

SPEECH

Setbacks and strides forward: structural shifts and monetary policy in the twenties

Speech by Christine Lagarde, President of the ECB, at the 2024 Michel Camdessus Central Banking Lecture organised by the IMF

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Central banks are public institutions with powerful tools, but the way these tools affect the economy is constantly changing. This uncertainty comes, in part, from the famous “long and variable” lags of monetary policy transmission.^[1] It typically takes 18 to 24 months for a change in interest rates to have its peak effect on the economy and inflation.^[2]

But there are also more fundamental issues that affect the transmission of monetary policy, which were identified by Federal Reserve Chairman Alan Greenspan 20 years ago. He wrote that:

“The economic world in which we function is best described by a structure whose parameters are continuously changing. The channels of monetary policy, consequently, are changing in tandem.”^[3]

In other words, the effectiveness of monetary policy is intrinsically linked to the evolving structure of the economy. In recent years, uncertainty about policy transmission has been particularly acute.

We have faced the worst pandemic since the 1920s, the worst conflict in Europe since the 1940s, and the worst energy shock since the 1970s. These shocks have changed the structure of the economy and posed a challenge for how we assess the impact of monetary policy. This challenge was exacerbated by the fact that the pandemic caught us after a long period of anaemic growth, below-target inflation and low interest rates.

To manage this uncertainty, we introduced a three-pronged policy framework, focusing not only on forecast inflation but also on underlying inflation dynamics and the strength of transmission. This framework has been instrumental in helping us calibrate the rate path over the last phase of the hiking cycle, during the period when we held rates at their peak and, more recently, as we have started to make policy less restrictive.

Our determined policy actions have successfully kept inflation expectations anchored, and inflation is projected to return to 2% over the second half of next year. Considering the size of the inflation shock, this unwinding is remarkable.

But the uncertainty ahead is still profound. The economy is currently undergoing transformational changes and we need to analyse and understand their impact.

While some of these changes – like climate change and ageing societies – are unique to our times, others resemble those that took place a century ago. Two specific parallels between the “two twenties” – the 1920s and the 2020s – stand out. Today, like back then, we are seeing setbacks in global trade integration, at the same time as strides forward in technological progress.

But there is an important difference in how these changes are affecting monetary policy.

In the interwar period, structural shifts affected the prevailing monetary policy strategy. The main lesson for central banks was that the dominant paradigm was not robust in times of profound structural change.

It was this realisation that led to modern monetary policy strategies emerging a few decades later, with a core focus on price stability and flexible policy strategies to deliver it.

Thanks to these developments, we are in a better position today to address these structural changes than our predecessors were. The challenge we face is not about our goals, which have proven successful, or our tools, which are sufficiently flexible.

Rather, it is about how monetary transmission will be affected by structural shifts, and how we should adjust our analytical frameworks to these shifts.

In my remarks today, I will start by exploring the parallels between the structural changes of the 1920s and those of the 2020s, while highlighting the different implications for monetary policy in each era. I will then share some preliminary considerations for the evolution of policy frameworks.

My main message is that we must be ready for change and prepared to use the flexibility in our frameworks as necessary. To ensure stability in the future, our approach must continue to embody “stability without rigidity”, allowing us to adjust swiftly as the economy transforms.

Post-war structural shifts and monetary policy in the 1920s

If we go back a century to the 1920s, the world economy was going through a series of transformations. These shifts pulled in different directions, representing both setbacks and strides forward from the previous environment. They fundamentally changed the structure of the economy.

Two of these shifts had profound implications for monetary policy.

The first was global fragmentation, which put an end to the open, liberal economic order of the late 19th century and its assumed permanence.

The decades leading up to the First World War had seen rapid global integration. World trade as a share of GDP rose from 10% in 1870 to 17% in 1900 and then to 21% by 1913, creating new expectations and lifestyles. As John Maynard Keynes famously wrote:

“the inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his doorstep [...] he regarded this state of affairs as normal, certain, and permanent.”^[4]

At the same time, the dominant paradigm among major central banks was the gold standard, which prioritised maintaining an external equilibrium and relying on intrinsic mechanisms for domestic credit to adjust to external imbalances.

