The Influence and Impact of Monetary and Fiscal Policy on Financial Markets: from Business Cycles and Monetary Aggregates via the IS-LM Model to the Policy Mix — and What Interest Rates, Bonds, and Equities Make of It

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Abstract

This paper systematises the influence and impact of monetary and fiscal policy on financial markets along a continuous chain: from business cycles and long economic waves (Kitchin, Juglar, Kuznets, Kondratieff, Schumpeter) through monetary aggregates and the quantity theory (Fisher, 1911; Friedman, 1968), the theory of inflation and deflation with its forms — creeping, galloping, and hyperinflation (Cagan, 1956), stagflation, and Fisher's (1933) debt deflation — to the objectives, instruments, and transmission channels of monetary policy (Taylor, 1993; Bernanke and Gertler, 1995) and the multipliers of fiscal policy (Keynes, 1936; Haavelmo, 1945; Barro, 1974). The IS-LM model (Hicks, 1937) is developed on a formula basis and demonstrated with a fully worked numerical example: goods market and money market equilibrium, fiscal expansion with crowding out, monetary expansion with falling rates, the liquidity trap, and the extensions to AS-AD, Mundell-Fleming, and IS-MP (Romer, 2000), together with the limits of the model class (Lucas, 1976).

A dedicated part compares the Federal Reserve and the European Central Bank — dual mandate versus price stability primacy, strategies, instruments, and governance — and places the Fed chairs since 1951, from Martin to Warsh, on the hawk-dove scale. The policy mix is developed as a four-quadrant logic of expansionary and restrictive combinations, including the conflict case of fiscal dominance (Sargent and Wallace, 1981). The market impact analysis draws on the event study literature — an unexpected 25 basis point rate cut lifts broad equity indices by around one percent (Bernanke and Kuttner, 2005) —, on the yield curve

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and QE evidence (Krishnamurthy and Vissing-Jorgensen, 2011), and on case studies from the Volcker shock through the QE era to the 2021–2023 inflation surge. The conclusion: not the level but the surprise moves markets — and the policy mix, not the single instrument, determines the regime in which bonds and equities trade.

Keywords: monetary policy · fiscal policy · IS-LM model · business cycles · Kondratieff · money supply · inflation · deflation · Taylor rule · policy mix · Fed · ECB · equity markets · interest rates

JEL codes: E31, E32, E43, E52, E58, E62, G12, G14.

Non-Technical Summary

Why does half a sentence from a central bank chief move trillions in market value, while a government's billion-euro package sometimes fizzles? This paper answers the question by explaining the two great steering levers of the economy — the monetary policy of central banks and the fiscal policy of governments — from the ground up and tracing their impact on interest rates, bonds, and equities.[2]

The structure follows a simple logic. First the frame: economies breathe in cycles — from the short inventory cycle through the investment cycle to the long Kondratieff waves carried by basic innovations such as railways, electricity, or information technology. Then money itself: what is inside the monetary aggregates M1, M2, and M3, why too much money drives prices, and why falling prices — deflation — are more dangerous than moderate inflation: expected price declines postpone purchases while debts grow in real terms; this spiral shaped the Great Depression of the 1930s and Japan's lost decades. The theory of inflation ranges from creeping price rises through the stagflation of the 1970s to the hyperinflation of Weimar 1923.

The centrepiece explains the tools: how central banks steer the economy through policy rates, bond purchases, and communication, how the Fed (dual mandate: price stability and employment) and the ECB (price stability first) differ, and which Fed chairs since 1951 acted as hawks (tight line) or doves (loose line) — from Martin through Volcker, Greenspan, Bernanke, Yellen, and Powell to Warsh. On the other side, fiscal policy: government spending and tax cuts work through multipliers, but part of the impulse fizzles when rising interest rates crowd out private investment. The classic IS-LM model brings both policies together in one picture — this paper works it through with concrete numbers.

For investors, the conclusion is what counts: markets react to surprises, not to levels — an unexpected quarter point rate cut lifts the equity market by around one percent on average. Falling rates make future profits worth more today and support valuations; deficits drive bond yields; and only the combination of both policies — the policy mix — sets the market regime. The practitioners' guideline remains valid if read correctly: don't fight the Fed — but calculate what actually surprised about the Fed.

[2] The core message in one sentence: monetary and fiscal policy set the beat of financial markets through interest rates, liquidity, and expectations; an understanding of their instruments, models, and interplay allows prices to be read as a policy response rather than as an enigma.

