wealth inequality due to its transmission channels focusing on appreciating the value of financial and physical assets.⁶² In addition, corporate QE required central banks to choose which corporate bonds they bought, improving credit conditions for the businesses affected.⁶³ With 60% of the ECB’s corporate debt portfolio linked to the most carbon-intensive sectors, it is hard to see how this can be presented as neutral. Therefore, while central banks could never really neutrally intervene in the economy, the unconventional policies deployed after the financial crisis exposed this even further.

Moreover, despite their theoretical independence, central banks’ implementation of QE has had significant fiscal implications on government treasuries by essentially monetarily financing portions of government debt, swapping bonds for reserves. While this meant governments received profits from central banks while the income from bonds outstripped the interest they paid on reserves, these have turned to losses with higher interest rates on reserves, with some treasuries directly on the hook. In fact, the large amounts of reserves created from QE combined with high interest rates have meant private banks are receiving a large windfall in income, likely helping their record-breaking profits. We explore this issue further in Box 1 in Chapter 4.

Therefore, coordination isn’t just an issue of securing the best policy outcomes; it is also a way central banks can get away with policies that have wide-ranging distributional and fiscal implications with little scrutiny and accountability.

2.5 THE COVID-19 PANDEMIC AND COST-OF-LIVING CRISIS

During the pandemic, both fiscal and monetary authorities deemed a stimulus necessary. EU countries provided fiscal stimuli,⁶⁴ loan guarantees, and access to the eurozone’s bailout fund for healthcare.⁶⁵ The European Commission suspended fiscal rules and launched the Next Generation EU package, including loans and grants funded by joint debt, moving towards greater EU fiscal unification. The UK spent £410bn on public services, business, and individual support.⁶⁶

Central banks maintained low interest rates and stepped up QE. The ECB, for example, introduced the Pandemic Emergency Purchase Programme (PEPP), while the Bank of England conducted £450bn of additional QE in 2020. The ECB also extended targeted lending operations to support the real economy,⁶⁷ lowered the interest rate on the programme,⁶⁸ and eased collateral eligibility requirements, for example, by allowing Greek government debt to be accepted as collateral.⁶⁹ The Bank of England similarly rolled out a term funding scheme with additional SME incentives,⁷⁰ bought corporate debt, and reduced supervisory and prudential policy measures.⁷¹

While communications around QE were focused on traditional central bank goals, such as ensuring the effective functioning of bond markets or helping inflation return to target, a *Financial Times* survey found that the “overwhelming majority” of investors surveyed believed that the Bank of England’s true motivation was to support government debt.⁷²

Post-pandemic inflation, driven by excess savings, supply-chain disruptions, and the Ukraine war, caused fiscal and monetary policies to diverge. Central banks shifted to restrictive policies. The Bank of England raised rates and began quantitative tightening in 2022, while the ECB reduced QE and hiked rates, using bond buying to assist struggling countries. Governments increased spending to address the cost-of-living crisis, with EU fiscal rules suspended until 2024. However, some of the fiscal support was directed at price-suppressing measures, and so was consistent with monetary policy. For example, Spain, France, Greece, and the Netherlands implemented comprehensive price controls or decreased value-added tax (VAT) rates and other energy-specific taxes.

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In 2022, the ECB also introduced the transmission protection instrument (TPI), which enabled the ECB to buy eurozone country government bonds if it believed interest rate spreads between different eurozone countries did not reflect economic fundamentals.⁷³ There is no precise science around which part of a yield reflects economic fundamentals and which part is down to market mispricing, so there would inevitably be subjectivity in any such interventions.⁷⁴ The TPI was designed to ensure smooth monetary policy transmission across the eurozone, and was justified under the ECB's secondary mandate but raised concerns about encouraging irresponsible borrowing and monetary financing.⁷⁵ The TPI also directly supported fiscal rules, as the ECB specified it would only buy bonds from countries following the Union's fiscal framework. So far, the TPI has not been used; however, the mechanism is in place, so that the ECB is poised, if necessary, to support government borrowing, even if this is not the official intention, representing a key way fiscal and monetary policies interact.

2.6 CENTRAL BANKS AND CLIMATE CHANGE

In recent years, central banks have acknowledged the impact of climate change on their primary price stability and financial stability mandates,^{76,77} and have taken steps to incorporate climate considerations into their operations. The Bank of England and the ECB, for example, both took steps to 'green' their corporate bond purchases,^{78,79} while the ECB has started to consider climate change in its collateral framework⁸⁰ and capital adequacy requirements.⁸¹ In 2024, the Bank of England also announced steps to adjust haircuts on collateral accepted, to account for the impact of energy price shocks on mortgage repayments, and risks from more frequent and severe flooding.⁸² More details on all such central bank climate policies can be found in Chapters 3–5.

Such action represents a broader interpretation of central bank primary mandates than previously had been the case. Unsurprisingly, such moves have drawn criticism from those concerned that they risk undermining central bank independence by politicising central banks, with the mission creep also potentially jeopardising their ability to focus on combatting inflation.^{83,84} Some argue that central

banks are wrongly being forced to address climate change to compensate for insufficient government action.⁸⁵

Others argue central banks should be going further; for example, by following the lead of central banks in Japan and China by implementing green targeted lending schemes to help facilitate the financing of green projects, and so help reduce dependency on price-volatile global fossil fuel markets.⁸⁶ The ECB's green collateral and capital adequacy proposals have also been criticised for not sufficiently addressing climate risks.^{87,88} Such demands reflect how central banks have played a proactive role in the past to provide special financial conditions for sectors aligned with government objectives. Overall, this shows some central banks are already trying to coordinate with governments to tackle climate change. More direct and explicit coordination would only strengthen the ability of central banks to respond, while ironing out issues over who is ultimately responsible for what.

3. MONETARY-FISCAL COORDINATION IN TIMES OF HIGH SUPPLY-DRIVEN INFLATION

Demand-pull inflation occurs when there is excessive demand, such that the demand for goods and services exceeds supply. In such cases, interest rate rises dampen spending in the economy, thus depressing demand and inflation.

In contrast, cost-push inflation is caused by the supply of goods or services falling; for example, due to supply chain disruption overseas following a natural disaster.

Interest rate hikes can't address the causes of such inflation without crashing the economy to significantly bring down demand, and they risk hindering investment required to boost supply.⁸⁹ However, they can help stop a currency from depreciating (which fuels inflation for importing nations) if overseas central banks are also hiking rates,⁹⁰ and reduce knock-on domestic effects, such as wage-price spirals, where people demand higher wages due to the higher cost of living, and this, in turn, increases input costs and thus inflation, with this inflation spiral potentially continuing indefinitely. However, one should note that while central bankers deeply fear wage-price spirals, there are doubts about how often they emerge in practice.⁹¹

The USA and Europe recently experienced supply-side inflation due to the Covid-19 pandemic and the Russian invasion of Ukraine.⁹² Central banks responded by raising interest rates significantly.⁹³ While domestic indirect inflation did emerge (but without turning into large wage-price spirals⁹⁴), many economists argued that, in some countries, inflation was not primarily a result of wage pressure. Economist Isabella Weber, for example,

suggested that recent EU domestic inflation must be understood in the context of "seller-driven inflation", where companies shift a significant cost burden onto consumers by hiking prices to protect or expand their profit margins.⁹⁵ She warned that this was a particular risk when high demand for essential goods, such as food and energy, intersects with supply shortages, providing sellers with considerable pricing power. She and Ivan Wasner found that, in many supply-constrained sectors in the EU and USA, firms had both the incentives and the power to limit supply, thereby boosting or maintaining profits, and that inflation in these countries had been exacerbated by increased corporate pricing power.⁹⁶

As we will explore in this chapter, relying solely on interest rate hikes is not necessarily the best response in such situations. Other tools can more directly address supply-side inflation. In addition, while central banks will always want to slow the economy somewhat during times of high inflation to prevent wage-price spirals from emerging, *excessive* interest rate hikes could make it difficult for governments and businesses to invest to alleviate supply chain disruption, by pushing borrowing costs up to an unnecessarily high level, while having a minimal effect on underlying causes of inflation. While neither central banks nor governments will generally have the tools to fully address supply chain disruption, both must do what they can to help ease problems, both now and to prevent such problems from emerging again in the future.

As an example of the importance of this, NEF analysis highlighted that rising interest rates increased the costs associated with transitioning away from expensive fossil fuels, by making investing in renewables, electrifying transportation, and retrofitting social housing more expensive.^{97,98} Renewables projects require high upfront capital investment,⁹⁹ but they then generate significant savings once in operation (because they free us from purchasing expensive fossil fuels on global markets¹⁰⁰). This higher cost of capital will have impeded the attainment of future price stability, by delaying crucial green investments that would shield us from price shocks in the volatile global fossil fuel market. In 2023, global renewables funds saw record outflows due to rising interest rates and soaring material costs, which squeezed profit margins.¹⁰¹ As another example, in the UK, interest

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rates raising financing costs contributed to a failed offshore wind power provision auction.¹⁰²

In addition, excessively penalising the rest of the economy through very high interest rates can cause a recession, resulting in people becoming unemployed,^{103,104} permanently reducing their life-time earnings^{105,106} and inducing inequality that can persist.¹⁰⁷ Even outside of recessions, raising or lowering interest rates has distributional effects,¹⁰⁸ as different household income groups have different holdings of assets and debt and different exposures to changes in the unemployment rate or wages.

Next, we outline the fiscal policies governments could use to help counteract supply-side inflation and the monetary policies central banks could use so their response is targeted and minimises contradictions with secondary mandates.

3.1 FISCAL POLICIES IN RESPONSE TO HIGH SUPPLY-SIDE INFLATION

A large-scale fiscal stimulus is not an adequate response to any inflationary situation and imported supply-side disruption can be difficult for both governments and central banks to directly address. However, governments may sometimes be in a position to help at least partly resolve these sources of inflation, or address vulnerabilities so they do not reemerge in the future. While any government spending in times of high inflation needs to be very carefully thought through, by taking targeted action governments may enhance productivity and ease supply-side issues, while also potentially having the bonus of tackling broader economic and social challenges, such as the climate crisis. Concerns about the economy overheating due to targeted spending could also be addressed, if necessary, via progressive tax rises. The following strategies are examples of targeted actions that governments could take against causes of current and future supply-side inflation:

- **Addressing supply bottlenecks**¹⁰⁹ is crucial for overcoming challenges in manufacturing caused by problems with global supply chains, trade rules, and climate-related disasters. Bottlenecks create significant constraints in various sectors, as existing suppliers are often unable or unwilling to increase output, and entry for new companies is challenging. The government may be able

to eliminate barriers directly or allocate public resources to incentivise the growth of new producers (public or private) capable of meeting demand. The UK government, for example, took steps in 2021 to address a severe shortage of lorry drivers that was threatening to bring deliveries of key goods to a standstill.¹¹⁰ Steps included allowing more migrant lorry drivers, free intensive training boot camps, and improved roadside facilities. Labour availability can often be a key supply constraint that the government can help address through skills policies and other measures. Meanwhile, investments in renewable energy could, as discussed in Chapter 3, help reduce exposure to future fossil-fuel-driven global price shocks. Similarly, the expansion of social and affordable housing could help alleviate inflationary pressures in the rental sector.¹¹¹ Implementing industrial policies or investments to eliminate production bottlenecks could not only help control inflation and enhance the economy's capacity but also help tackle other societal problems, such as housing crises or climate change.

- **Enhancing emergency storage capacity** for a broader spectrum of commodities would act as a buffer mechanism against geopolitical events. For example, during the recent energy price increases, the European Council agreed to increase gas storage ahead of the next cold season and reduce energy demand.¹¹² Recent debates about strategic autonomy in the EU have suggested stock-piling solar panels in case of increased geopolitical tensions with China, who produce the vast majority of global solar panels.¹¹³
- **Introducing windfall profit taxes**¹¹⁴ can serve as an additional tool, discouraging firms from inflating prices in times of crisis to boost profit margins, thereby reducing the likelihood or severity of price shocks. Both the UK¹¹⁵ and the EU,¹¹⁶ for example, introduced an oil and gas windfall tax in response to the recent energy price crisis.¹¹⁷ Some economists have suggested a "tax on inflation policy",¹¹⁸ where firms pay a tax tied to their price hikes. Modelling found that such a tax would complement monetary policy in mitigating demand shocks and reducing price volatility.¹¹⁹

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- **Using price controls during periods of high inflation.** This could take the form of fiscal policy, where government compensates firms by subsidising them for reduced prices. For example, the UK government subsidised energy companies during the recent energy price crisis to facilitate lower consumer energy prices.¹²⁰ Alternatively, prices could be capped without subsidising suppliers. Spain, for example, capped rent increases during the cost-of-living crisis without providing compensation for landlords.¹²¹ Economists, such as Isabella Weber and Wasner, who (as discussed earlier) argue that the current inflation in the EU and the USA has been exacerbated by increased corporate pricing power, advocate for price controls to curb corporate greed. Opponents of price controls argue that they disrupt market price signals of scarcity and risk causing a misallocation of resources.¹²² Despite these criticisms, there may be situations where price controls are useful, particularly in uncompetitive markets or in markets where high demand for essential goods intersects with supply shortages. In such cases, companies may often have enough market power to excessively push prices upward.
- **Enforcing anti-trust laws¹²³** and designing industrial policies that increase market competition when one or more companies have monopoly or oligopoly power. In these instances, the best response to price increases is for the government to enforce antitrust laws, crack down on illegal price fixing, and use industrial policy to incubate new private businesses in the sector or introduce a public option. These policies can limit price increases while also fostering fair and competitive markets.

3.2 MONETARY POLICIES IN RESPONSE TO HIGH SUPPLY-SIDE INFLATION

To ground inflation expectations, central banks will always want to raise interest rates somewhat to slow the economy during times of high inflation. However, *excessive* interest rate hikes could make it difficult for governments and businesses to invest to alleviate supply chain disruption. Central banks could instead raise interest rates to a sufficient level to prevent wage-price spirals, while at the same time providing less contractionary conditions for necessary supply chain investments. Such

investments could be focused on improving the productive capacity of essential goods and services, and/or in the upgrade of production processes to reduce reliance on scarce materials or energy inputs (eg fossil fuels). These investments could help alleviate sources of inflationary pressure.

While central banks loosening monetary policy for any part of the economy during times of high inflation would be controversial, thus requiring excellent communication from central banks, concerns about the economy overheating from such policies could be addressed, if necessary, with progressive tax rises. Moreover, even if the government did not implement necessary tax changes, it would be worth having slightly higher rates in the rest of the economy, or keeping rates higher for longer, to facilitate addressing supply-side vulnerabilities that are the root causes of inflation (and that could potentially also result in future inflationary episodes). Concerns around central banks taking political distributional decisions and deviating from market neutrality, by favouring some sectors over others, are discussed in Chapter 6.