But the war brought about the end of Pax Britannica, while the United States was reluctant to assume the role of global hegemon sustaining open trade. Economic nationalism rose and a rapid unravelling of globalisation followed. World trade as a percentage of GDP fell to 14% in 1929 and 9% in 1938.^{[5][6]}

Tariffs more than tripled in most European countries^[7] and also rose in the United States.^[8]

Major central banks initially attempted to revive the gold standard in the mid-1920s to recreate the conditions for open trade, but they faced a worsening trade-off.

As Ragnar Nurkse showed in his seminal study, in a more unstable world, central banks increasingly had to use gold reserves as a buffer against external shocks rather than allowing them to be transmitted to domestic credit growth.^[9] While this approach was intended as a “second-best” policy to maintain a degree of domestic stability, it ultimately exacerbated deflationary pressures. Deflation in turn fuelled economic malaise and contributed to the cycle of economic nationalism.

The second major shift in this period was rapid technological progress. While fragmentation was a step back, technology unambiguously took a step forward. But it triggered a series of changes in the economy and financial markets that created new challenges for central banks.

Innovation accelerated rapidly in this period, fuelled largely by spillovers from wartime advancements. This surge saw new machinery introduced on a much larger scale than before. Progress was most visible with the internal combustion engine, the assembly line pioneered by Henry Ford, and the electrical network and motor.^[10]

The technological boom drove rapid productivity gains. In Britain, for example, 55 employee weeks were required to produce a car at the Austin Motor Company in 1922, compared with only ten in 1927.

^[11] For Europe as a whole, the average rate of productivity growth^[12] rose to over 2% per year between 1913 and 1929, up from about 1.5% per year between 1890 and 1913.^[13]

Irrational exuberance about technology, however, also fuelled a significant rise in stock market valuations. Research indicates that a 1% increase in a firm's stock of cited patents corresponded to a 0.26% increase in market value during the 1920s.^[14] But central banks lacked a framework for dealing with booms and busts.

Several central banks tried unsuccessfully to pop stock bubbles^[15], and then they took a series of wrong turns when the crash came. The resulting banking crisis and the return to a deflationary stance – which in the United States, for example, appeared justified by the prevailing real bills doctrine – are now widely considered to have played a significant role in exacerbating the Great Depression.^[16]

A key lesson ultimately became clear for governments: central banks needed a new concept of stability. And this concept had to be reflected in their monetary policy strategies.

As the economic historian Michael D. Bordo observed, in the 1920s central banks tried to focus on both external and internal stability, “but as long as the gold standard prevailed, external goals dominated.”^[17]

The main realisation of the interwar period was that central banks in advanced economies needed to be assigned domestic stability targets first and foremost. But it took another 30 to 40 years to realise that they would do better stabilising inflation rather than fine-tuning output and employment.

Structural shifts and monetary policy in the 2020s

Today, we also face some setbacks as the global economy fractures, while seeing strides forward with transformative digital technologies expanding.

The consequences for monetary policy, however, are different.

The last few years have been an extreme stress test of inflation targeting across the globe. We have faced not only back-to-back shocks, but also a differing variety and strength of shocks in different places. For example, Europe suffered much more than the United States from high energy prices, while the United States had to contend with the legacies of a stronger stimulus to demand.

Yet, inflation is converging towards target almost everywhere. And remarkably, disinflation has come – at least so far – at a low cost to employment. As I recently observed, it is rare to avoid a major deterioration in employment when central banks raise rates in response to high energy prices.^[18] But employment has risen by 2.8 million people in the euro area since the end of 2022.

There are two reasons for this greater stability.

First, decades of inflation targeting have had a deep impact on how people build expectations about future inflation. Indeed, when the inflation goal is stated sufficiently clearly, and monetary policy is credible, inflation expectations will remain anchored, which makes the adjustment process to an inflationary shock less painful.

Second, over time central banks have recognised that stability should not mean rigidity.

Indeed, we are better placed to confront structural changes because policy strategies combine three elements: clearly defined inflation *targets*, flexible *policy toolkits* to deliver those targets, and *analytical frameworks* that can assess and respond to changes in the economy, thereby feeding into our reaction functions. We have used all these elements in recent years to ensure that monetary policy maintains price stability without excessive costs to the economy.

For these reasons, the ongoing transformations will not revolutionise the goals of monetary policy as they did a century ago. But they *are* likely to have a more profound impact on monetary transmission.