Contents

1 Introduction

Hardly any event moves financial markets more reliably than a central bank meeting, and hardly any figure is watched more closely in the bond markets than a government's deficit. Monetary and fiscal policy are the two great steering levers of modern economies: one sets the price of money and the liquidity of the system, the other decides the state's spending, taxes, and debt. Both act on the same quantities — growth, employment, inflation — but through different channels, with different lags, and with very different effects on interest rates, bonds, and equities. This paper develops both policies from their foundations and brings them together where they become decisive for investors: in the financial markets.[3]

The thread follows three questions. First: within which frame do the policies operate? Economies move in cycles of different length — from Kitchin's inventory cycle through Juglar's investment cycle to the long waves of Kondratieff (1926), which Schumpeter (1939) interpreted as innovation waves —, and monetary as well as fiscal policy are at heart attempts to smooth these swings. Second: how do the instruments work? Here the foundations range from the quantity theory of money (Fisher, 1911) and Friedman's (1963, 1968) monetarism through the theory of inflation and deflation to the Taylor rule (1993), the transmission channels (Bernanke and Gertler, 1995), and the fiscal multipliers (Keynes, 1936; Haavelmo, 1945; Barro, 1974; Blanchard and Perotti, 2002). The IS-LM model (Hicks, 1937) provides the analytical frame in which both policies can be studied together — this paper works it through completely with a numerical example. Third: what arrives in the markets? The event studies of Kuttner (2001) and Bernanke and Kuttner (2005), the QE evidence of Krishnamurthy and Vissing-Jorgensen (2011), and the case studies from the Volcker shock to the 2021–2023 inflation surge give the empirical answer.

The paper is structured along this logic. Chapter 2 develops the business and long economic cycles from Kitchin to Kondratieff. Chapter 3 treats money and the monetary aggregates — M1, M2, M3 — together with the quantity theory. Chapter 4 systematises inflation and deflation with their forms and explains why deflation is the more damaging development. Chapter 5 presents the objectives, instruments, and transmission channels of monetary policy; Chapter 6 compares the Fed and the ECB and classifies the Fed chairs since 1951. Chapter 7 develops fiscal policy with its multipliers, Chapter 8 the IS-LM model with a fully worked example and its extensions. Chapter 9 joins both policies into the policy mix. Chapters 10 and 11 analyse the impact on interest rates and bonds and on equity markets respectively, Chapter 12 deepens three case studies, and Chapter 13 draws the conclusion.

[3] All worked examples in this paper are hypothetical, calculated before taxes and transaction costs, and serve illustration only; the data series are drawn from the FRED database of the Federal Reserve Bank of St. Louis (as of July 2026).

2 Business and Economic Cycles: the Frame

2.1 The Family of Cycles: from Kitchin to Kuznets

Economies do not grow evenly but in waves — and business cycle research has ordered these waves by length. The shortest is the Kitchin cycle of about three to five years: the inventory cycle in which firms build and run down their stocks because production and demand are never exactly synchronous. Above it lies the Juglar cycle of seven to eleven years — the classic investment cycle, driven by the upswing and downswing of equipment investment, which Juglar (1862) was the first to read systematically out of credit and price data and which to this day corresponds to what is commonly called the business cycle. The Kuznets cycle of 15 to 25 years, finally, attaches to construction investment and demographic waves.[4]

For policy analysis, the family of cycles is more than taxonomy: monetary policy acts on the Juglar cycle — it makes investment financing dearer or cheaper —, fiscal policy stabilises the demand side of the same cycle, and both are powerless against the long waves, whose drivers are technological and demographic. A statement about policy impact therefore requires specifying which cycle is addressed.

2.2 Kondratieff: the Long Waves of Basic Innovations

The longest documented swings are the long waves of 40 to 60 years that Nikolai Kondratieff (1926) distilled from price, interest, and production series of England, France, and the United States. Schumpeter (1939), who named the waves after their discoverer, supplied the interpretation that carries to this day: each long wave is borne by a basic innovation that draws a whole investment cluster behind it — steam engine and textiles (from about 1780), railways and steel (from 1840), electricity and chemicals (from 1890), automobiles and petrochemicals (from 1940), information technology and the internet (from 1990). Figure 1 shows the schema; whether artificial intelligence and decarbonisation carry the sixth wave is the obvious, still open follow-up question.[5]

The Kondratieff thesis is empirically contested — long waves are hard to secure statistically with few observations — but as a framework for financial markets it remains valuable: basic innovations shape which sectors take index leadership, where capital demand and thus the real equilibrium interest rate come from, and in which phases exuberance becomes likely — the railway mania of the 1840s and the dotcom bubble of 2000 are the same story in different waves.