Tools that would allow a central bank to take a differentiated approach by easing conditions for certain key sectors include the following:

- **Sectoral discount interest rates** or differentiated rates. Central banks could offer an interest rate level that is below its key interest rate for strategic sectors. Reducing borrowing costs for such sectors when interest rates are high could help tackle current or future sources of price instability and also help meet central banks' secondary objectives. For example, in response to the 1974 oil shock, Banque de France offered banks a favourable rediscounting rate (and reserve requirement exemptions) for credit dedicated to energy-efficiency improvements in industrial sectors.¹²⁴ In the contemporary context, it is often proposed that central banks should adopt a "green interest rate" for investments dedicated to the energy transition.^{125,126,127,128} The Bank of Japan, for example, recently re-introduced a preferential interest rate to stimulate green lending by banks.¹²⁹ China has a similar policy,¹³⁰ while French President Emmanuel Macron has called for the European Central Bank (ECB) to take such an approach.¹³¹

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In such cases, countries should ideally have a robust ‘green taxonomy’¹³² in place, to prevent greenwashing.¹³³ Countries without a taxonomy, however, could operate pilot schemes that focus on clear-cut green activities, such as financing renewable energy or home loans for energy efficiency measures, heat pumps, solar panels, etc., although Japan instead scrutinises each bank’s internal green frameworks, and then the banks determine their own qualifying loans.¹³⁴

- **Targeted collateral easing.** Central banks could adjust collateral requirements to facilitate the financing of sectors that could help tackle current or future sources of price instability, and also help meet central banks’ secondary objectives. For example, China’s central bank broadened its collateral rules in 2018 to include green bonds, which reduced costs for issuers.¹³⁵ Such measures potentially encourage banks to lend to projects in target areas, because the central bank guarantees that banks will be able to refinance these loans with fresh liquidity from the central bank.¹³⁶

By expanding acceptable collateral, the central bank could be taking on more risk; however, it is common practice for central banks to buy risky assets to help meet economic challenges.¹³⁷ In response to the 2008–09 financial crisis, for example, the Federal Reserve bought very large quantities of mortgage-backed securities to help stabilise banks and provide liquidity.¹³⁸ Meanwhile, during Covid-19, the ECB eased collateral requirements to improve bank lending and liquidity.¹³⁹

Unfortunately, by expanding acceptable collateral, the central bank is also potentially encouraging commercial banks to do riskier lending. However, one could argue that the large financial risks posed by not adapting to climate change quickly enough¹⁴⁰ would probably outweigh the financial risks introduced by a central bank accepting *slightly* lower credit-rated bonds as collateral (a dramatic loosening of standards is not suggested).

- **Other exemptions and incentives** can be designed to **reduce the tightening effect on specific sectors of the economy**. When the Bundesbank and Banque de France still ran credit ceiling policies, for example, they also applied exemption rules for export credit. Such policies were particularly effective when their economies faced imported inflation shocks, as supporting exports helped minimise the associated trade deficits, and thus helped strengthen currencies.¹⁴¹

Adopting such policies would require the development of new institutional processes to relieve central banks from deciding on political priorities. Careful design of these processes will be crucial to safeguarding central bank independence. We will explore such institutional arrangements in Chapter 6.

4. MONETARY-FISCAL COORDINATION IN TIMES OF EXCESSIVELY LOW INFLATION

The strict separation between monetary and fiscal policy was designed to maximise a central bank's ability to respond to inflationary pressures without political influence. However, inflation may not always be a primary threat to economic stability, as there are times when demand is consistently deficient, and economies are operating well below capacity for a sustained period.

There are two main reasons for coordination in a low-inflation environment. First, the central bank has more room to support its secondary objectives in such a situation (however, doing so requires input from political institutions, as discussed in Chapter 6). Second, when the central bank hits the zero lower bound, the fiscal policy stance becomes an important determinant of the transmission of monetary policy. Typically, a restrictive fiscal policy hampers the transmission of accommodative monetary policy by depressing demand.¹⁴² As a result, the central bank may have to compensate for a too-timid fiscal policy by excessively loosening monetary policy, which can cause unwanted side effects. Quantitative easing (QE), for example, has been criticised for fuelling wealth inequality,¹⁴³ potentially creating asset bubbles,¹⁴⁴ insufficiently boosting demand,¹⁴⁵ and, more recently, creating large losses on central bank balance sheets¹⁴⁶ (Box 1) If fiscal policy better supports monetary policy during times of sustained deficient demand, then more unconventional monetary policy steps may not be required.

4.1 FISCAL POLICIES IN RESPONSE TO LOW INFLATION

A low-inflation, low-interest rate environment should prompt governments to increase borrowing for investment spending, fortify their economies, and build the foundations of long-term prosperity.

- **Investments in education, healthcare, and childcare offer myriad social and economic benefits.** These investments establish the groundwork for a healthier, more productive, and fairer society, ultimately fostering economic growth and stability. For instance, enhancing education not only improves individual learning outcomes but also boosts workforce productivity.¹⁴⁷ A well-educated population is better equipped to adapt to evolving economic demands and drive long-term growth and competitiveness. Similarly, healthcare investments result in healthier populations and increased and improved labour force participation.¹⁴⁸ Additionally, childcare investments aid working families by facilitating parental participation in the labour force, advancing gender equality, and promoting early childhood development,¹⁴⁹ all of which have a positive impact on prosperity and growth.¹⁵⁰
- **Investments in climate solutions improve resilience.** Climate solutions, such as renewable energy production, energy efficiency measures, enhanced public transport, and a strong domestic green tech industry, reduce dependency on fossil fuel imports, making countries more resilient to energy-driven price shocks. Moving away from expensive and volatile fossil fuels towards cheaper and more stable renewable energy will make electricity prices more stable in the medium run.^{151,152} Green investments, including in renewables, are already leading to more affordable consumer energy prices.¹⁵³ Even in the short to medium term, the rapid deployment of renewable energy in Europe between 2021 and 2023 reduced electricity prices by 3%, 8%, and 15% in 2021, 2022, and 2023, respectively.¹⁵⁴

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- In addition, **aligning our economies and societies within planetary boundaries reduces the risks of climate- and biodiversity-related price shocks**, for example, as a result of more frequent wildfires, major floods, and droughts due to climate change. The European Central Bank (ECB) finds that as climate change brings more frequent and more severe weather shocks, the volatility and heterogeneity of inflation may increase and hotter summers may result in more frequent and persistent upward pressures on inflation.¹⁵⁵ Significantly greater public investments for mitigation and adaptation are needed to avert the worst effects of climate change.

Borrowing enables governments to spread investment costs over time, avoiding immediate impacts on tax and spending decisions, and avoiding one generation paying for actions that could yield benefits for multiple generations. Borrowing can be self-sustaining when investing in long-term assets that boost growth over an extended period,¹⁵⁶ such as investment in education, transportation infrastructure, or renewable energy. If the proceeds of borrowing are being invested wisely, therefore, there is no reason to assume that this borrowing will undermine debt sustainability.

In the past, some economists argued that such public spending would crowd out private investment¹⁵⁷ (eg if increased government borrowing pushes up interest rates), leading to no long-term boost to economic activity. The International Monetary Fund (IMF), however, has presented evidence that multiplier effects for certain investments may increase over time, as crowding-out effects wear off and the benefits of the policy are experienced in full.¹⁵⁸ For example, the IMF assumes that infrastructure and green investment multipliers increase for 20 years. Even putting this debate aside, since the 2008 financial crisis most economists now agree that government spending can boost economies during times of reduced economic activity when interest rates are already near zero and crowding out will be minimal.¹⁵⁹

4.2 MONETARY POLICY IN RESPONSE TO LOW INFLATION

Central banks will generally **cut interest rates** in times of sustained deficient demand – sometimes even down to zero or even below. As we have seen, the government should also invest to help avoid economic stagnation and take advantage of a low interest rate period. The central bank, however, may need to further support the economy or help facilitate government action using unorthodox monetary policies, which could also contribute to central banks' secondary objectives. Unorthodox monetary policies include the following:

- **Quantitative easing.** QE is when the central bank buys government and/or corporate bonds. The purchases are primarily in the secondary market, although some corporate QE did involve purchases in the primary market, ie directly from the issuer. QE helps to lower interest rates, and so encourages borrowing and combat deflation. Recent examples of QE are detailed in Chapter 2. QE can require a huge scale of bond purchases to achieve its intended effects on overall financial conditions.¹⁶⁰ While QE has been effective at stabilising financial markets, it suffers from concerns that it creates asset bubbles and market distortions which boost wealth inequality and fail to adequately stimulate demand, despite large sums of money being created.¹⁶¹ It can also risk major financial losses for the central bank (Box 1). Other options may therefore be seen as more effective.
- **Strategic QE or Green QE.** This would direct QE programmes towards specific government objectives, such as boosting investments in the green transition.¹⁶² For example, this could involve purchasing government green bonds, bonds issued by green companies or by public development banks, to fund green infrastructure or social housing. The ECB has already partly adopted this proposal by tweaking the rules of its corporate sector purchase programme (CSPP) in 2021 to tilt purchases towards bonds issued by green companies.¹⁶³ The Bank of England also took steps to green its corporate bond-buying programme.¹⁶⁴

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- **Yield curve control (YCC).** YCC describes a policy where central banks state they will buy or sell government bonds until specific interest rates are achieved. As YCC attempts to target only a specific term interest rate, other term interest rates can be left unaltered. Compared to QE, only small amounts of active buying or selling need to occur for the interest rate change to take effect, as a credible signal of the central bank's intent can in itself move markets towards the target.¹⁶⁵ Notwithstanding, YCC suffers from many of the same drawbacks as QE with regard to limited efficacy at stimulating demand, exacerbating wealth inequality, and causing market distortions (which can be particularly acute). Moreover, YCC can leave a central bank vulnerable to sudden shifts in market conditions, as its commitment to keeping a given bond maturity at a certain interest rate may require large purchases or sales. The Reserve Bank of Australia's disruptive exit from its Covid-19 pandemic-era YCC policy was precipitated by such unforeseen shifts.¹⁶⁶ However, the relatively successful dismounts from YCC by the Federal Reserve after the second world war and more recently by the Bank of Japan in 2024 illustrate that exit risks can be mitigated with sound planning and clear communication of the central bank's intentions and principles.^{167,168}
- **Direct financing of governments or public development banks.** This involves the central bank using newly created money to extend a line of credit or purchasing bonds at the point of issuance (rather than via the secondary market). The Bank of England, for example, extended its overdraft facility for the Treasury during the Covid-19 pandemic.¹⁶⁹ Unlike QE, this approach would be less likely to exacerbate wealth inequalities or create asset bubbles in the capital markets. Moreover, direct financing would be more balance-sheet efficient than QE, requiring a smaller overall level of money creation for the same effect. Central banks, however, deliberately conducted government bond QE through the secondary rather than primary markets, as they wanted to avoid giving the impression they were helping finance governments, which they feared could undermine their perceived separation from political decision-making.¹⁷⁰

While buying bonds or granting loans are reversible forms of central bank financing, a central bank can also *irreversibly* finance the government or a development bank, i.e. without requiring a corresponding asset in return. The biggest barrier to direct financing is the fear that it could undermine central bank independence and un-anchor inflation expectations. Strong institutional arrangements, separations, and communications are thus essential and are discussed further in Chapter 6.

- **Direct transfers to citizens.** This is a policy whereby a central bank would distribute newly created money, not backed by public debt, directly to citizens. For example, the central bank could open an account for each resident and credit it with a certain amount.^{171,172} Central banks have widely refrained from distributing money to citizens, arguing that distributional decisions should be taken by fiscal authorities and parliaments, not central banks (an argument that was notably not applied in the case of QE).¹⁷³ Coordination could overcome the political issues of direct transfers if parliaments and fiscal authorities pre-authorized central banks to make equal lump sum payments to all residents when the circumstances justify doing so.¹⁷⁴ However, to maximise the effect of this policy and more progressively use public money, it would be preferable to target the transfers to lower-income households with larger marginal propensities to consume.¹⁷⁵
- Finally, central banks could also implement **minimum lending ratios or targets**, wherein they impose volume-based targets on banks for lending to specific activities. Minimum lending ratios for priority sectors have in recent years been implemented by the Reserve Bank of India and Bangladesh Bank.^{176,177} In the EU, there has been discussion of mandating a minimum proportion of banks' mortgage portfolios to energy-efficiency renovations.¹⁷⁸ The establishment of bank transition plans could also involve volume-based lending targets.¹⁷⁹ However, minimum lending ratios or targets are typically implemented to address key financing gaps, rather than to boost the economy in times of deficient demand. They also run the risk of encouraging poor lending decisions if banks get worried about missing quotas, meaning sound design and proactive supervision are crucial.

BOX 1: CENTRAL BANK LOSSES

Central banks incur various costs through the implementation of monetary policy, such as via the interest paid on central bank reserves, or through transactions made on open markets. Usually, a central bank's other sources of income can cover these costs. These include seigniorage profits (the difference between the cost of creating cash and its value), regulatory levies imposed on financial market participants, and the interest received on loans and other assets. In normal times, central banks' incomes have outweighed their costs, generating a profit which has often been shared with treasuries.¹⁸⁰

Recently, central banks have responded to high inflation by increasing interest rates. Because many central banks now pay interest on all reserves, which are abundant in the post-QE environment, higher interest rates come at a massive cost. At NEF, we have calculated that these interest payments are worth over £211bn in interest payments between December 2021 and July 2028 to the banking sector in the UK.¹⁸¹ These costs are so great that many central banks cannot cover them with their usual streams of income and are reporting losses.¹⁸²

In some cases, central banks will draw down capital (previously retained profits) to fund their losses, but if losses are large enough a central bank could be left with no capital to draw upon. Fortunately, a central bank's ability to create money means this doesn't matter operationally – money can always be created to meet obligations. However, this can move central banks into a negative capital position.

Despite there being little or no technical argument against it, many central banks have gone to great lengths to avoid leaving themselves with negative capital, citing anticipated impacts on public and political perception.^{183, 184} As negative capital is often sustained through money creation, central bankers may worry it could lead to a loss of control of inflation (whether directly via uncontrolled increases to the money supply, or indirectly via the unmooring of inflation expectations). Yet central banks in Chile, Mexico, and the Czech Republic have operated with negative capital for lengthy periods without losing control of inflation.¹⁸⁵ Regardless, central banks have employed various options to avoid this position.

Currently, the UK is exceptional in requiring its treasury to fund its QE-related losses upfront via an indemnity agreement. In the USA and the ECB, losses are kept on the central bank balance sheet under 'deferred assets' until they are paid off via future profits. These deferred assets essentially act as an accounting trick, keeping track of any losses to be paid back in future before restoring/increasing the capital buffer. However, either case imposes fiscal costs on the government, whether in costly transfers to the central bank now or in foregone profit from the central bank later.

Central bank losses are most likely to arise from policies designed to stimulate demand, as these are times when it makes the most sense for central banks to spend money into the economy. Different policy tools have different implications for central bank losses. For example, QE and YCC occur via asset purchases on secondary markets and therefore these assets can contribute to the income of the central bank. Losses will occur when the interest on these assets is lower than the interest on the liabilities created to fund their purchase (often central bank reserves). Valuation losses can also be made upon the sale or maturity of these bonds. Private markets are likely to exploit opportunities where central banks make large sales/purchases, further exaggerating these losses.