Setbacks: fragmentation

Just as one era of globalisation reached a turning point in the aftermath of the First World War, we are now witnessing another wave of globalisation plateauing. The hallmark of this era was the geographical unbundling of production through global value chains (GVCs), which led to a doubling in the value of traded intermediate goods. It now accounts for over half of world trade.^[19]

But the landscape is changing. We are not seeing outright “de-globalisation” in the sense of a reversal in world trade. But we are seeing the structure of GVCs changing in response to a more volatile environment, marked by more frequent supply shocks^[20] and a fragmenting geopolitical landscape.^[21]

ECB analysis finds that both the United States and the euro area have recently diversified their supply of imported goods, leading to a larger number of sourcing countries and increasing costs.^[22] In the United States, firms appear to be exploring the options of both “nearshoring” production in Canada and Mexico and “reshoring” at home.^[23] In Europe, the focus is on “nearshoring” production within the region while still exporting globally.^[24]

These changes have implications for monetary transmission, as they could partially reverse some of the long-term changes in the economy that may weaken transmission.

First, they could strengthen the link between domestic slack and inflation.

A key puzzle that central banks faced in the 2010s was that policy easing was transmitted strongly to activity but in a weaker fashion to inflation. One explanation for this disconnect was that the expansion of GVCs reduced the impact of domestic slack on inflation by shifting the focus to global factors.^[25] However, if GVCs become shorter or less efficient, domestic slack and inflation may reconnect. This shift could make monetary policy impulses more powerful.

Second, policy transmission may strengthen as GVC restructuring could potentially boost capital deepening. Inducements for “strategic sectors” to set up closer to home may lead to a resurgence of capital-intensive industries within advanced economies. In the United States, for instance, manufacturing construction spending has doubled since the end of 2021 in response to policies like the Inflation Reduction Act, the Bipartisan Infrastructure Law and the CHIPS and Science Act.^[26]

Such a shift could somewhat attenuate the long-term shift in activity towards services and the observed slowdown in capital deepening over recent decades. In turn, capital deepening could increase the economy's sensitivity to interest-rate changes, potentially enhancing the effectiveness of monetary transmission through the interest-rate channel.

By strengthening the transmission mechanism, these shifts could potentially allow central banks to exercise more control over domestic outcomes. But these benefits would be offset if the restructuring of GVCs led to more volatile inflation.

In a stable global environment, the expansion of GVCs facilitated a virtuous cycle of trade integration and stable inflation, as GVCs buffered the effects of cost-push shocks. Research shows that a 1% increase in input prices resulted in only a 0.44% increase in output prices owing to this buffering effect.^[27] But if supply chains were to shorten, it could lead to stronger pass-through of cost shocks.

Strides forward: technological progress

Like in the 1920s, setbacks in some areas are being matched by advancements in others. We find ourselves in the midst of a digital revolution that echoes the technological boom of the 1920s.

Just as that era saw rapid advancements in electricity, automobiles and mass production, our era is witnessing unprecedented growth in digital technologies. In particular, the rapid development of artificial intelligence (AI) looks set to transform a swathe of industries, including the financial sector. And financial technology (fintech) is already having a profound impact on finance.

In 2022, fintech generated 5% of global banking revenue, totalling USD 150 billion to USD 205 billion. This share is expected to exceed USD 400 billion by 2028, growing at an annual rate of 15%. Banks are also acquiring fintech firms and adopting their technologies to enhance their lending operations.^[28]

By changing the nature of financial intermediation and fostering competition, fintech can significantly strengthen the transmission of monetary policy decisions to the wider economy, influencing interest rates, asset prices, credit conditions and ultimately growth and inflation.

For example, advanced credit scoring^[29] and new sources of credit provided by fintech platforms can reduce lending constraints. By leveraging alternative data sources, which can include over 1,000 data

points per loan applicant, fintech using AI and machine learning has outperformed traditional credit scoring models in predicting loss rates, particularly for riskier firms.

These developments are already expanding access to finance. Fintechs have been found to process mortgage applications around 20% faster than other lenders.^[30] The use of data could also alleviate the need for collateral, thereby extending credit to underserved businesses at a lower cost.

The modern consumer who can quickly check their creditworthiness and secure the best financial deals through their smartphone is no distant fiction. In some ways, it mirrors how the Londoner of the past could effortlessly order global goods from their bed.