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[4] The name-givers: Joseph Kitchin (1923) identified the inventory cycle, Clément Juglar (1862) the investment cycle, Simon Kuznets (1930) the construction cycle.

[5] Kondratieff paid dearly for his theses: the Russian economist was shot in Stalin's purges in 1938 because his waves prophesied a resurgence of capitalism to socialism.

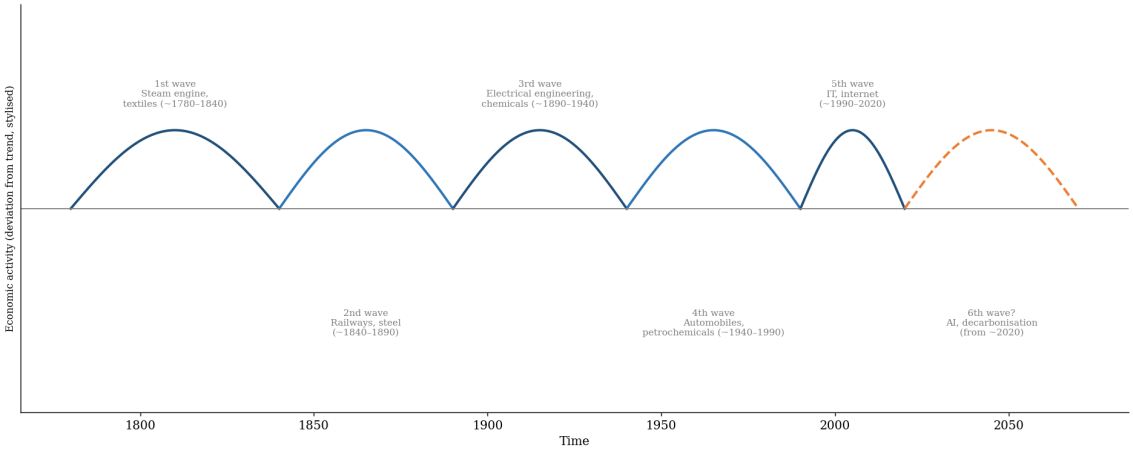

Figure 1: The long waves after Kondratieff (1926) and Schumpeter (1939): stylised depiction of the five documented waves plus a possible sixth.
Source: own illustration.

2.3 Cycles, Policy, and Financial Markets

For financial markets the cycles matter twice. First directly: profits, default rates, and risk premiums breathe with the Juglar cycle — equities typically lead the economy by six to nine months because prices trade expectations, not the present (Rupprechter, 2026f, develops the leading indicator set in detail). Second indirectly through the policy response: because monetary and fiscal policy steer against the cycle, every phase of the cycle is also a policy regime — the downswing brings rate cuts and deficits, the boom brings tightening and (more rarely) consolidation. Markets therefore always trade both: the cycle and the expected policy answer to it.[6]

With this the frame is set: the following chapters first develop the material of monetary policy — money, monetary aggregates, inflation —, then its instruments, then fiscal policy, and join both in the IS-LM model and the policy mix.

2.4 The Political Business Cycle

Alongside the economic cycles runs a political one: Nordhaus (1975) showed in a model that re-election-minded governments have an incentive to heat up the economy before elections — through spending programmes, tax gifts, and pressure on the central bank — and to shift the costs, in the form of inflation and consolidation, to the time after. The evidence is mixed, but the episodes are famous: Nixon's pressure on Fed chair Burns before the 1972 election counts as the textbook case — monetary policy stayed loose, the great

[6] The dating of US cycles is done by the NBER's Business Cycle Dating Committee; since 1945 it has counted thirteen recessions.

inflation followed (Chapter 6). It is precisely against this mechanism that the central bank independence of Section 6.4 is built.[7]

For markets, the electoral calendar is therefore part of policy analysis: fiscal impulses cluster in election years, regulatory interventions after them, and the central bank's reaction function comes under special scrutiny in campaigns. The much-quoted US presidential cycle of equity markets — weaker pre-election years, stronger election years — is statistically fragile, but the fiscal timing behind it is real and readable in the deficit paths.