With **direct financing of governments or public development banks**, losses would likely be smaller. Favourable terms could be arranged between the central bank and the government, without losses being exacerbated by the placation of private profit interests. However, **for direct transfers to citizens**, losses would stay on the central bank's balance sheet and could compound. While such transfers could start out as non-interest-bearing liabilities, ie cash, this may end up deposited in banks and converted to central bank reserves. Since there is no corresponding central bank asset, any interest paid on these reserves would create new liabilities without corresponding income, further pushing the central bank into losses and negative equity.

The size of the losses would depend on how much is spent. Some argue that direct monetary financing could have been more effective than the indirect methods used post-financial crisis like QE.¹⁸⁶ Therefore, even though direct transfers are loss-making, the lifetime losses may have been smaller than those resulting from QE, given the smaller scale of the programme required. Similarly, **strategic QE** would likely require a smaller programme than generic QE to achieve the same stimulative effect.

Central banks can address losses via their reserve remuneration policies, such as by requiring banks to hold a certain quantity of reserves that bear no interest. This is described as *tiering reserves* – a policy notably advocated by NEF in the UK¹⁸⁷ and Paul de Grauwe in the eurozone.¹⁸⁸ In fact, in 2023 the ECB's tiered reserve system managed to reduce losses by €5.4bn.¹⁸⁹ Tiered reserves would effectively tighten monetary policy, as banks may seek to maintain profits and pass on the loss of income to customers in the form of lower deposit rates and higher lending rates. Therefore, the adoption of tiered reserves must be coordinated with the setting of the headline interest rate to achieve the overall desired monetary policy stance (ie tightening/loosening financial conditions).

Overall, the losses incurred by monetary policies are a neglected aspect of monetary-fiscal coordination that requires close examination. Alongside appraisal of the profit or loss-making impacts of monetary policy itself, central banks and fiscal authorities must also revisit their conventions for sharing these profits and losses. After all, these are conventions, not economic laws. Moreover, given central banks' macroeconomic stabilising role, it would be a paradox if their accounting fluctuations led to complicate policymaking in the short term. Authorities must make conscious, coordinated decisions about when central banks should create deferred assets or go into negative capital positions vs when fiscal authorities should recapitalise them. These decisions should take into account their economy-wide consequences without allowing either monetary or fiscal priorities to dominate.

5. MONETARY-FISCAL COORDINATION IN TIMES OF HIGH DEMAND-LED INFLATION

In Chapters 3 and 4, we discussed situations where inflation is structurally lower than the central bank target or when the standard interest rate response will struggle to tackle the source of inflation on its own. But what if the central bank faces textbook-style inflation, characterised by demand exceeding supply (often witnessed in an economy operating at full capacity), a wage-price spiral, and unanchored inflation expectations? Here central banks will rightly be expected to raise interest rates, leading to higher borrowing costs for households, businesses, and the government, and ultimately suppressing demand.

But once again, we would argue that the optimal response does not rest only on central banks. A coordinated response with fiscal authorities could deliver superior returns for both price stability and other public priorities, such as employment and the green transition. Meanwhile, in addition to putting up interest rates, central banks could implement a targeted tightening approach whereby it would penalise more abruptly certain sectors that directly cause inflationary pressure.

5.1. FISCAL POLICY IN RESPONSE TO HIGH DEMAND-LED INFLATION

During periods of robust economic activity, fiscal policy assumes a pivotal role in managing inflationary pressures and fostering macroeconomic stability. To reduce demand-led inflation, governments should reduce aggregate demand in the economy. This can be achieved through **reducing government spending** and/or by **increasing taxation**. Decreasing government spending slows economic activity as the government purchases fewer goods and services.

Increasing tax revenues slows economic activity by decreasing individuals' disposable incomes and companies' profits, likely causing them to decrease spending on goods and services. We now briefly outline principles and goals that governments could pursue in times of high demand-fuelled inflation, to help tackle inflation while supporting, or at least not undermining, other government goals.

- **Decrease inequality to improve transmission mechanisms.** A recent quantitative analysis¹⁹⁰ found that income inequality can erode the effectiveness of monetary policy. It can potentially hinder the effectiveness of the transmission mechanism, as wealthier households tend to be less responsive to monetary stimulus in their consumption behaviour. This is due to a surplus of savings, and debt repayments taking up a smaller portion of their income. For example, Cathrine Mann, a member of the Monetary Policy Committee at the Bank of England, has highlighted that it has been harder to curb inflation due to wealthy segments of the population still enjoying extensive discretionary spending, despite higher rates.¹⁹¹
- **Strengthen automatic stabilisers.** Automatic stabilisers are fiscal policies that will automatically have a greater effect during times of strong economic growth or during a recession. They allow the government to naturally expand during low-demand crises and consolidate when the economy is booming. For example, implementing more progressive taxes could moderate consumption during times of high demand-driven inflation (and have the benefit of increasing government revenues to enable good social security provision that provides a boost to the economy in opposite times, when demand is excessively low and an increasing number of people become unemployed).
- **Quality public services mean reduced public spending can temper demand without negative effects.** If significant public investment has already occurred during low-inflation periods, subsequent cuts to public spending during high-demand inflation can temper demand without compromising essential political objectives, like providing quality education and healthcare, and advancing climate action goals.

5.2. MONETARY POLICY IN RESPONSE TO HIGH DEMAND-LED INFLATION

As in Chapter 4, central banks could adopt a differentiated approach, where not all sectors are subject to the same monetary policy response. This time, however, instead of relaxing conditions for certain priority sectors, the central bank could adopt a targeted tightening approach, where it would penalise more abruptly certain sectors that are directly causing inflationary pressure on the economy, or sectors which contribute less to, or even contradict, government priorities. For example, by slowing down the sectors driving inflation more forcefully than those less responsible, the central bank might curb inflation quicker and more efficiently, with the added advantage of imposing more moderate interest rate hikes on the rest of the economy. Alternatively, given the recognition by many governments and central banks of the impact climate change could have on the economy and price stability,¹⁹² it could be appropriate for a central bank to slow down carbon-intensive sectors more rapidly than the rest of the economy during periods of demand-led inflation.

In addition to **raising rates across the economy** to curb demand, here are some tools a central bank could use to implement targeted tightening:

- **Greening the collateral framework.** A central bank could adjust the eligibility rules of its collateral framework to impose limits or exclusions for the most carbon-emitting companies.¹⁹³ This would not only incentivise banks to reduce purchasing bonds issued by these sectors or loans extended to these sectors, but it would also reinforce the central bank's tightening objective, by reducing the pool of assets that banks can use to get liquidity from the central bank. The European Central Bank (ECB) is already taking such an approach, having announced that it will soon limit the amount of collateral it will accept that is associated with carbon-intensive activities.¹⁹⁴ It could go one step further by applying a haircut regime on carbon-intensive assets.¹⁹⁵

Critics of greening collateral frameworks argue that this approach would not be risk-based (and collateral is primarily a risk management tool); however, there are large financial risks associated with climate change.¹⁹⁶ In addition, as discussed in the previous chapter, central banks

already ease collateral requirements during a crisis to improve bank lending and liquidity, which demonstrates that central banks already view their collateral regimes as having a role to play in monetary policy and that they shouldn't necessarily simply reflect the riskiness of individual securities.

- **Green quantitative tightening.** Central banks looking, in response to high inflation, to unwind previous QE by selling off purchased securities in a process known as quantitative tightening, could prioritise selling off more carbon-intensive corporate bonds, if they have accumulated such bonds on their balance sheets (the ECB and Bank of England have, but the FED has not). This would reduce the price of such assets in the secondary market, and so increase financing costs for relevant companies in the primary markets, as what happens in secondary markets affects the attractiveness of those companies' bonds in primary markets.¹⁹⁷ Green quantitative tightening would mirror the actions some central banks have taken (Chapter 3) to green their QE purchases.
- **Credit controls and ceilings.** By limiting (directly or indirectly) the amount of credit that will be extended to certain sectors, central banks could help manage inflation by holding back overly expansionary sectors, while also at times helping to tackle or prevent speculative bubbles. Between 1948 and 1952,¹⁹⁸ and again in 1980,¹⁹⁹ for example, the USA imposed credit controls on consumer credit to combat inflation. The 1948 to 1952 controls specified minimum downpayments and maximum maturities. As another example, the Banque de France operated credit ceilings in 1958–59, 1963–65, and 1968–70, but certain areas were often exempt, including export credit, construction, investment in agriculture, and stockpiling cereals.²⁰⁰ Credit ceilings could prove very useful today in supporting the phasing out of fossil fuels, as illustrated by the Chinese central bank's recent use of credit ceilings on "high pollution, energy consuming and resource dependent industries" between 2006 and 2013.²⁰¹

Credit controls raise concerns about distorting the efficient allocation of resources, and thus reducing overall productivity.²⁰² The USA's credit controls between 1948 and 1952, for example, were criticised for sub-optimally allocating credit,

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although some liked the policy as a longer-term strategy for preventing households from taking on excessive levels of debt.²⁰³ Meanwhile, experiences, such as in the UK during the 1960s, where credit controls were used to try to control overall credit in the economy, had problems with diverting credit to other uncontrolled channels, with authorities sometimes playing a cat-and-mouse game to crack down on these uncontrolled channels.²⁰⁴ If, however, credit ceilings were being used solely for the goal of reducing activity in a few sectors, then diverting bank lending to other sectors would not be a concern. In fact, it could be a bonus. For example, bank lending in the UK is frequently criticised for being overly skewed towards financial and real estate lending, rather than business lending.²⁰⁵ The notion that banks optimally allocate credit when left to their own devices is, thus, questionable.

Another criticism is that tightening domestic bank lending conditions for certain sectors could simply shift corporate financing away from domestic bank lending and towards bond issuance on the international capital markets. Without capital controls regulating the flow of capital in and out of the country, it is argued that international investors become the workaround. This argument is valid; however, large companies already have access to the international capital markets and extensively use them, and as there is not unlimited demand from international investors for company debt, tightening domestic credit for certain business sectors would meaningfully reduce their options. In the UK, for example, bank lending is the source of half of UK companies' debt.²⁰⁶ However, while smaller companies do have non-bank financing options, they are generally more dependent on bank lending than larger companies,²⁰⁷ so it would be important for central banks to consider this. One option would be to make smaller businesses exempt from credit controls or impose reduced controls on them.

Adopting such policies would require the development of new institutional processes to relieve central banks from the responsibility of deciding political priorities. Careful design of these processes is crucial to safeguarding central bank independence. The next chapter explores such institutional arrangements.

6. HOW TO DESIGN GOVERNANCE OF MONETARY-FISCAL COORDINATION

A rich discussion already exists in the literature on how coordination between monetary and fiscal policymakers could take place, including contributions from several senior central bankers and other influential financial policymakers and academics.

For example, former Federal Reserve Chairman, Ben Bernanke, has discussed a mechanism for allowing helicopter money in exceptional circumstances.

*Ask Congress to create, by statute, a special Treasury account at the Fed, and to give the Fed (specifically, the Federal Open Market Committee) the sole authority to “fill” the account, perhaps up to some prespecified limit. At almost all times, the account would be empty; the Fed would use its authority to add funds to the account only when the FOMC assessed that an [Money-financed fiscal program] of specified size was needed to achieve the Fed’s employment and inflation goals. Should the Fed act, under this proposal, the next step would be for the Congress and the Administration—through the usual, but possibly expedited, legislative process—to determine how to spend the funds...*²⁰⁸

Meanwhile, Adair Turner, former Chairman of the British Financial Services Authority, has similarly argued that it’s possible to make institutional changes to manage the risks involved in sometimes allowing monetary financing. In his view, it would be possible to envisage a framework where the Bank of England’s Monetary Policy Committee would be able “to recommend that in order to meet the inflation target in the most effective fashion, there should be a temporary increase in the fiscal deficit financed entirely by permanent central bank money creation.”²⁰⁹

Similarly, the UK’s Fabian Society proposed the creation of an Economic Policy Coordination Committee (EPCC).²¹⁰ This committee would be composed of representatives from a range of economic institutions, including the Treasury, the National Infrastructure Bank, the Office for Budget Responsibility (OBR), and the Confederation of British Industry. The body would not form recommendations but would facilitate a better understanding of needs and concerns among the different bodies and of how policies and objectives interact with each other. It would also be a forum where different bodies could try to persuade each other. Minutes of meetings would be publicly available, to aid accountability.

In a similar vein, Eric Monnet, Professor at the Paris School of Economics, has proposed the establishment of a European Credit Council, under the authority of the European Parliament, to “discuss the now broad implications of monetary policy decisions in Europe and to debate the interpretation of the central banks’ mandate”.²¹¹ One important motivation for establishing it would be to bolster parliamentary deliberations on the course of monetary policy and the interpretation of the European Central Bank (ECB) mandate, in the hope of pre-empting critics of the central bank going to the Court of Justice when they disagree on the use of unconventional monetary policy instruments. It would also help in defining the boundaries of the possible role of the central bank in addressing climate change, and discussing “potential coordination of European policies related to financial issues more generally”, thus providing political cover for the central bank to venture in this direction.

These contributions all propose creating a framework for democratically legitimate institutions to provide input on the central bank’s policy to optimise its distributive effects. This type of coordination enables political institutions to take responsibility for the distributional consequences of policy, by deciding where money should go, while leaving the central bank to decide on the extent to which unconventional instruments should be used, ie the quantity of funds provided. The goal is thus not to interfere with the central bank’s policies, but to address the distributive trade-offs that the central bank itself is not comfortable deciding on.

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Some degree of informal coordination between governments and central banks already occurs within the framework of the EU's Economic and Financial Committee and the Economic Policy Committee, both operating under the Economic and Financial Affairs Council (ECOFIN). However, this coordination is neither explicit nor aimed at achieving specific objectives. It also lacks transparency, taking place behind closed doors without a deliberate, structured framework, highlighting the potential for greater coherence in pursuing monetary and fiscal goals.

In the next sections, we put forward our proposals for what institutional mechanisms could be established in the UK and the EU to systematically optimise the macroeconomic policy mix.

As a minimalist proposal, we argue that clarifying the central banks' secondary mandates would go a long way to enabling central banks to act upon them more forcefully. However, the creation of an independent coordination council would provide a more comprehensive inter-institutional approach to *advise* on coordinating the policy mix. We then discuss whether these options require legislative changes.

6.1 CLARIFYING SECONDARY MANDATES

As introduced in Chapter 2, central banks typically already have secondary mandates to support broader government economic policies. For example, Article 127 (1) of the Treaty on the Functioning of the EU (TFEU) stipulates that “without prejudice to the objective of price stability”, the ECB shall also support the general economic policies in the European Union with a view to contributing to the achievement of the Union's objectives, as laid down in Article 3 of the Treaty on the European Union (TEU).

Accordingly, Article 3(3) of the TEU provides that the EU shall strive for “the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment”.