As a result, fintechs' credit supply tends to be more responsive to changes in borrowers' business conditions or broader economic conditions^[31], contrasting with traditional banks' emphasis on long-term relationships with borrowers. This responsiveness also means that fintech lending could be more procyclical in times of stress, amplifying credit cycles and volatility.^[32]

But the net benefits for transmission hinge crucially on the effect of digitalisation on market structures. Digital markets tend to be "winner-takes-most", as is visible in the handful of "hyperscalers" that dominate digital platforms and cloud services. For example, just three US "hyperscalers" account for over 65% of the global cloud market. Google commands an outstanding market share of more than 90% among search engines. In e-commerce, business is concentrated among a handful of top players.

Market power has important effects on policy transmission. IMF research finds that firms with greater market power are less sensitive to changes in interest rates. In the United States, a 100 basis point increase in the policy rate causes a low-markup firm to cut sales by about 2% after four quarters. By contrast, a high-markup firm barely reduces its sales in response to the same policy change.^[33]

This reduced sensitivity is likely due to the larger profits and cash reserves of superstar firms, which make them less dependent on the external financing conditions affected by monetary policy. More generally, research finds that the superior efficiency and size of superstar firms significantly reduces the labour share of income,^[34] which may also weaken policy transmission.^[35]

In short, digitalisation could make the financial sector more able to adjust financing conditions to economic conditions, but it could also make parts of the corporate sector more insensitive to monetary policy.

Some tentative implications for monetary policy

We are too early on in these transformations to come to any clear conclusions for monetary policy transmission. But we can identify some of the key questions that central banks will face.

In this context, it is important to stress that the core goals of monetary policy will have to remain unchanged. Rather than forcing us into painful trade-offs, as happened a century ago, our monetary policy strategies have proved effective, mitigating trade-offs between inflation and employment.

If we enter an era where inflation is more volatile and monetary policy transmission more uncertain, maintaining this deep anchor for price formation will be essential.

But as we start to understand the effects of global fragmentation and digitalisation on monetary transmission, we will have to continuously reassess our analytical frameworks. Just as in previous eras, stability should not mean rigidity.

Regular strategy reviews provide an opportunity for self-reflection. We published the results of our last strategy review in 2021, which mainly took stock of the low inflation era, and we expect to conclude the 2025 assessment of our strategy in the second half of next year.

Important elements of the previous review remain valid. In particular, we will maintain the symmetric, medium-term oriented 2% inflation target. But there are two key areas in which we need to develop our framework to be more robust in times of profound change.

First, we need to reduce as much as possible the uncertainty created by these structural shifts. We can do so by deepening our knowledge and analysis of the ongoing transformations, and how they may affect the shocks we face and the transmission of our policy.

Second, as uncertainty will nonetheless remain high, we need to manage it better.

In particular, we should reflect on how our policy framework incorporates risk assessments. While our current three-pronged policy framework provides a useful set of cross checks, the strategy review provides an opportunity to consider how to balance the information from baseline forecasts with real-time information, how to make best use of alternative scenarios, and the importance of the medium-term orientation when faced with different types of shocks.

The two main strands of our 2025 review will correspond to these goals.

First, we will look at how the economy has changed in the post-pandemic world, aiming to distinguish as best we can cyclical from structural drivers. As part of this analysis, we will consider how we can improve our analytical framework, including embedding new techniques and sources of data into our forecasts.

Increasing the use of AI will be an important element. Machine learning will help us, for example, to identify non-linearities in macro forecasting, to use large data sets for event prediction, and to improve inflation nowcasting. These advances may be especially important in relation to near-term forecasting, which is not the strength of traditional macro models.

Second, we will consider what we can learn from our past experience with too-low and too-high inflation, including for our reaction function. We will look at how our medium-term orientation can be made operational when faced with both upside and downside risks to inflation expectations.

Conclusion

Let me conclude.

History shows that structural shifts matter for monetary policy, even if their effects take time to appear. They affect how monetary policy is transmitted through the economy. And, in the past, they sometimes affected the fundamental goals that monetary policy pursued.

Today, the goals of monetary policy do not change, because a focus on price stability has been shown to be crucial in times of profound change. But that does not imply that the way in which we conduct monetary policy will remain the same.

In 1933, the Governor of the Bank of England, Montagu Norman, told his newly appointed economic advisor that “you are not here to tell us what to do, but to explain to us why we have done it.”^[36]

So, let me end by promising you this: we will not take that approach. We will draw on our best analysis, experience and knowledge, so that when change comes, we will be ready.

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