2.5 Measuring the Cycle: Output Gap and Potential

Policy needs a measure of where in the cycle the economy stands — the standard concept is the output gap: the deviation of actual production from potential, that is, from the level compatible with stable inflation. Positive gaps signal overheating (inflation pressure), negative ones slack (room). The Taylor rule of Chapter 5 uses the gap directly; fiscal analysis derives from it the cyclically adjusted balances — the measure of whether a deficit is cyclical or structural.[8]

The pitfall lies in measurement: potential is unobservable and is estimated from trends, production functions, or filters — with substantial real-time revisions. The 1970s supplied the documented case: policy overestimated potential, believed the gap negative, and stimulated into the inflation. For market observers, this argues for humility toward point estimates — and for robust utilisation signals alongside: unemployment against its natural rate, capacity utilisation, wage pressure; Rupprechter (2026f) assembles the indicator set.

3 Money and the Monetary Aggregates: M1, M2, M3

3.1 Functions of Money and Money Creation

Money serves three functions: medium of exchange, unit of account, and store of value. Modern money arises to the smaller part as central bank money (cash and banks' reserves at the central bank) and to the far larger part as commercial bank deposit money: when a bank grants a loan, it credits the customer's account — money has come into being; when the customer repays, it disappears again. The central bank steers this process indirectly via the price of reserves (the policy rate), via reserve and capital requirements, and via its own balance sheet.[9]

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[7] Nordhaus (1975) formalised the suspicion: governments stimulate before elections and consolidate afterwards — the cycle follows the electoral calendar, not the economy.

[8] The revision problem is documented: real-time output gap estimates often deviate from the later final values by several percentage points — policy steers with a blurred map.

[9] Commercial bank money creation explains why the central bank steers the money supply only indirectly: it sets the price (policy rate) and the reserves, not lending itself.

This two-tier architecture explains why there is no mechanical link between monetary policy and the money supply: in the 2008 financial crisis the Fed multiplied central bank money while broad money barely grew, because lending stalled — the famous liquidity trap inside the banking system. Conversely, M2 grew by more than 25 percent within a year in the Covid response of 2020, because fiscal transfers and credit programmes landed directly in household accounts — with the consequences Chapter 4 treats.

3.2 The Definitions: M1, M2, M3 at the Fed and the ECB

The monetary aggregates are defined by degree of liquidity, from the inside out. M1 comprises immediately available money: currency in circulation and overnight deposits. M2 adds short-term savings and time deposits — money that becomes available with little effort. M3, finally, adds market-near instruments: repos, money market fund shares, and short-dated bank debt securities. The definitions differ in detail: the ECB keeps M3 as its broad reference aggregate — an inheritance of the Bundesbank tradition of monetary targeting —, while the Fed has not published M3 since 2006 and focuses on M2. Figure 2 shows, left, the US aggregates M1 and M2 on a logarithmic scale and, right, M2 growth against inflation.[10]

Two reading notes belong here. First the structural break of 2020: the jump in M1 reflects, besides the Covid money flood, a reclassification of savings accounts (Regulation D) that turned savings balances into M1 overnight — level jumps in money series are more often definition than economics. Second the sobering of fine-tuning: unstable velocity devalued the monetary targets of the 1970s and 1980s (Goodhart's law: any measure raised to a target loses its reliability); today the aggregates serve as information, not steering variables. That they carry information was shown in 2020/21: M2 growth above 25 percent was one of the earliest signals of the coming inflation surge.

[10] The Fed discontinued the publication of M3 in March 2006 — arguing the aggregate supplied no additional policy information beyond M2.