In theory, the existence of such secondary objectives should be sufficient for a central bank to act upon

priorities other than price stability (while ensuring price stability is still its primary focus and that other actions do not undermine this objective). It should also create political space for stronger cooperation between central banks and the institutions responsible for setting and executing economic policies, such as governments or the European Council. However, most observers would agree that central banks generally have little focus on their secondary objectives.²¹²

This general lack of engagement with secondary objectives has often been explained by their vagueness. In the absence of clear instruction (which is rarely forthcoming), is a central bank supposed to interpret and decide which of a government's many economic policies should be supported? In the words of ECB board member Benoit Cœuré:

Setting priorities between different objectives is what politics is all about. You [parliamentarians] all do it, and it is done by governments that are accountable to parliaments. We in the ECB Governing Council are not equipped to do that. Don't ask us to say whether it is more important to penalise companies that have too high a carbon footprint, to penalise companies that sell arms or to penalise companies that employ children in developing countries.²¹³

Central bankers are naturally reluctant to make such choices, as they don't want to politicise the central bank and so potentially undermine its independence. Moreover, it wouldn't be desirable for central banks to take such decisions – these are decisions that democratically elected governments should take, not technocrats.

Having fewer goals to pursue with decisive and strong policy action would be preferable to a broader set of goals, or vague goals, that would hamper a central bank's ability to act. Thus, it would help if democratic EU institutions put forward a short list of government policy objectives that monetary policymakers could realistically contribute towards. The UK government already effectively does this via annual remit letters. For example, climate change was specified as a priority for the first time in 2021 (while in 2023 it was removed from the priority list).²¹⁴ In the EU, however, such a process is clearly missing.

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A group of experts and former policymakers has suggested delegating the prioritisation of the ECB's secondary mandate to the European Parliament.²¹⁵ The European Parliament's yearly vote on the ECB annual report could help formulate a narrowed-down list of 'general economic policies in the Union', which, as discussed, the ECB should support according to Article 127 of the TFEU.

Professor Alexander Thiele offers an alternative view, where the European Council could exploit its authority under Article 121(2) of the TFEU to "formulate a draft for the broad guidelines of the economic policies of the Member States and of the Union". Such guidelines could be used by the Council to "specify the ECB's contribution to economic policy in the EU through its secondary mandate. (...) for instance the fight against the climate crisis as an objective to be pursued by the ECB as a matter of priority, but also specify the permissible instruments to which the ECB should have recourse in this context."²¹⁶

In a paper by the ECB's Legal Department, the authors recognise the role of the European Parliament and the European Council in clarifying the ECB's secondary mandate. They write:

*Policies that are given priority by the competent institutions should therefore be considered priorities also by the ECB alongside other criteria. (...) any clear prioritisation given by the institutions mentioned above to certain policies and objectives should guide the ECB's priorities.*²¹⁷

Whether the prioritisation is done by the European Parliament, the European Council, or both, we recognise limitations in the abilities of these institutions to produce a meaningful prioritised shortlist of secondary mandates.

First, we see limitations in the abilities of MEPs to build expert knowledge of all the policy trade-offs and sophisticated legal and technical matters at play. Members of Parliaments tend to be generalists, and even those participating in specialist committees, such as the UK's Treasury Select Committee or the European Parliament's ECON Committee, are unlikely to have the time to build the required expertise.²¹⁸ There are also concerns that the Parliament's view on the secondary mandate would be the result of weak compromises

between political groups, subject to shifting political priorities and the balance of power in the European Parliament. In addition, if a government or parliament regularly changes secondary mandate priorities, then this could lead to the central bank devoting resources to developing expertise in a given area one year, only to find this is not relevant to the secondary mandate in the following year, and that it must instead start again and build up expertise in a completely different area. Such volatility would seriously hamper a central bank's ability to act upon its secondary goals.

We equally doubt the capacity of intergovernmental bodies, such as the European Council, to come up with recommendations that would be precise enough and see a risk that such deliberations become negotiation tokens for other issues, especially given the unanimity rule. Moreover, the accountability and transparency of the European Council is notably weak.²¹⁹

In short, clarifying secondary mandates would be a useful step but not a silver bullet. There are inevitable limitations to democratic processes; however, as discussed in the next section, there may be ways to help improve quality, debate, levels of engagement, and transparency in the democratic process. It is also important to make it clear that the primary mandate would have priority for the central bank over any secondary mandate to support broader government policy goals. Just as today, the central bank would retain complete autonomy in making monetary policy decisions, including deciding whether to act upon the possible secondary objectives suggested by political bodies. The central bank would retain the authority to disregard any secondary goal if it felt it would conflict with its price stability mandate (fulfilling secondary mandates could also, in some cases, help achieve primary mandates). It would however be obliged to justify publicly such decisions.

6.2 ENSURING SUFFICIENT FISCAL CAPACITY AND LEGALISING DIRECT FINANCING OF GOVERNMENT SPENDING UNDER CONDITIONS

In the EU, one might question whether fiscal policy is coordinated enough across member states to successfully be coordinated with monetary policy. While effective and rapid policy coordination is less likely to happen if its execution is restricted

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by overly tight fiscal rules, contingent on the adoption of budgetary decisions by all the national parliaments, the greater establishment of EU-level fiscal instruments, such as a joint borrowing capacity, EU-level taxation, and social transfers mechanisms, would greatly aid monetary-fiscal coordination.

Some big steps towards this have already been achieved in recent years. Amid the Covid-19 crisis, the European Commission was authorised to borrow from financial markets for the first time to help fund countries' responses to the resulting economic slowdown. This borrowing allowed the Commission to create the Support to mitigate Unemployment Risks in an Emergency (SURE) fund and the NextGenerationEU fund (NGEU). All member states were eligible for these funds (although not all chose to apply for loans), provided certain criteria were fulfilled. Following the Russian invasion of Ukraine and the fossil fuel price spikes, for example, the NGEU required member states to prioritise investments that met objectives such as energy savings, the diversification of energy supplies, and the accelerated roll-out of renewables.

Such pan-European borrowing and funds could help counteract economic divergences between countries resulting from the monetary union.^{220,221} The NGEU has been found to have helped counteract economic divergences and foster economic stability and growth²²² and real output.²²³ The NGEU will, however, run out in 2026, and with some member states opposed to continuing to issue EU-level debt it is not yet clear whether it will be replaced. If it is not replaced with a new EU instrument that allows member states to continue (or even increase) their public investments, recently agreed fiscal rules will require significant cuts to national budgets.²²⁴ This will limit the extent to which fiscal policy can be used to strengthen economies or help facilitate price stability.

With more economic, price, and social instability likely in the coming years, it is thus paramount that the EU looks towards further developing its fiscal policy architecture. The creation of further central capacity for borrowing would help macroeconomic stabilisation at the national and aggregate level,^{225,226} and could create the necessary fiscal space to ensure member states can increase green public investments sufficiently to meet their

climate mitigation and adaptation objectives. To fund additional EU fiscal capacity, the deployment of new EU-wide taxation measures, such as an EU-wide corporation tax, is being discussed.²²⁷ Other taxes including an EU-wide wealth tax²²⁸ or EU-wide frequent flyer levy²²⁹ should also be considered.

In both the EU and the UK, fiscal rules could be constraining governments' abilities to act, for example, to help tackle potential sources of supply-side inflation to reduce the likelihood of similar cost-of-living crises emerging again in the future. In some situations, minimising debt is the most appropriate priority; however, there are many complex macroeconomic factors behind how much a government can sustainably borrow, and these cannot be captured in a simple ratio between government debt or the deficit and GDP.²³⁰ Fiscal rules are thus a highly imperfect, simplistic tool, that is more politically useful than economically watertight. There are many situations where it would not be economically optimal for a government to be unable to invest to help, for example, resolve a supply-side crisis or improve economic resilience to climate change.

To complement expanded fiscal capacity, legislative changes could allow central banks to directly finance government spending under strict conditions. Many central banks are legislatively prohibited from direct financing of government spending. This is the case for the ECB (Art. 123 TFEU), but not for the Bank of England that, for example, has the ways and means facility, an overdraft facility for the UK government (although this is an example of reversible not irreversible financing). As explored in Chapters 2 and 4, there are many reasons to be wary of central banks directly financing governments (either reversibly or irreversibly). However, rather than banning the practice outright, it should be possible to build sufficient institutional checks and safeguards into the system to enable even irreversible financing to be used in cases when it is not only appropriate but also desirable, such as during times of sustained excessively weak demand, low inflation, and where interest rates are already at or near zero. Specifying the inflationary conditions under which such schemes could be activated would be less prone to potential abuse than saying it could be used in times of crisis, which is vague.

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While legislative change in a single country parliament would be relatively straightforward, Treaty change in the EU is notoriously difficult. However, it is not impossible, with crises often providing such opportunities.

Legislation could also be amended, where necessary, to allow central banks to directly (reversibly or irreversibly) finance independent public investment banks, which may come with fewer risks than financing a government. Unlike other policies central banks have pursued to support the private sector, such as corporate QE, financing a public investment bank that in turn lends to strategic parts of the private sector, would also mean the central bank (and the government) wouldn't have to pick the specific companies that benefit.

6.3 ESTABLISHING AN ECONOMIC COORDINATION COUNCIL (ECC)

Clarifying and prioritising central bank secondary mandates would go a long way towards empowering central banks to consider a broader set of considerations than price stability alone. However, as discussed in the previous section, and as demonstrated by the UK, where the Bank of England already receives annual remit letters, by itself it does not guarantee strong monetary-fiscal coordination. For example, the impact of QE on the UK government's balance sheet through the indemnity provided to the Bank of England appears to only very recently be getting the attention it deserves (thanks to large losses materialising). The arrangement should have been properly thought through and scrutinised from the offset. Moreover, as discussed in Chapter 2, there are many other examples of poor monetary-fiscal coordination in the UK.

To help mitigate such limitations and risks, we suggest the creation of an independent and deliberative *advisory* board, called, say, the Economic Coordination Council (ECC).

Mission of the ECC

This independent council would create a deliberative forum to analyse the monetary and fiscal policy mix, detect policy challenges or contradictions, and explore under-exploited opportunities to improve economic coordination

and outcomes. It would provide *recommendations* to the government or, in the EU context, to the European Commission and the European Council or parliament, on the central bank's secondary mandate (so helping to overcome some of the problems flagged in the previous section) and on other aspects of monetary and fiscal coordination.

For example, it could issue a shared analysis of the current economic outlook, and subsequent *advice* on how policymakers (both monetary and fiscal) could better align their policies and achieve shared goals. Importantly, the ECC could flag when governments or central banks are missing key opportunities to coordinate, or even taking actions contrary to monetary-fiscal coordination. It could also inform parliament about political or legislative barriers to better monetary-fiscal coordination.

The ECC could also *recommend* how objectives could be well implemented, which could help give the central bank political cover for controversial decisions. For example, the ECC's advice would be extremely useful where the law is subject to different interpretations, as is notoriously the case with the "principle of an open market economy with free competition" that is enshrined in the EU's Treaty (Art. 127 TFEU). Had the ECC existed 10 years ago, it could have issued recommendations on the "issuer limits" that the ECB self-imposed (and changed repeatedly) to avoid QE being perceived as monetary financing of government debts (which, resulted in a legal case at the German Constitutional Court²³¹). Looking forward, the ECC's advice on whether and how a green interest rate could be implemented could prove very valuable, especially for countries that do not have a green taxonomy.

The ECC could also play a crucial role in advising governments on fiscal policy. For instance by identifying situations where it would be economically suboptimal for governments to refrain from investing in addressing critical challenges, such as resolving supply-side crises or enhancing resilience to climate change. The ECC could also provide guidance on how to allocate proceeds from monetary financing, whether for one-off investments in infrastructure and long-term projects, direct 'helicopter money' transfers to citizens, or a combination of both. While long-term investments are typically more advantageous

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for sustained economic growth, there may be circumstances where an immediate consumption stimulus is necessary to avert a recession, and the ECC could help determine the most effective approach for each context.

Neither the central bank nor the executive branches of government (or the EU executive) would be required to implement the ECC's recommendations; the autonomies of both should be maintained. However, if they choose not to implement the ECC's recommendations, they should be required to explain their reasoning publicly, for example when testifying to parliamentary hearings or in their annual reports, thereby increasing transparency and accountability. The reasons invoked could be anything, from the risk of jeopardising price stability to a lack of resources or expertise.

Membership composition and inter-institutional embedding

There are key ingredients to ensure the success of the ECC. First, it would require relevant expertise and active (perhaps time-intensive) participation. Second, it would need a diversity of thoughts, backgrounds, and deliberative procedures. Third, and perhaps most importantly, it would require institutional buy-in by existing bodies, to ensure that the ECC's recommendations are not immediately ignored.

The ECC would thus need to be composed of a mix of independent (ie not from the central bank, the government, or other policymaking institutions) experts from a wide range of policy areas. As pointed out by Smole ska (2023):

The interinstitutional accountability literature emphasises that deliberation achieves best results when the parties involved are "sufficiently distinct." This means that even largely technocratic deliberation should ensure that the economic policy take on credit policy is challenged from the perspective of other fields such as climate science or other social sciences.²³²

From this perspective, it's clear that the range of expertise should go beyond banking, fiscal policy, and monetary policy. For instance, the involvement of climate and social policy experts seems logical.

The mandate of the members should run for several years and be renewed sequentially, to ensure continuity of the work of the ECC.

The deliberations should be organised to favour not only open criticism but also mutual understanding. Thus, the members of the ECC should be entitled and encouraged to request hearings and extensive conversations with various policymaking institutions' representatives. Representatives from policymaking bodies should frequently provide input, present their institution's economic analysis, and answer questions from the expert members. It is also key that each of these institutional perspectives would be challenged in light of other institutional perspectives.

Where appropriate, the ECC, while composed of independent experts, could be hosted within existing institutional bodies, to increase the likelihood that institutions pay attention to recommendations. In the EU context, for example, the ECC could be hosted by the European Parliament, which would provide for the ECC's secretariat and budget instead of the existing monetary expert panel.²³³ This panel of experts was set up by the ECON committee to provide advice to MEPs on matters related to central banking ahead of the quarterly hearings of the ECB President (the so-called Monetary Dialogue), but its impact has often been questioned.

All relevant decision-making bodies (eg in the EU context, the Council, Eurogroup, and the European Commission) should formally recognise the existence of the ECC and commit to contributing to its work and carefully considering its recommendations. Other ways to achieve political buy-in could include giving each policymaking institution responsibility for directly appointing a subset of the ECC's expert members. They could also each appoint one of their own representatives as co-chair of the ECC, so they have skin in the game and a first-hand understanding of the work in progress in the ECC, and be well-placed to transmit the ECC's conclusions back to their respective institutions. These co-chairs would act as conveners and witnesses of the deliberations, but would not be involved in the deliberations themselves or in proposing recommendations, and they would not have voting powers.

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As with any independent public body, the ECC should be accountable to parliament, such as by being available to give evidence and explain reasoning and decisions to relevant parliamentary committees.

Finally, the ECC must be properly resourced. For example, the UK's OBR's committee and advisory board do not contain Treasury representatives. However, there have been concerns about the OBR sometimes relying on support from Treasury civil servants, because of minimal resources.²³⁴ Its macroeconomic model was also inherited from the Treasury, and it is often staffed by former Treasury civil servants.²³⁵ These concerns illustrate the importance of having as full a separation as possible and the importance of properly resourcing such a body (which treasuries will inevitably control). For example, enough time and resources should be allocated so members can build up the required knowledge outside their specialist areas.