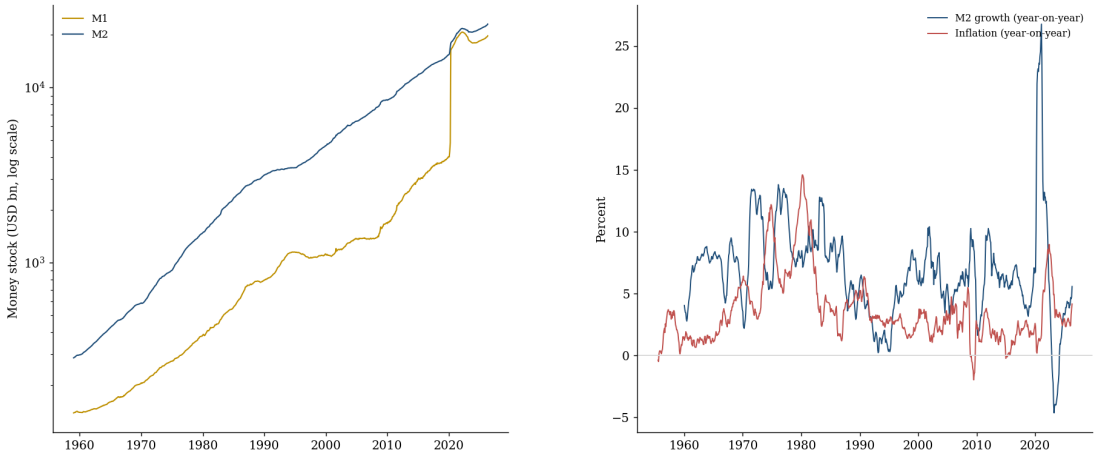

Figure 2: Left: US monetary aggregates M1 and M2 since 1959 (logarithmic scale; the 2020 jump in M1 also reflects the reclassification of savings accounts). Right: M2 growth and inflation year-on-year.
Source: FRED, own illustration.

3.3 Quantity Theory and Monetarism

The oldest link between money and prices is captured by the equation of exchange, which Fisher (1911) formalised:[11]

$$M \cdot V = P \cdot Y \tag{1}$$

Equation (1): money stock M times velocity V equals price level P times real output Y. As an identity the equation is always true; it becomes a theory with the assumption of stable velocity: then money growth above output growth passes through to prices. Numerical example: with M = 2,000 billion, V = 5, and real Y = 8,000 billion, P = 1.25 follows; if M grows by ten percent with V and Y constant, the price level rises by the same ten percent.

On this foundation Friedman (1963, 1968) built monetarism: inflation is a monetary phenomenon in the long run, monetary policy works with "long and variable lags", and the central bank cannot permanently steer real quantities — growth, employment — but can steer the price level. Friedman and Schwartz (1963) supplied the historical ammunition: their Monetary History showed that the Fed dramatically worsened the Great Depression by allowing the money stock to contract by a third — the lesson Bernanke expressly heeded in 2008. The practical limit of monetarism showed nonetheless in the 1980s: when central banks targeted monetary aggregates, V became unstable and the targets were abandoned — what remains is the long-run finding, not the policy prescription.

[11] Friedman's famous dictum: "Inflation is always and everywhere a monetary phenomenon" (Friedman, 1963) — to be read as a statement about the long run, not about every quarter.

3.4 Nominal Rate, Real Rate, and the Fisher Equation

Between money and goods mediates the interest rate — and the most important distinction of this entire paper is that between nominal and real. The Fisher equation (Fisher, 1930) connects both: the nominal rate i approximately equals the real rate r plus expected inflation π. What steers investment, consumption, and valuations is the real rate: eight percent nominal at ten percent inflation is loose policy (real rate minus two), four percent at one percent inflation is tight (plus three). The inflation years 2021/22 demonstrated it: despite the first rate hikes, real rates remained deeply negative — policy was more expansionary than the nominal rates suggested.[12]

The yardstick of assessment is the real equilibrium rate r*: if the actual real rate lies below it, policy is expansionary, above it restrictive. r* is unobservable and estimated — with considerable uncertainty and a clear trend: over the decades before Covid, r* fell toward zero in the advanced economies (demography, savings glut, weak investment), which co-explains the zero-rate decade; whether deglobalisation, defence, and climate investment lift it again is one of the most important open questions for the valuation of all asset classes — and connects the rate debate to the Kondratieff question of Chapter 2.

3.5 Central Bank Digital Currency: the Next Form of Money?

The monetary architecture of Section 3.1 may get a new storey: central bank digital currency (CBDC) — a direct claim on the central bank in digital form, so far possible for households only via cash. The motives range from securing monetary sovereignty against private stablecoins through payment efficiency to financial inclusion. The risks mirror the two-tier architecture: an unlimited, interest-bearing CBDC would be the perfect safe haven — and thus the accelerator of every bank run; the ECB's designs therefore deliberately cap holdings and keep the banks as the distribution layer.[13]

In monetary policy terms, the mechanics of this paper would remain intact — policy rate, balance sheet, expectations —, yet two shifts are conceivable: an interest-bearing CBDC would give the central bank a direct transmission channel into households (transmission without the bank filter), and the zero-bound arithmetic of Chapter 8 would shift if cash loses importance. For investors the topic is a watch-list item, not a position — but one that may shape the monetary order of the next decade.