7. CONCLUSION

The role of central banks in the economy is not fixed; it evolves in response to changing contexts and new challenges. In recent decades, strict independence has been prioritised, with central banks focused primarily on price stability. Closer coordination between governments and central banks can deliver price stability, economic development and progress, sustainable public finances, and future-oriented investments. This is not just a lesson of the past; recent supply-side shocks have highlighted the critical role of monetary-fiscal coordination in ensuring price stability. Looking ahead, economic challenges posed by climate change as well as greater geopolitical risks make such alignment even more essential.

The aftermath of the 2008 financial crisis saw central banks take on expanded roles, deploying unorthodox tools and interpreting their mandates more broadly. As we face unprecedented challenges like climate change, economic shocks, and strained public services, it is essential to rethink and optimise the relationship between fiscal and monetary authorities, rather than allowing it to evolve reactively and inefficiently.

There is also a political imperative to do so. Inflation has become a decisive issue for elections and political stability. Rising prices, particularly in essentials such as food, energy, and housing, have a direct and visible impact on voters' everyday lives. Public dissatisfaction with inflation often erodes trust in the government, making it a key battleground in electoral contests. Governments that fail to address inflation risk empowering extremist movements, which exploit economic grievances to gain support by offering simplistic and divisive solutions. Ensuring price stability through monetary-fiscal coordination is therefore not just an economic imperative but also a political necessity to maintain democratic legitimacy and counter the rise of extremist forces.

As we have shown in this paper, effective monetary-fiscal coordination is critical to addressing today's pressing issues, whether it's tackling supply-driven inflation, enhancing resilience to future crises, or advancing climate goals. The tools available to central banks and governments must be tailored to the specific economic context. For example, during deflationary periods, governments can leverage low interest rates for public investment, while central banks can deploy quantitative easing (QE) or even direct financing of strategic investments. In contrast, during inflation driven by supply constraints, governments should address bottlenecks and invest in long-term solutions, while central banks can adopt targeted measures to ensure price stability without stifling growth. Similarly, during demand-driven inflation, progressive taxation and sector-specific tightening can be deployed to cool the economy while preserving critical investments in public goods and climate resilience.

A governance framework that fosters coordination while preserving democratic mandates and central bank independence is not only feasible but also urgently needed. Governments should provide clear guidance on how central banks can support broader policy goals without compromising their primary price stability mandate. Furthermore, an independent advisory body – such as the proposed Economic Coordination Council (ECC) – could help bridge the gap between monetary and fiscal authorities by identifying policy contradictions, offering evidence-based recommendations, and increasing transparency and accountability in decision-making.

The ECC would provide a neutral forum for expert advice, ensuring that governments and central banks were better equipped to coordinate their actions in pursuit of shared objectives. By flagging missed opportunities, addressing legal and institutional barriers, and offering public recommendations, the ECC could foster more effective and accountable policymaking. Its success would depend on meaningful engagement from all key institutions, supported by mechanisms to ensure buy-in and cooperation without undermining their autonomy.

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The challenges ahead demand a unified approach. Whether it's combating inflation, mitigating climate change, or safeguarding economic stability, coordination between fiscal and monetary policy is no longer optional – it is imperative for ensuring resilient and inclusive economies that can withstand the crises of today and tomorrow.

ENDNOTES

- 1 Mang, S., & Caddick, D. (2024). *Navigating constraints for progress: Examining the impact of EU fiscal rules on social and green investments*. New Economics Foundation and European Trade Union Confederation. <https://www.etuc.org/en/publication/navigating-constraints-progress-examining-impact-eu-fiscal-rules-social-and-green>
- 2 Weber, I. (2025). The government that survived inflation – A policy toolkit to tame prices – and win elections. *Foreign Affairs*. <https://www.foreignaffairs.com/mexico/governments-survived-inflation>
- 3 Summers, L. (2013). *Speech. IMF Fourteenth Annual Research Conference in Honor of Stanley Fischer*. <http://larrysummers.com/imf-fourteenth-annual-research-conference-in-honor-of-stanley-fischer/>
- 4 Mang, S., & Caddick, D. (2024). *Navigating constraints for progress: Examining the impact of EU fiscal rules on social and green investments*. New Economics Foundation and European Trade Union Confederation. <https://www.etuc.org/en/publication/navigating-constraints-progress-examining-impact-eu-fiscal-rules-social-and-green>
- 5 Council of Economic Advisors. (2022). *The rising costs of extreme weather events*. *The White House*. <https://www.whitehouse.gov/cea/written-materials/2022/09/01/the-rising-costs-of-extreme-weather-events/>
- 6 Kotz, M., Kuik, F., Lis, E., & Nickel, E. (2024). Global warming and heat extremes to enhance inflationary pressures. *Communications Earth & Environment*, 5, 116. <https://www.nature.com/articles/s43247-023-01173-x>
- 7 de Boer, N., Grunewald, S. N., & van't Klooster, J. (2024). *The law and politics of independent policy coordination: fiscal and sustainability considerations in the European Central Bank's monetary policy*. European Banking Institute. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4827387
- 8 Dafermos, Y., Kriwoluzky, A., Vargas, M., Volz, U., & Wittich, J. (2021). *The price of hesitation*. *Greenpeace Germany; the German Institute for Economic Research; and the Centre for Sustainable Finance at SOAS, University of London*. https://eprints.soas.ac.uk/35496/1/The%20Price%20of%20Hesitation_FINAL-New.pdf
- 9 Destek, M. A., & Koxsel, B. (2019). Income inequality and financial crisis: Evidence from the bootstrap rolling window. *Financial Innovation*, 21(5). <https://doi.org/10.1186/s40854-019-0136-2>
- 10 Begg, I., Mushövel, F., & Niblett, R. (2015). *The welfare state in Europe: Visions for reform*. *Chatham House*. <https://www.chathamhouse.org/sites/default/files/publications/research/20150917WelfareStateEuropeNiblettBeggMushovelFinal.pdf>
- 11 Owen, G. (2012). *Industrial policy in Europe since the second world war: What has been learnt?* *European Centre for International Political Economy*. <https://ecipe.org/wp-content/uploads/2014/12/OCC12012-revised.pdf>
- 12 Patel, I. G. (1953). *Monetary policy in postwar years*. *International Monetary Fund*. <https://www.elibrary.imf.org/view/journals/024/1953/001/article-A003-en.xml>
- 13 Epstein, G. (2006). *Central banks as agents of economic development*. UNU-WIDER. <https://www.wider.unu.edu/sites/default/files/rp2006-54.pdf>
- 14 Ryan-Collins, J., & van Lerven, F. (2018). *Bringing the helicopter to ground: A historical review of fiscal-monetary coordination to support economic growth in the 20th century*. [Working Paper IIPP WP 2018-08]. *Institute for Innovation and Public Purpose UCL*. <https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/iipp-wp-2018-08.pdf>
- 15 Monnet, E. (2018). *Controlling credit: Central banking and the planned economy in postwar France, 1948–1973*. 1st edn. *Cambridge University Press*. <https://doi.org/10.1017/9781108227322>
- 16 Bartsch, E., Bénassy-Quéré, A., Corsetti, G., & Debrun, X. (2020). *It's all in the mix how monetary and fiscal policies can work or fail together*. *Centre for Economic Policy Research*. <https://www.cimb.ch/uploads/1/1/5/4/115414161/geneva23.pdf>
- 17 Schuknecht, L. (2022). *Public debt – The EU perspective*. CESifo Forum. <https://www.cesifo.org/DocDL/CESifo-Forum-2022-1-schuknecht-public-debt-eu-january.pdf>
- 18 Ryan-Collins, J., & van Lerven, F. (2018). *Bringing the helicopter to ground: A historical review of fiscal-monetary coordination to support economic growth in the 20th century*. [Working Paper IIPP WP 2018-08]. *Institute for Innovation and Public Purpose UCL*. <https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/iipp-wp-2018-08.pdf>
- 19 Reinhart, C. M., & Sbrancia, M. B. (2015). *The liquidation of government debt*. IMF. <https://www.imf.org/external/pubs/ft/wp/2015/wp1507.pdf>
- 20 Federal Reserve Bank of St. Louis (2014). *The gold standard and price inflation*. <https://www.stlouisfed.org/on-the-economy/2014/august/the-gold-standard-and-price-inflation>
- 21 Garber, P. (1993). *The collapse of the Bretton Woods fixed exchange rate system*. *University of Chicago Press*. <https://www.nber.org/system/files/chapters/c6876/c6876.pdf>
- 22 Ocampo, J. A. (2017). *A brief history of the International Monetary System since Bretton Woods*. *Oxford Scholarship Online*. <https://academic.oup.com/book/9072/chapter/155608236>
- 23 Macalister, T. (2011, March 3). Background: What caused the 1970s oil price shock? *The Guardian*. <https://www.theguardian.com/environment/2011/mar/03/1970s-oil-price-shock>
- 24 Weston, T. (2024). *The UK economy in the 1970s*. *House of Lords Library*. <https://lordslibrary.parliament.uk/the-uk-economy-in-the-1970s>
- 25 Federal Reserve History. *The great inflation*. *Federal Reserve History*. <https://www.federalreservehistory.org/essays/great-inflation>

HOW DO YOU SOLVE A PROBLEM LIKE INFLATION? THE CASE FOR MONETARY-FISCAL COORDINATION

- 26 Tomlinson, J. (2014). British government and popular understanding of inflation in the mid-1970s. *The Economic History Review*, 67(3), 750–768. <https://www.jstor.org/stable/42921776>
- 27 Unionhistory.info. (n.d.). *Anti-Union legislation 1980-2000*. http://www.unionhistory.info/timeline/1960_2000_Narr_Display.php?Where=NarTitle+contains+%27Anti-Union+Legislation%3A+1980-2000%27 [accessed 15 February 2025].
- 28 Rowthorn, R. (2024). The conflict theory of inflation revisited. *Review of Political Economy*, 36(4), 1302–1313. <https://www.tandfonline.com/doi/pdf/10.1080/09538259.2024.2332297>
- 29 Edwards, P., Baden-Fuller, C., Pissarides, C., Rubery, J., Crouch, C., & Taylor-Gooby, P. (2023). Inflation, wages and equality: cross-disciplinary conversations. *Journal of the British Academy*, 11, 25–41. <https://www.thebritishacademy.ac.uk/documents/4652/JBA-11-p025-Edwards-et-al.pdf>
- 30 Wachtel, P., & Blejer, M. I. (2020). A fresh look at central bank independence. *Cato Journal*, 40(1). <https://www.lse.ac.uk/iga/assets/documents/research-and-publications/Rockefeller-Project/Paul-Wachtel-Mario-Blejer-A-fresh-look-at-central-bank-independence.pdf>
- 31 Motyovszki, G. (2013). *The evolution of Phillips curve concepts and their implications for economic policy*. Central European University. https://me.eu.eu/wp-content/uploads/sites/226/2016/12/histecon_termpaper-evolution-of-Phillips-curve-Motyovszki.pdf
- 32 Dall'Orto Mas, R., Vonessen, B., Fehlker, C., & Arnold, K. (2020). *The case for central bank independence*. ECB. <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op248~28bebb193a.en.pdf>
- 33 Wachtel, P., & Blejer, M. I. (2020). A fresh look at central bank independence. *Cato Journal*, 40(1). <https://www.lse.ac.uk/iga/assets/documents/research-and-publications/Rockefeller-Project/Paul-Wachtel-Mario-Blejer-A-fresh-look-at-central-bank-independence.pdf>
- 34 Jacobs, M., Calvert Jump, R., Michell, J., & van Lerven, F. (2023). In tandem. The case for coordinated Economic Policymaking. *Fabian Special*. <https://fabians.org.uk/wp-content/uploads/2023/11/FABP10475-Tract-Special-231107-WEB.pdf>
- 35 De Haan, J., & Eijffinger, S. (2016). *The politics of central bank independence*. *CentER Discussion Paper Series*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2887931
- 36 European Central Bank. (n.d.). *Independence*. ECB. <https://www.ecb.europa.eu/ecb/orga/independence/html/index.en.html#:~:text=The%20Eurosystem%20is%20functionally%20independent,and%20when%20to%20use%20them> [accessed 15 February 2025].
- 37 Ryan-Collins, J., & van Lerven, F. (2018). *Bringing the helicopter to ground: A historical review of fiscal-monetary coordination to support economic growth in the 20th century*. [Working Paper IIPP WP 2018-08]. Institute of Innovation and Public Purpose UCL. <https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/iipp-wp-2018-08.pdf>
- 38 Wachtel, P., & Blejer, M. I. (2020). A fresh look at central bank independence. *Cato Journal*, 40(1). <https://www.lse.ac.uk/iga/assets/documents/research-and-publications/Rockefeller-Project/Paul-Wachtel-Mario-Blejer-A-fresh-look-at-central-bank-independence.pdf>
- 39 Federal Reserve History. (n.d.). *The Treasury-Fed Accord*. <https://www.federalreservehistory.org/essays/treasury-fed-accord> [accessed 15 February 2025].
- 40 Wachtel, P., & Blejer, M. I. (2020). A fresh look at central bank independence. *Cato Journal*, 40(1). <https://www.lse.ac.uk/iga/assets/documents/research-and-publications/Rockefeller-Project/Paul-Wachtel-Mario-Blejer-A-fresh-look-at-central-bank-independence.pdf>
- 41 Oercommons.org. (n.d.). *How the US and other countries experience inflation*. [oercommons.org. https://oercommons.org/courseware/lesson/28815/student-old/?task=3](https://oercommons.org/courseware/lesson/28815/student-old/?task=3) [accessed 15 February 2025].
- 42 Forbes, K. J. (2019). *Has globalization changed the inflation process?* [Working Paper No. 791]. Bank for International Settlements. <https://www.bis.org/publ/work791.pdf>
- 43 Lv, L., Liu, Z., & Yingying X. (2019). Technological progress, globalization and low-inflation: Evidence from the United States. *PLoS ONE*, 14. <https://doi.org/10.1371/journal.pone.0215366>
- 44 Brzoza-Brzezina, M., Kolasa, M., & Bielecki, M. (2019). *The impact of population ageing on monetary policy*. VoxEU. <https://cepr.org/voxeu/columns/impact-population-ageing-monetary-policy>
- 45 Bradfield, M. (1992). Chapter 13 Deregulation of banking: A worldwide phenomenon. In R.C. Effros (Ed), *Current legal issues affecting central banks, Volume I*. IMF. <https://www.elibrary.imf.org/display/book/9781557751423/ch13.xml>
- 46 Aklin, M., & Kern, A. (2021). The side effects of central bank independence. *American Journal of Political Science*, 65(4), 971–987. <https://www.jstor.org/stable/45415730>
- 47 Federal Deposit Insurance Corporation (FDIC). (1997). *History of the eighties: Lessons for the Future*. Vol. 1, *An examination of the banking crises of the 1980s and early 1990s*. Washington, DC: FDIC. https://www.fdic.gov/bank/historical/history/3_85.pdf
- 48 Eijffinger, S., & Pieterse-Bloem, M. (2023). *Eurozone government bond spreads: A tale of different ECB policy regimes*. *Journal of International Money and Finance*, 139, 102965. <https://www.sciencedirect.com/science/article/pii/S0261560623001663>
- 49 Steffen, S., Borchert, L., Jager, M., & Acharya, V. (2020). *Euro area bank bailout policies after the global financial crisis sowed seeds of the next crisis*. VoxEU. <https://cepr.org/voxeu/columns/euro-area-bank-bailout-policies-after-global-financial-crisis-sowed-seeds-next-crisis>
- 50 Bacchetta, P., Perazzi, E., & Wincoop, E. (2018). Self-fulfilling debt crises: What can monetary policy do? *Journal of International Economics*, 110, 119–134. <https://www.sciencedirect.com/science/article/abs/pii/S0022199617301381>
- 51 Fontan, C. (2018). 'Frankfurt's double standard: The politics of the European Central Bank during the eurozone crisis'. *Cambridge Review of International Affairs*, 31, 162–182. <https://doi.org/10.1080/09557571.2018.1495692>