[12] Fisher (1930) formulated the relation; the real equilibrium rate r* — the rate that neither stimulates nor brakes the economy — is its unobservable anchor and the object of ongoing estimation.

[13] The digital euro has been in its preparation phase since 2023; China has been testing the e-CNY in a large field trial since 2020, the United States is hesitant.

4 Inflation and Deflation: Forms, Causes, Dangers

4.1 The Forms of Inflation: from Creeping to Hyperinflation

Inflation is the sustained rise of the price level — and its manifestations differ so strongly that the collective term obscures more than it explains. Creeping inflation of one to three percent counts as harmless to desirable; the two percent targets of the major central banks aim at it. Trotting inflation in the mid single digits begins to distort price signals and set off wage spirals. Galloping inflation in double digits destroys the calculation basis of saving and investment — the United States reached almost 15 percent in 1980 before the Volcker shock broke expectations. Hyperinflation, finally — after Cagan (1956) from 50 percent per month — is the collapse of the money function itself: Germany 1923, Hungary 1946, Zimbabwe 2008, Venezuela 2018. Its cause is always the same: financing the state through the printing press once tax base and capital market access have collapsed.[14]

Two special forms complete the picture. Disinflation — falling but positive inflation rates — is the intended path of every stabilisation. And stagflation combines what the Keynesian orthodoxy of the 1960s held impossible: stagnation and inflation at once. The oil shocks of the 1970s supplied the precedent — a negative supply shock shifts production costs, so prices rise while the economy shrinks. The Phillips curve (Phillips, 1958), which promised a stable trade-off between inflation and unemployment, broke on this experience: Friedman (1968) and Phelps (1967) had predicted that the trade-off holds only as long as inflation expectations stay anchored — stagflation proved them right and made expectation management the core of modern monetary policy.

Table 1: Forms of inflation and deflation at a glance

Form	Magnitude	Historical example	Impact on financial markets
creeping inflation	1–3 % p.a.	advanced economies 1995–2020	ideal environment: stable valuations, low risk premiums
trotting inflation	3–10 % p.a.	US/Europe 2021–2023	rising rates depress bonds and valuations
galloping inflation	$>$ 10 % p.a.	US 1979/80, Türkiye 2022	flight into real assets, real rate losses
hyperinflation	$>$ 50 % per month	Germany 1923, Zimbabwe 2008	collapse of nominal assets, currency flight
stagflation	inflation + stagnation	oil shocks 1973–1982	equities and bonds fall together
disinflation	falling inflation	US 1982–1998, 2023–2025	supportive for bonds and equities
deflation	$<$ 0 % p.a.	US 1930–1933, Japan 1995–2013	debt burden rises in real terms; only prime bonds benefit

Source: own compilation after Cagan (1956) and Fisher (1933).

[14] Cagan's (1956) definition: hyperinflation begins when monthly (!) inflation exceeds 50 percent — equivalent to almost 13,000 percent per year.

4.2 Why Deflation Is More Dangerous than Inflation

At first glance deflation looks like a gift: everything gets cheaper. In fact it is the more damaging development, for four reasons. First, purchase restraint: expected price declines postpone purchases — demand falls, prices fall further, the expectation confirms itself. Second, the debt deflation Fisher (1933) distilled from the Great Depression: debts are fixed in nominal terms; when prices and incomes fall, the real debt burden grows, debtors sell assets, prices fall further — "the more the debtors pay, the more they owe". Third, the rigid wage side: nominal wages fall with difficulty (wage rigidity), so under deflation real wages rise above productivity and employment is cut. Fourth, the impotence of rate policy: the nominal rate can hardly fall below zero (zero lower bound) — under deflation the real rate is therefore necessarily positive and acts restrictively, precisely when stimulus would be needed (Krugman, 1998; Eggertsson and Woodford, 2003).[15]

The evidence underlines the asymmetry: moderate inflation can be broken with known means — the Volcker shock took two years and a recession. Deflation, by contrast, held the United States 1930–1933 in the deepest depression of its history and Japan in stagnation for a decade and a half: Figure 3 shows the Japanese price level, which on balance fell between 1995 and 2013, against the steady US rise. From precisely this asymmetry follows the modern inflation target of two percent instead of zero: a safety margin from the deflation zone that preserves room for rate policy above the zero bound.