HOW DO YOU SOLVE A PROBLEM LIKE INFLATION? THE CASE FOR MONETARY-FISCAL COORDINATION

- 52 Fontan, C. (2018). Frankfurt's double standard: The politics of the European Central Bank during the eurozone crisis. *Cambridge Review of International Affairs*, 31, 162–182. <https://www.tandfonline.com/doi/full/10.1080/09557571.2018.1495692#d1e380>
- 53 Wanke, S. (2017). *Five years of 'whatever it takes': Three words that saved the euro*. KfW Research – Economics in Brief. https://www.kfw.de/PDF/Download-Center/Konzernthemen/Research/PDF-Dokumente-Volkswirtschaft-Kompakt/One-Pager-2017-EN/VK-No.-139-July-2017-Whatever-it-takes_EN.pdf
- 54 Sapir, A. (2012). The SMP is dead. Long live the OMT. *Bruegel*. <https://www.bruegel.org/blog-post/smp-dead-long-live-omt>
- 55 Caddick, D. (2023). *A decade of austerity and growing national debt: Why we need to reform the OBR*. New Economics Foundation. <https://neweconomics.org/2023/09/obr-reform>
- 56 Fatás, A., & Summers, L. (2017). The permanent effects of fiscal consolidations. *Journal of International Economics*, 112, 238v250. <https://doi.org/10.1016/j.jinteco.2017.11.007>
- 57 Oxfam Briefing. (2013). *A cautionary tale – the true cost of austerity and inequality in Europe*. Oxfam. https://www-cdn.oxfam.org/s3fs-public/file_attachments/bp174-cautionary-tale-austerity-inequality-europe-120913-en_1_1.pdf
- 58 Rajan, R. G. (2017). Was unconventional monetary policy a success? *Chicago Booth Review*. <https://www.chicagobooth.edu/review/was-unconventional-monetary-policy-success>
- 59 Schnabel, I. (2024). Reassessing monetary policy tools in a volatile macroeconomic environment. *25th Jacques Polak Annual Research Conference, Washington*. <https://www.ecb.europa.eu/press/key/date/2024/html/ecb.sp241114~af51032e63.en.html>
- 60 Kloosterman, R., Bonam, D., & van der Veer, K. (2022) *The effects of monetary policy across fiscal regimes*. SSRN Scholarly Paper. <https://doi.org/10.2139/ssrn.4300338>
- 61 Senni, C. C., & Monnin, P. (2020). *Central bank market neutrality is a myth*. Council on Economic Policies. <https://www.cepweb.org/central-bank-market-neutrality-is-a-myth>
- 62 Smith, C. (2021). *Quantitative easing*. House of Lords Library. <https://lordslibrary.parliament.uk/quantitative-easing/>
- 63 Galema, R., & Lugo, S. (2021). When central banks buy corporate bonds: Target selection and impact of the European Corporate Sector Purchase Program. *Journal of Financial Stability*, 54, 100881. <https://www.sciencedirect.com/science/article/pii/S1572308921000413>
- 64 European Council. (2020). *Report on the comprehensive economic policy response to the Covid-19 pandemic*. European Council. <https://www.consilium.europa.eu/en/press/press-releases/2020/04/09/report-on-the-comprehensive-economic-policy-response-to-the-covid-19-pandemic/>
- 65 VOA News. (2020). *Eurogroup Strikes Half-Trillion Euro Deal to Help Members Cope with Covid-19*. VOA News. https://www.voanews.com/a/science-health_coronavirus_outbreak_eurogroup-strikes-half-trillion-euro-deal-help-members-cope/6187306.html
- 66 Brien, P., & Keep, M. (2023). *Public spending during the Covid-19 pandemic*. House of Commons Library. <https://researchbriefings.files.parliament.uk/documents/CBP-9309/CBP-9309.pdf>
- 67 European Central Bank. (n.d.). *Our response to the coronavirus pandemic*. ECB. <https://www.ecb.europa.eu/home/search/coronavirus/html/index.en.html> [accessed 15 February 2025].
- 68 European Central Bank. (2020). *ECB recalibrates targeted lending operations to further support real economy*. ECB. <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200430~fa46f38486.en.html>
- 69 European Central Bank. (2020). *ECB announces package of temporary collateral easing measures*. ECB. <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200407~2472a8ccda.en.html>
- 70 Bank of England. (2020). *Term Funding Scheme with additional incentives for SMEs (TFSME) – Market Notice*. Bank of England. <https://www.bankofengland.co.uk/markets/market-notices/2020/term-funding-scheme-market-notice-mar-2020>
- 71 Bank of England. (2020). *Bank of England announces supervisory and prudential policy measures to address the challenges of Covid-19*. Bank of England. <https://www.bankofengland.co.uk/news/2020/march/boe-announces-supervisory-and-prudential-policy-measures-to-address-the-challenges-of-covid-19>
- 72 Stubbington, T., & Giles, C. (2021). Investors sceptical over Bank of England's QE programme. *Financial Times*. <https://www.ft.com/content/f92b6c67-15ef-460f-8655-e458f2fe2487>
- 73 Wolf, M. (2023). Philip Lane: We haven't seen "normal" in Europe for a long time. *Financial Times*. <https://www.ft.com/content/8ff6550e-6a58-4c7b-8be9-2c3c07dfd531>
- 74 Martin, K. (2022). Markets will test the ECB's resolve. *Financial Times*. <https://www.ft.com/content/a9851c45-f2bb-4e00-9a8a-000038308f0e>
- 75 Arnold, M. (2022). Spread betting: How will the ECB's new bond-buying tool work? *Financial Times*. <https://www.ft.com/content/c5499acd-0271-458d-8363-9e75633399ee>
- 76 European Central Bank. (n.d.). *Climate change and the ECB*. ECB. <https://www.ecb.europa.eu/ecb/climate/html/index.en.html> [accessed 15 February 2025].
- 77 Bank of England. (n.d.). *Climate change*. Bank of England. <https://www.bankofengland.co.uk/climate-change> [accessed 15 February 2025].
- 78 Bank of England. *Greening our Corporate Bond Purchase Scheme (CBPS)*. <https://www.bankofengland.co.uk/markets/greening-the-corporate-bond-purchase-scheme> [accessed 15 February 2025].
- 79 European Central Bank. (2022). *ECB takes further steps to incorporate climate change into its monetary policy operations*. ECB. <https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220704~4f48a72462.en.html>
- 80 European Central Bank. (2022). *ECB takes further steps to incorporate climate change into its monetary policy operations*. ECB. <https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220704~4f48a72462.en.html>

HOW DO YOU SOLVE A PROBLEM LIKE INFLATION? THE CASE FOR MONETARY-FISCAL COORDINATION

- 81 Arnold, M. (2022). ECB warns banks of capital hit if they fail to tackle climate risk. *Financial Times*. <https://www.ft.com/content/7a1543c1-57f0-492f-b0e7-fae81f8e57ea>
- 82 Bank of England. (2024). *Updates to eligibility of residential mortgage collateral in the Sterling Monetary Framework to reflect the domestic minimum energy efficiency standard (MEE) regulation*. Bank of England. <https://www.bankofengland.co.uk/markets/market-notices/2024/may/updates-to-eligibility-of-residential-mortgage-collateral-in-the-smf-market-notice>
- 83 Cochrane, J. H. (2020). *Central banks and climate: A case of mission creep*. Hoover Institution. <https://www.hoover.org/research/central-banks-and-climate-case-mission-creep>
- 84 Cochrane, J. H. (2024). *Central bankers can be too independent*. *The Grumpy Economist*. <https://www.grumpy-economist.com/p/central-bankers-can-be-too-independent>
- 85 House of Lords. (2023). *Making an independent Bank of England work better*. House of Lords. <https://committees.parliament.uk/publications/42289/documents/210852/default/>
- 86 Harris, T. (2023). *It's time for interest rates to go green*. *New Economics Foundation*. <https://neweconomics.org/2023/11/its-time-for-interest-rates-to-go-green>
- 87 Reclaim Finance. (2024). *Greening the Eurosystem collateral framework*. Reclaim Finance. <https://reclaimfinance.org/site/en/2024/01/12/greening-the-eurosystem-collateral-framework/>
- 88 Phillips, T. (2023). *What are climate-adjusted capital requirements?* *Green Central Banking*. <https://greencentralbanking.com/2023/02/21/climate-adjusted-capital-requirements>
- 89 Kaczmarczyk, P. (2022). *Interest rate hikes are not the answer to Europe's inflation problem*. *EUROPP, London School of Economics*. <https://blogs.lse.ac.uk/europpblog/2022/10/05/interest-rate-hikes-are-not-the-answer-to-europes-inflation-problem/>
- 90 Kaczmarczyk, P. (2022). *Interest rate hikes are not the answer to Europe's inflation problem*. *EUROPP, London School of Economics*. <https://blogs.lse.ac.uk/europpblog/2022/10/05/interest-rate-hikes-are-not-the-answer-to-europes-inflation-problem/>
- 91 Alvarez, A., Bluedorn, J., Hansen, N.-J., Huang, Y., Pugacheva, E., & Sollaci, A. (2022). *Wage-price spiral: What is the historical evidence?* [Working Paper No. 2022/221]. *International Monetary Fund*. <https://www.imf.org/en/Publications/WP/Issues/2022/11/11/Wage-Price-Spirals-What-is-the-Historical-Evidence-525073>
- 92 Francis-Devine, B., Harari, D., Keep, M., Bolton, P., Barton, C., & Harker, R. (2024). *Rising cost of living in the UK*. House of Commons Library. <https://commonslibrary.parliament.uk/research-briefings/cbp-9428/>
- 93 Romei, V., & Smith, A. (2024). Global inflation and interest rates tracker: see how your country compares. *Financial Times*. <https://www.ft.com/content/088d3368-bb8b-4ff3-9df7-a7680d4d81b2>
- 94 Schröder Bosch, J. (2024). *Wages and inflation: The ECB's non-dilemma*. *Positive Money*. <https://www.positivemoney.eu/2024/04/wages-inflation/>
- 95 Weber, I., & Wasner, E. (2023). *Sellers' inflation, profits and conflict: Why can large firms hike prices in an emergency?* *UMass Amherst Economics Department*. https://scholarworks.umass.edu/econ_workingpaper/343/
- 96 Weber, I., & Wasner, E. (2023). *Sellers' inflation, profits and conflict: Why can large firms hike prices in an emergency?* [Economics Department Working Paper Series]. *Umass Amherst*. <https://doi.org/10.7275/cbv0-gv07>
- 97 Harris, T. (2023). *It's time for interest rates to go green*. *New Economics Foundation*. <https://neweconomics.org/2023/11/its-time-for-interest-rates-to-go-green>
- 98 Aguila, N., & Wullweber, J. (2024). Greener and cheaper: Green monetary policy in the era of inflation and high interest rates. *Eurasian Economic Review*, 14, 39–60. <https://link.springer.com/article/10.1007/s40822-024-00266-y>
- 99 Voldsgaard, A., Egli, F., & Pollitt, H. (2022). *Can we avoid green collateral damage from rising interest rates*. UCL Institute for Innovation and Public Purpose. <https://medium.com/iipp-blog/can-we-avoid-green-collateral-damage-from-rising-interest-rates-1259ea94c9ea>
- 100 Sissons, A. (2023). How higher interest rates could slow our journey to net zero. *Medium*. <https://acjsissons.medium.com/how-higher-interest-rates-could-slow-our-journey-to-net-zero-b95093414b5>
- 101 Murugaboopathy, P., & Wilkes, T. (2023). Renewables funds see record outflows as rising rates, costs hit shares. *Reuters*. <https://www.reuters.com/sustainability/climate-energy/renewables-funds-see-record-outflows-rising-rates-costs-hit-shares-2023-10-09/>
- 102 Williams, R. (2023). *Unravelling the UK's failed offshore wind auction. A case study in market dynamics*. <https://enodatech.com/news-insight/unravelling-the-uks-failed-offshore-wind-auction/>
- 103 Blanchard, O. (2018). Should we reject the natural rate hypothesis? *Journal of Economic Perspectives*, 32, 97–120. <https://pubs.aeaweb.org/doi/pdf/10.1257/jep.32.1.97>
- 104 Pereira da Silva, L., Kharroubi, E., Kohlscheen, E., Lombardi, M., & Mojon, B. (2022). *Inequality hysteresis and the effectiveness of macroeconomic stabilisation policies*. *Bank for International Settlements*. <https://www.bis.org/publ/othp50.pdf>
- 105 Lachowska, M., Mas, A., & Woodbury, S. (2019). *Sources of displaced workers' long-term earnings losses*. *National Bureau of Economic Research*. https://www.nber.org/system/files/working_papers/w24217/w24217.pdf
- 106 Quintini, G., & Venn, D. (2013). *Back to work: re-employment, earnings and skill use after job displacement*. *Organisation for Economic Co-operation and Development*. <https://www.voiced.edu.au/content/ngv:67228>
- 107 Pereira da Silva, L., Kharroubi, E., Kohlscheen, E., Lombardi, M., & Mojon, B. (2022). *Inequality hysteresis and the effectiveness of macroeconomic stabilisation policies*. *Bank for International Settlements*. <https://www.bis.org/publ/othp50.pdf>
- 108 Ampudia, M., Gerogarakos, D., Slacalek, J., Tristani, O., Vermeulen, P., & Violante, G. (2018). *Monetary policy and household inequality* [Working Paper No. 2170]. *European Central Bank*. <https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2170.en.pdf>
- 109 Mason, J. W., & Melodia, L. (2021). *Rethinking inflation policy: A toolkit for economic recovery*. *Roosevelt Institute*. https://rooseveltinstitute.org/wp-content/uploads/2021/10/RI_Rethinking-Inflation-Policy_Brief_202110.pdf