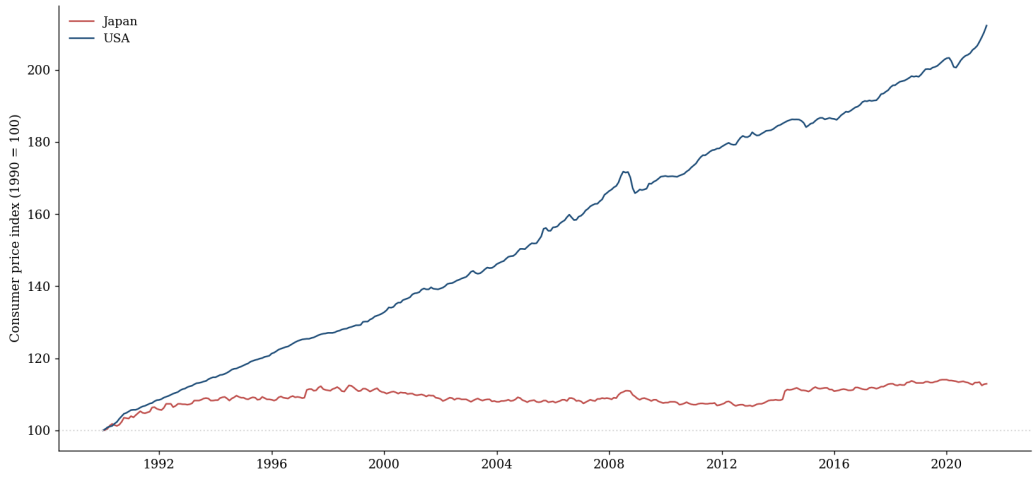

Figure 3: Deflation as lost decades: consumer price levels of Japan and the United States since 1990 (index 1990 = 100).
Source: FRED (OECD series to 2021), own illustration.

[15] Bernanke's (2002) famous speech "Deflation: Making Sure 'It' Doesn't Happen Here" made deflation avoidance explicit Fed doctrine — and announced the instruments of 2008 avant la lettre.

4.3 Measurement, Expectations, and the Role of Financial Markets

Inflation is measured by consumer price indices (CPI and the Fed-preferred PCE deflator in the US, the HICP in Europe), whose core variants exclude energy and food to separate trend from noise. For policy, expectations matter alongside: surveys, economists' forecasts, and above all the market-based breakeven rates from inflation-linked bonds. Anchored expectations are a central bank's true capital — as long as markets believe in the target, wage and price setting stay disciplined and temporary shocks run out instead of settling in.[16]

For investors the inflation assessment is directly valuation-relevant: rising inflation hits bonds mechanically (Chapter 10) and equities via discount rate and margins (Chapter 11); the inflation blocks of Rupprechter (2026a) — linkers, real assets, gold — are the construction answer. The years 2021 to 2023 supplied the most recent documented case: the rise of US inflation above nine percent in June 2022 and the Fed's answer — rate hikes of more than five percentage points — shaped every asset class for two years (Chapter 12).

4.4 The Causes: Demand-Pull, Cost-Push, and Imported Inflation

For analysis and policy response the cause is decisive. Demand-pull inflation arises when aggregate demand exceeds productive potential — typical after a doubly expansionary policy mix such as 2021: too much money meets too few goods. Against it, the brake of demand policy works directly. Cost-push inflation comes from the supply side — oil 1973, gas and supply chains 2021/22 —: prices rise while production falls, the stagflation pattern of Section 4.1. Against it, rate policy is a blunt, costly tool: it breaks the second-round effects, not the shock. Imported inflation, finally, comes via the exchange rate and world market prices — for small open economies often the dominant channel, and the reason currency weakness is never neutral for monetary policy.[17]

Practice mixes the forms, and policy must decompose: the 2021–2023 surge was initially mostly supply-driven but was perpetuated by the demand component — in the end the central banks fought less the energy price than the danger that expectations and wage rounds detach from the two percent world. For market observers the decomposition is tradable: supply inflation hits bonds and equities together, demand inflation at first only the bonds — the correlation regime of portfolio construction hangs on exactly this distinction.

[16] Breakeven inflation is the yield difference between nominal and inflation-linked bonds of equal maturity — the market price of inflation expectations.

[17] The wage-price spiral is the amplifier of both forms: prices lift wage demands, wages lift costs — it becomes dangerous when expectations come loose.