HOW DO YOU SOLVE A PROBLEM LIKE INFLATION? THE CASE FOR MONETARY-FISCAL COORDINATION

- 110 BBC Verify. (2021). How serious is the shortage of lorry drivers? *BBC*. <https://www.bbc.co.uk/news/57810729>
- 111 Arioli, R., Bobecca, E. & Roma, M., & Soudan, M. (2023). *Rent inflation in the euro area*. *European Central Bank*. https://www.ecb.europa.eu/press/economic-bulletin/focus/2023/html/ecb.ebbox202307_07~d55c0f2d23.en.html
- 112 European Council. (2024). *Energy prices and security of supply*. <https://www.consilium.europa.eu/en/policies/energy-prices-and-security-of-supply/>
- 113 Rietveld, E. (2022) *Strengthening the security of supply of products containing critical raw materials for the green transition and decarbonisation*. *European Parliament*. <https://www.europarl.europa.eu/cmsdata/267347/QA-04-22-302-EN-C.pdf>
- 114 Wildauer, R., Kohler, K., Aboobaker, A., & Guschanski, A. (2023). How to reduce inflation without increasing unemployment and income inequality. *LSE Business Review*. <https://blogs.lse.ac.uk/businessreview/2023/11/29/how-to-reduce-inflation-without-increasing-unemployment-and-income-inequality/>
- 115 Wallace Lockhart, D. (2024). Oil and gas profits windfall tax extended until 2029. *BBC*. <https://www.bbc.co.uk/news/uk-scotland-scotland-business-68489807>
- 116 European Council. (2022). *Council agrees on emergency measures to reduce energy prices*. <https://www.consilium.europa.eu/en/press/press-releases/2022/09/30/council-agrees-on-emergency-measures-to-reduce-energy-prices/>
- 117 Wallace Lockhart, D. (2024). Oil and gas profits windfall tax extended until 2029. *BBC*. <https://www.bbc.co.uk/news/uk-scotland-scotland-business-68489807>
- 118 Capelle, D., & Liu, Y. (2023). *Optimal taxation of inflation*. *International Monetary Fund*. <https://doi.org/10.5089/9798400261169.001>
- 119 Capelle, D., & Liu, Y. (2023). *Optimal taxation of inflation*. *International Monetary Fund*. <https://doi.org/10.5089/9798400261169.001>
- 120 Woodruff, N. (2022). *Liz Truss's energy subsidy. UK in a changing Europe*. <https://ukandeu.ac.uk/energy-subsidy/>
- 121 Catalan News. (2023, April 27). Spain passes new housing law capping rent increases: all you need to know. *Catalan News*. <https://www.catalannews.com/politics/item/spain-passes-new-housing-law-all-you-need-to-know>
- 122 Neely, C. (2022). *Why price controls should stay in the history books*. *Federal Reserve Bank of St. Louis*. <https://www.stlouisfed.org/publications/regional-economist/2022/mar/why-price-controls-should-stay-history-books>
- 123 Mason, J. W., & Melodia, L. (2021). *Rethinking inflation policy: A toolkit for economic recovery*. *Roosevelt Institute*. https://rooseveltinstitute.org/wp-content/uploads/2021/10/RI_Rethinking-Inflation-Policy_Brief_202110.pdf
- 124 Lepetit, M. (2017). *Politique monétaire de la France entre 1974 et 1984 et financement de la transition énergétique*. Chaire Energie et Prospérité. <http://www.chair-energy-prosperity.org/wp-content/uploads/2017/06/publication-documents-archives-politique-monnaire-transitionenergetique-1974-1984.pdf>
- 125 Krebel, L., & van Lerven, F. (2022). *Green credit guidance: a green term funding scheme for a cooler future*. *New Economics Foundation*. https://neweconomics.org/uploads/files/NEF_GCG.pdf
- 126 Monnet, E., & van't Klooster, J. (2023). *Using green credit policy to bring down inflation- What central bankers can learn from history*. *INSPIRE*. <https://www.inspiregreenfinance.org/wp-content/uploads/2023/07/INSPIRE-Sustainable-Central-Banking-Toolbox-Policy-Briefing-13.pdf>
- 127 Lonergan, E., & Greene, M. (2020, September 3). Dual interest rates give central banks limitless firepower. *CEPR*. <https://cepr.org/voxeu/columns/dual-interest-rates-give-central-banks-limitless-fire-power>
- 128 Jourdan, S., van Tilberg, R., Simi, A., Kramer, B., & Bronstoring, G. (2024). *A green interest rate for the Eurozone: evaluating the design choices*. *Sustainable Finance Lab*. <https://sustainablefinancelab.nl/wp-content/uploads/sites/334/2024/09/A-green-interest-rate-for-Europe.pdf>
- 129 Clarke, D. (2022). *BoJ green loans scheme gets underway*. *Green Central Banking*. <https://greencentralbanking.com/2022/01/20/japan-green-loans-scheme>
- 130 Caswell, G. (2021). *PBoC launches targeted green lending*. *Green Central Banking*. <https://greencentralbanking.com/2021/11/10/pboc-launches-targeted-green-lending/>
- 131 Macron, E. (2023). *Discours du Président de la République à l'occasion de la session plénière de la COP 28 de Dubai*. <https://www.elysee.fr/emmanuel-macron/deplacement-a-la-cop28-de-dubai#publication-list>
- 132 Anderson, K. (2023). *What is green taxonomy and where do we stand in the UK*. *Greenly Institute*. <https://greenly.earth/en-gb/blog/company-guide/what-is-green-taxonomy-and-where-do-we-stand-in-the-uk>
- 133 United Nations. (2022). *Greenwashing - the deceptive tactics behind environmental claims*. <https://www.un.org/en/climatechange/science/climate-issues/greenwashing>
- 134 Bank of Japan. (2024). *Outline of transaction for climate response financing operations*. *Bank of Japan*. https://www.boj.or.jp/en/mopo/measure/mkt_ope/ope_x/opetori22.htm
- 135 Macaire, C., & Naef, A. (2022). Greening monetary policy: Evidence from The People's Bank of China. *IFC Bulletins*. <https://ideas.repec.org/h/bis/bisifc/56-08.html>
- 136 Dafermos, Y., Gabor, D., Nikolaidi, M., Pawloff, A., & van Lerven, F. (2021). *Greening the Eurosystem Collateral Framework*. *New Economics Foundation*. <https://neweconomics.org/2021/03/greening-the-eurosystem-collateral-framework>
- 137 Rule, G. (2012). *Collateral management in central bank balance policy operations*. *Centre for Central Banking Studies, Bank of England*. <https://www.bankofengland.co.uk/-/media/boe/files/ccbs/resources/collateral-management-in-central-bank-policy-operations.pdf>
- 138 Federal Reserve. (2010). *Agency mortgage-backed securities (MBS) purchase program*. <https://www.federalreserve.gov/regreform/reform-mbs.htm>
- 139 European Central Bank. (2020). *ECB announces package of temporary collateral easing measures*. <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200407~2472a8ccda.en.html>

HOW DO YOU SOLVE A PROBLEM LIKE INFLATION? THE CASE FOR MONETARY-FISCAL COORDINATION

- 140 Chenet, H., Ryan-Collins, J., & van Lerven, F. (2019). *Climate-related financial policy in a world of radical uncertainty: towards a precautionary approach*. UCL Institute for Innovation and Public Purpose. https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/final_chenet_et_al_climate-related_financial_policy_-_towards_a_precautionary_approach_20_dec.pdf
- 141 Monnet, E., & van't Klooster, J. (2023). *Using green credit policy to bring down inflation- What central bankers can learn from history*. INSPIRE. <https://www.inspiregreenfinance.org/wp-content/uploads/2023/07/INSPIRE-Sustainable-Central-Banking-Toolbox-Policy-Briefing-13.pdf>
- 142 Ubide, A. (2019). Fiscal policy at the zero lower bound. *Intereconomics*, 54(5). <https://www.intereconomics.eu/contents/year/2019/number/5/article/fiscal-policy-at-the-zero-lower-bound.html>
- 143 Montecino, J. A., & Epstein, G. (2017). *Did Quantitative Easing Increase Income Inequality*. Council on Economic Policies. <https://www.cepweb.org/wp-content/uploads/2017/11/Montecino-paper.pdf>
- 144 Huston, J. H., & Spencer, R. W. (2017). Quantitative easing and asset bubbles. *Applied Economics Letters*, 25(6). <https://www.tandfonline.com/doi/pdf/10.1080/13504851.2017.1324604>
- 145 Ugai, H. (2007). *Effects of the quantitative easing policy: A survey of empirical analyses*. *Monetary and Economic Studies*. <https://www.imes.boj.or.jp/research/papers/english/me25-1-1.pdf>
- 146 Mahon, C. (2023). *Will the Bank of England have to change course on QE losses? Columbia Threadneedle Investments*. <https://www.columbiathreadneedle.co.uk/en/inst/insights/will-the-bank-of-england-have-to-change-course-on-qe-losses/>
- 147 Chevalier, A., Harmon, C., Walker, I., & Zhu, Y. (2004). Does education raise productivity, or just reflect it? *The Economic Journal*, 114. https://personal.rhul.ac.uk/urte/247/Papers/ecoj_953.pdf
- 148 Raghupathi, V., & Raghupathi, W. (2020). Healthcare expenditure and economic performance: Insights from the United States data. *Front Public Health*, 156(8). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7237575/>
- 149 Sandher, J., & Stephens, T. (2023). *Investing in universal early years education pays for itself*. New Economics Foundation. <https://neweconomics.org/2023/07/investing-in-universal-early-years-education-pays-for-itself>
- 150 Pfeiffer, P., Varga, J., & van't Veld, J. (2023). *Unleashing potential: Model-based reform benchmarking for EU member states*. European Commission. https://economy-finance.ec.europa.eu/document/download/61cab4a9-5283-49e7-88c2-4d824d0794cf_en?filename=dp192_en_1
- 151 Lieberman, D., & Doherty, S. (2008). *Renewable energy as a hedge against fuel price fluctuation*. Commission for Environmental Cooperation. <http://www.cec.org/files/documents/publications/2360-renewable-energy-hedge-against-fuel-price-fluctuation-en.pdf>
- 152 Melodia, L., & Karlsson, K. (2022). *Energy price stability: The peril of fossil fuels and the promise of renewables*. Roosevelt Institute. <https://rooseveltinstitute.org/publications/energy-price-stability/>
- 153 International Energy Agency. (2023). *How much money are European consumers saving thanks to renewables?* <https://www.iea.org/reports/renewable-energy-market-update-june-2023/how-much-money-are-european-consumers-saving-thanks-to-renewables>
- 154 International Energy Agency. (2023). *Renewable energy market update - June 2023*. <https://www.iea.org/reports/renewable-energy-market-update-june-2023>
- 155 Ciccarelli, M., Kuik, F., & Herández. (2023). *The outlook is mixed: the asymmetric effects of weather shocks on inflation*. <https://www.ecb.europa.eu/press/research-publications/resbull/2023/html/ecb.rb231010~d34f3708ac.en.html>
- 156 Wren-Lewis, S. (2024). When are large and persistent increases in debt to GDP justified? *Mainly Macro*. <https://mainlymacro.blogspot.com/2024/05/when-are-large-and-persistent-increases.html>
- 157 Buitier, W. (1977). 'Crowding out' and the effectiveness of fiscal policy. *Journal of Public Economics*, 7(3). <https://www.sciencedirect.com/science/article/abs/pii/004727277900524>
- 158 Abiad, A. D., Furceri, D., & Topalova, P. (2015). *The macroeconomic effects of public investment: Evidence from*. *International Monetary Fund*. <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/The-Macroeconomic-Effects-of-Public-Investment-Evidence-from-Advanced-Economies-42892>
- 159 Turner, A. (2015). The case for monetary finance – an essentially political issue. *International Monetary Fund, 16th Jaques Polak Annual Research Conference*. <https://www.imf.org/external/np/res/seminars/2015/arc/pdf/adair.pdf>
- 160 Turner, A. (2015). The case for monetary finance – an essentially political issue. *International Monetary Fund, 16th Jaques Polak Annual Research Conference*. <https://www.imf.org/external/np/res/seminars/2015/arc/pdf/adair.pdf>
- 161 Schnabel, I. (2024). *Reassessing monetary policy tools in a volatile macroeconomic environment*. ECB. <https://www.ecb.europa.eu/press/key/date/2024/html/ecb.sp241114~af51032e63.en.html>
- 162 Bernardo, G., Ryan-Collins, J., Werner, R., & Greenham, T. (2013). *Strategic quantitative easing*. New Economics Foundation. <https://neweconomics.org/2013/07/strategic-quantitative-easing>
- 163 European Central Bank. (2022). *ECB provides details on how it aims to decarbonise its corporate bond holdings*. <https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220919~fae53c59bd.en.html>
- 164 Bank of England. (2021). *Bank of England publishes its approach to greening the corporate bond purchase scheme*. <https://www.bankofengland.co.uk/news/2021/november/boe-publishes-its-approach-to-greening-the-corporate-bond-purchase-scheme>
- 165 Belz, S., & Wessel, D. (2020). *What is yield curve control?* Brookings Institute. <https://www.brookings.edu/articles/what-is-yield-curve-control/>
- 166 Cole, W. (2021). *Australia's central bank loses yield control as bonds melt down*. Reuters. <https://www.reuters.com/business/australias-central-bank-loses-yield-control-bonds-melt-down-2021-10-29/>
- 167 Rose, J. (2021). *Yield curve control in the United States, 1942 to 1951*. Federal Reserve Bank of Chicago. *Economic Perspectives*, No. 2. <https://www.chicagofed.org/publications/economic-perspectives/2021/2>

HOW DO YOU SOLVE A PROBLEM LIKE INFLATION? THE CASE FOR MONETARY-FISCAL COORDINATION

- 168 Kihara, L. (2023). *How does Japan's yield curve control work?* Reuters. <https://www.reuters.com/markets/asia/how-does-japans-yield-curve-control-work-2023-07-28/>
- 169 Elliot, L. (2020, April 9). Bank of England to finance UK government Covid-19 crisis spending. *The Guardian*. <https://www.theguardian.com/business/2020/apr/09/bank-of-england-to-finance-uk-government-covid-19-crisis-spending>
- 170 Economic Affairs Committee. (2021). *Quantitative easing: a dangerous addiction?* *The House of Lords*. <https://committees.parliament.uk/publications/6725/documents/71894/default/>
- 171 Buetzer, S. (2022). *Advancing the monetary policy toolkit through outright transfers* [Working Paper No. 087]. IMF. <https://doi.org/10.5089/9798400209949.001>
- 172 Bartsch, E., Boivin, J., Fischer, S., & Hildebrand, P. (2019). Dealing with the next downturn: From unconventional monetary policy to unprecedented policy coordination. *SUIERF Policy Note 105*. <https://www.suerf.org/publications/suerf-policy-notes-and-briefs/dealing-with-the-next-downturn-from-unconventional-monetary-policy-to-unprecedented-policy-coordination/>
- 173 Honohan, P. (2019) Should monetary policy take inequality and climate change into account? *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3478285>
- 174 Martin, P., Monnet, É., & Ragot, X. (2021). *What else can the European Central Bank do?* Conseil d'Analyse Économique. <https://www.cae-eco.fr/staticfiles/pdf/cae-note065-en.pdf>
- 175 Drescher, K., Fessler, P., & Lindner, P. (2020). Helicopter money in Europe: New evidence on the marginal propensity to consume across European households. *Economic Letters*, 195, 109416. <https://doi.org/10.1016/j.econlet.2020.109416>
- 176 Reserve Bank of India. (2015). *Priority sector lending-targets and classification*. <https://www.rbi.org.in/commonperson/English/Scripts/Notification.aspx?Id=2570>
- 177 Hossain, M. (2023). *Bangladesh banks on green loans to help fight climate change*. Reuters. <https://www.reuters.com/article/idUSL8N38M2B5/>
- 178 Sweatman, P. (2021) *Underwriting the renovation wave with mortgage portfolio standards for energy efficiency*. *Climate Strategies & Partners*. <https://www.climatestrategy.es/press/MortgagePortfolioStandardsREPORT2021.pdf>
- 179 Evain, J., & Noguès, L. (2022). *Implementing prudential transition plans for banks: What are the expected impacts?* *Institute 4 Climate Economics*. <https://www.i4ce.org/en/publication/implementing-prudential-transition-plans-banks-what-are-expected-impacts-climate/>
- 180 Long, J., & Fisher, P. (2024). *Central bank profit distribution and recapitalisation*. Bank of England. <https://www.bankofengland.co.uk/-/media/boe/files/working-paper/2024/central-bank-profit-distribution-and-recapitalisation.pdf>
- 181 Caddick, D. (2023). *Reducing the stealth subsidy to banks*. New Economics Foundation. <https://neweconomics.org/2023/09/reducing-stealth-subsidy-to-banks>
- 182 Bell, S., Chui, M., Gomes, T., Moser-Boehm, P., Tejada, A. P. (2023). *Why are central banks reporting losses? Does it matter?* Bank for International Settlements. <https://www.bis.org/publ/bisbull68.pdf>
- 183 Diessner, S. (2022). The power of folk ideas in economic policy and the central bank-commercial bank analogy. *New Political Economy*, 28(2), 315–318. <https://www.tandfonline.com/doi/full/10.1080/13563467.2022.2109610>
- 184 Archer, D., & Moser-Boehm, P. (2013). *Central bank finances*. BIS Papers, Bank for International Settlements. <https://ideas.repec.org/b/bis/bisbps/71.html>
- 185 Bell, S., Chui, M., Gomes, T., Moser-Boehm, P., & Tejada, A. P. (2023). *Why are central banks reporting losses? Does it matter?* Bank for International Settlements. <https://www.bis.org/publ/bisbull68.pdf>
- 186 Buetzer, S. (2022). *Advancing the monetary policy toolkit through outright transfers* [Working Paper No. 087]. IMF. <https://doi.org/10.5089/9798400209949.001>
- 187 Van Lerven, F., & Caddick, D. (2022). *Between a rock and a hard place*. New Economics Foundation. <https://neweconomics.org/2022/06/between-a-rock-and-a-hard-place>
- 188 De Grauwe, P., & Ji, Y. (2023). *Fighting inflation more effectively without transferring central banks' profits to banks* (CESifo Working Paper No. 10741). SSRN. <https://doi.org/10.2139/ssrn.4626501>
- 189 Arons, S. (2023). ECB scraps interest on minimum reserve in hit to bank income. *Bloomberg*. <https://www.bloomberg.com/news/articles/2023-07-27/ecb-scraps-interest-on-minimum-reserve-in-hit-to-bank-income>
- 190 Da Silva, P., Awazu, L., Kharroubi, E., Kohlscheen, E., Lombardi, M., & Mojon, B. (2022). *Inequality hysteresis and the effectiveness of macroeconomic stabilisation policies*. Bank for International Settlements. <https://www.bis.org/publ/othp50.pdf>
- 191 Reuters. (2024, February 28). BoE's Mann says rich consumers are making it harder to curb inflation. *Reuters*. <https://www.reuters.com/world/uk/boes-mann-says-rich-consumers-are-making-it-harder-curb-inflation-2024-02-28/>
- 192 Drudi, F., Moench, E., Hotlhausen, Weber, P. F., Adao, B., Algoskoufis, S., Andersson, M., ... Yebes Gomez, G. (2021) *Climate change and monetary policy in the Euro area*. European Central Bank. <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op271~36775d43c8.en.pdf>
- 193 Dafermos, Y., Gabor, D., Nikolaidi, M., Pawloff, A., & van Lerven, F. (2021). *Greening the Eurosystem Collateral Framework*. *New Economics Foundation*. <https://neweconomics.org/2021/03/greening-the-eurosystem-collateral-framework>
- 194 European Central Bank. (2022). *ECB takes further steps to incorporate climate change into its monetary policy operations*. <https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220704~4f48a72462.en.html>
- 195 Reclaim Finance. (2024). *Greening the Euro system collateral framework*. <https://reclaimfinance.org/site/en/2024/01/12/greening-the-eurosystem-collateral-framework/>
- 196 Chenet, H., Ryan-Collins, J., & van Lerven, F. (2019). *Climate-related financial policy in a world of radical uncertainty: towards a precautionary approach*. UCL Institute for Innovation and Public Purpose. https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/final_chenet_et_al_climate-related_financial_policy_-_towards_a_precautionary_approach_20_dec.pdf

HOW DO YOU SOLVE A PROBLEM LIKE INFLATION? THE CASE FOR MONETARY-FISCAL COORDINATION

- 197 SIFMA Insights. (2021). *Capital Markets Primer Part II: Primary, secondary & post-trade markets*. <https://www.sifma.org/wp-content/uploads/2021/05/SIFMA-Insights-Primary-Secondary-Post-Trade-Markets-Primer-FINAL-FOR-WEB.pdf>
- 198 Schreft, S. (1990). *Credit controls: 1980. Federal Reserve Bank of Richmond*. https://www.richmondfed.org/-/media/richmondfedorg/publications/research/economic_review/1990/pdf/er760603.pdf
- 199 Schreft, S. (1990). *Credit controls: 1980. Federal Reserve Bank of Richmond*. https://www.richmondfed.org/-/media/richmondfedorg/publications/research/economic_review/1990/pdf/er760603.pdf
- 200 Hodgman, D. R. (1973). *Credit controls in western Europe: An evaluative review. Federal Reserve Bank of Boston, Boston*. <https://www.bostonfed.org/-/media/Documents/conference/11/conf11h.pdf>
- 201 Dikau, S., & Volz, U. (2023). *Out of the window? Green monetary policy in China: Window guidance and the promotion of sustainable lending and investment. Climate Policy, 23(1)*. <https://doi.org/10.1080/14693062.2021.2012122>
- 202 Bezemer, D., Ryan-Collins, J., van Lerven, F., & Zhang, L. (2018). *Credit where it's due. Institute for Innovation and Public Purpose*. <https://www.ucl.ac.uk/bartlett/public-purpose/publications/2018/nov/credit-where-its-due>
- 203 Schreft, S. (1990). *Credit controls: 1980. Federal Reserve Bank of Richmond*. https://www.richmondfed.org/-/media/richmondfedorg/publications/research/economic_review/1990/pdf/er760603.pdf
- 204 Hodgman, D. R. (1973). *Credit controls in western Europe: An evaluative review. Federal Reserve Bank of Boston, Boston*. <https://www.bostonfed.org/-/media/Documents/conference/11/conf11h.pdf>
- 205 Van Lerven, F. (2018). *Credit where it's due. New Economics Foundation*. <https://neweconomics.org/2018/09/take-control-of-credit>
- 206 Bank Overground. (2020). *What sources of credit do UK companies rely on? Bank of England*. <https://www.bankofengland.co.uk/bank-overground/2020/what-sources-of-credit-do-uk-companies-rely-on>
- 207 Bank Overground. (2020). *What sources of credit do UK companies rely on? Bank of England*. <https://www.bankofengland.co.uk/bank-overground/2020/what-sources-of-credit-do-uk-companies-rely-on>
- 208 Bernanke, B. (2016). *What tools does the Fed have left? Part 3: Helicopter money. Brookings Institute*. <https://www.brookings.edu/articles/what-tools-does-the-fed-have-left-part-3-helicopter-money/>
- 209 Turner, A. (2015). The case for monetary finance – An essentially political issue. *International Monetary Fund, 16th Jacques Polak Annual Research Conference*. <https://www.imf.org/external/np/res/seminars/2015/arc/pdf/adair.pdf>
- 210 Jacobs, M., Calvert Jump, R., Michell, J., & van Lerven, F. (2023). *In tandem: The case for coordinated economic policy making. Fabian Society*. <https://fabians.org.uk/publication/in-tandem>
- 211 Monnet, É. (2021, March 26). New central banking calls for a European Credit Council. *CEPR*. <https://cepr.org/voxeu/columns/new-central-banking-calls-european-credit-council>
- 212 van't Klooster, J., & de Boer, N. (2021) *The ECB's neglected secondary mandate: An inter-institutional solution. Positive Money Europe*. https://www.positivemoney.eu/wp-content/uploads/2021/10/The-ECBs-neglected-secondary-mandate_v6.0.pdf
- 213 French Government. (2019, May 15). *Hearing of Benoît Cœuré at the French National Assembly, Paris, France*. https://www.assemblee-nationale.fr/dyn/15/comptes-rendus/cion_fin/15cion_fin1819074_compte-rendu
- 214 Costa, M. (2023). *UK chancellor's remit letter to BoE downgrades climate change focus. Green Central Banking*. <https://greencentralbanking.com/2023/12/04/uk-chancellor-boe-climate-change/>
- 215 Claeys, G., Jourdan, S., Bérès, P., Diessner, S., Demetriades, P., van't Klooster, J., Schmidt, V., & de Boer, N. (2021). The ECB needs political guidance on secondary objectives. *Euractiv*. <https://www.euractiv.com/section/economic-governance/opinion/the-ecb-needs-political-guidance-on-secondary-objectives/>
- 216 Thiele, A. (2023). *Proportionality in German constitutional law. Treading softly: How central banks are addressing current global challenges. ECB Legal Conference 2023, European Central Bank, pp. 28–38*. <https://www.ecb.europa.eu/pub/pdf/other/ecb.ecblegalconferenceproceedings2023~c72d6d7c84.en.pdf>
- 217 Ioannidis, M., Hlášková, S. J., & Zilioli, C. (2021). *The mandate of the ECB: Legal considerations in the ECB's monetary policy strategy review. European Central Bank, Occasional Papers*. <https://doi.org/10.2139/ssrn.3928298>
- 218 Akbik, A., & Diessner, S. (2024). Police patrols, fire alarms, or ambulance chasers? Parliamentary oversight of European monetary policy and banking supervision. *West European Politics, 0(0)*, 1–27. <https://doi.org/10.1080/01402382.2024.2357498>
- 219 van de Steeg, M. (2009). *Public accountability in the European Union: Is the European Parliament able to hold the European Council accountable? European Integration online Papers*. <https://papers.ssrn.com/abstract=1476905>
- 220 Carnot, N, Evans, P., Fatica, S., & Mourre, G. (2015). *Income insurance: a theoretical exercise with empirical application for the euro area. DG ECFIN Economic Papers, 546*. https://ec.europa.eu/economy_finance/publications/economic_paper/2015/pdf/ecp546_en.pdf
- 221 Alonso, D. (2024). *Stabilisation properties of a sure-like European unemployment insurance. [Working Paper No. 2419]. Banco de España*. <https://doi.org/10.53479/36654>
- 222 European Commission. (2024). *Mid-term evaluation of the recovery & resilience facility. Strengthening our Union through ambitious reforms and investments*. https://economy-finance.ec.europa.eu/document/download/85f0c9e6-6832-4d07-abf3-2a9280ff7cc8_en?filename=ip269_en.pdf
- 223 Bankowski, K., Ferdinandusse, M., Hauptmeier, S., Jacquinot, P., & Valenta, V. (2021). *Occasional Paper Series – The macroeconomic impact of the Next Generation EU instrument on the euro area*. <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op255~9391447a99.en.pdf>
- 224 Mang, S., & Caddick, D. (2024). *Navigating constraints for progress: examining the impact of EU fiscal rules on social and green investments. New Economics Foundation and European Trade Union Confederation*. <https://www.etuc.org/en/publication/navigating-constraints-progress-examining-impact-eu-fiscal-rules-social-and-green>

HOW DO YOU SOLVE A PROBLEM LIKE INFLATION? THE CASE FOR MONETARY-FISCAL COORDINATION

- 225 Junker, J., Tusk, D., Dijsselbloem, J., Draghi, M., & Schulz M. (2015). *Completing Europe's economic and monetary union (Policy Note)*. (Policy Note). https://ec.europa.eu/commission/presscorner/detail/en/IP_15_5874
- 226 Beetsma, R., Cimadomo, J., & van Spronsen, J. (2022). *One scheme fits all: A central fiscal capacity for the EMU targeting eurozone, national and regional shocks*. *European Central Bank*. <https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2666~170f00add8.en.pdf>
- 227 Lejour, A., & van 't Riet, M. (2020). *A common withholding tax on dividend, interest and royalties in the European Union*. *Foundation for European Progressive Studies*. <https://feeps-europe.eu/wp-content/uploads/2020/09/A-Common-Withholding-Tax-for-the-EU.pdf>
- 228 Zucman, G. (2024). *A blueprint for a coordinated minimum effective taxation standard for ultra-high-net-worth individuals*. *EU Tax Observatory*. <https://www.taxobservatory.eu/publication/a-blueprint-for-a-coordinated-minimum-effective-taxation-standard-for-ultra-high-net-worth-individuals/>
- 229 New Economics Foundation. (2024). *Europe-wide frequent flying levy would raise €64bn without any cost to majority of people*. <https://neweconomics.org/2024/10/europe-wide-frequent-flying-levy-would-raise-64bn-without-any-cost-to-majority-of-people>
- 230 van Lerven, F., Stirling, A., & Prieg, L. (2021). *Calling time: replacing the fiscal rules with fiscal referees*. *New Economics Foundation*. <https://neweconomics.org/uploads/files/fiscal-referees.pdf>
- 231 Kurmayer, N. (2021). *German tip court rejects complaint against ECB's bond-buying scheme*. *Euractiv*. <https://www.euractiv.com/section/economy-jobs/news/german-top-court-rejects-complaint-against-ecbs-bond-buying-scheme/>
- 232 Smole ska, A. (2023). *A European Credit Council for consistent and informed policymaking*. *Accounting, Economics, and Law: A Convivium*. <https://doi.org/10.1515/acl-2022-0065>
- 233 Wyploz, C., Sibert, A., Claeys, G., de la Dehesa, G., Whelan, K., Collignon, S., Eijffinger, S., & Belke, A. (2014). *Monetary dialogue 2009-2014 :looking backward, looking forward*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2861/367209>
- 234 Berry, C., & Berry, R. (2013). *Has the Office for Budget Responsibility achieved genuine independence from government? Democratic Audit, London School of Economics*. [https://eprints.lse.ac.uk/54227/1/Richard Berry Craig Berry democraticaudit.com-Has_the_Office_for_Budget_Responsibility.pdf](https://eprints.lse.ac.uk/54227/1/Richard%20Berry%20Craig%20Berry%20democraticaudit.com-Has_the_Office_for_Budget_Responsibility.pdf)
- 235 Walsh, C. (2021). *How independent is the OBR, and why does it matter? Cardiff University*. [https://orca.cardiff.ac.uk/id/eprint/151358/1/OBR Walsh.pdf](https://orca.cardiff.ac.uk/id/eprint/151358/1/OBR%20Walsh.pdf)

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