4.5 Measuring Inflation: Basket, Core Rates, Perceived Inflation

Before policy reacts to inflation, it must be measured — and measurement is more consequential than it looks. Consumer price indices weight a basket whose components (housing, energy, services) vary across countries and time: the US CPI weights housing via imputed owners' rents far more heavily than the European HICP, which so far largely excludes owner-occupied housing — one reason transatlantic inflation comparisons limp. Core rates without energy and food filter the noise, trimmed-mean and median measures still more aggressively; central banks read a whole bundle to separate trend from shock.[18]

Added to this is the gap between measured and perceived inflation: households overweight frequent purchases (groceries, fuel) and underweight rare price declines (electronics) — perceived inflation runs far ahead of measured in shock phases. That matters politically, because expectations (Section 4.3) form on perceived inflation: survey measures in 2022 rose faster than any core rate, and central banks had to communicate against this perception too. For market observers: at meetings the core rate counts, in the wage process the perceived one — both belong on the dashboard.

4.6 Anatomy of a Hyperinflation: Weimar 1923

The German hyperinflation of 1923 remains the principal documented case of monetary collapse. The chain: war financing through debt instead of taxes, after 1918 reparations and political blockade of any consolidation, finally the direct financing of state deficits by the Reichsbank — the fiscal dominance of Chapter 9 in pure form. From the summer of 1922 money demand dissolved: holdings of marks lost value by the hour; velocity exploded (the quantity equation of Chapter 3 with rising V), wages were paid daily and spent immediately, and by November 1923 a loaf of bread cost hundreds of billions of marks. Wealth in nominal claims — bonds, savings books, life insurance — was wiped out; real assets, foreign currency, and equities protected partially, but with wild distortions.[19]

Equally instructive is the ending: the stabilisation of November 1923 — Rentenmark, a more independent central bank, a credible budget order — worked almost overnight because it changed the regime, not merely the money stock (Sargent, 1982). The double lesson for this paper: hyperinflation is always a twin fiscal-monetary failure — and expectations tip quickly in both directions once the institutional frame makes it credible.

[18] The difference between the US measures is systematic: the PCE deflator runs on average about three tenths below the CPI because it accounts for substitution and different weights — the Fed target refers to the PCE.

[19] Sargent (1982) analysed the end of four hyperinflations: they were ended not by monetary tightening alone but by the credible regime change of the fiscal order.

5 Monetary Policy: Objectives, Instruments, Transmission

5.1 Objectives and Trade-offs

The primary objective of modern monetary policy is price stability, today almost universally operationalised as a two percent inflation target. Behind it stand — equal or subordinate depending on the mandate — employment, cycle smoothing, and financial stability. The hierarchy of goals is no formality; it decides in moments of conflict: if inflation rises into a slowdown (stagflation), a pure price stability bank must tighten, while a dual mandate may weigh — the core of the difference between ECB and Fed that Chapter 6 develops.[20]

The theoretical foundation of today's architecture — independent central bank, explicit target, transparent communication — lies in the time inconsistency literature: Kydland and Prescott (1977) and Barro and Gordon (1983) showed that a policy that case-by-case puts employment above price stability ends up harvesting only higher inflation without employment gains, because markets see through the incentives and anticipate them. Credibility is therefore not ornament but the working capital of monetary policy — and explains why central banks take expectation management as seriously as rate setting.

5.2 Conventional Instruments

The classic instrument set has three components. First the policy rate: the price at which banks refinance at the central bank (or earn on reserves) — it anchors the short end of the yield curve and radiates via expectations to all maturities. Second, open market operations: buying and selling securities against reserves, by which the central bank keeps system liquidity and the money market rate on target. Third, reserve requirements, today a marginal instrument (the Fed set them to zero in 2020) but historically a strong credit lever — China's central bank uses it actively to this day.[21]

Added to this is the quiet infrastructure: standing facilities as rate ceiling and floor, the lender of last resort function after the Bagehot rule (lend freely, against good collateral, at penalty rates), and the role as guardian of the payment system. In calm times none of this is visible; in crises this infrastructure decides whether a liquidity problem becomes a systemic crisis — Rupprechter (2023) traces it for 2007–2009.

[20] Kydland and Prescott (1977) and Barro and Gordon (1983) established why rule-bound, independent central banks achieve lower inflation: discretionary policy suffers from the time inconsistency problem.

[21] In the ECB's corridor system the marginal lending and deposit rates cap the money market rate from above and below; the Fed has steered since 2008 via interest on reserves (floor system).

5.3 Unconventional Instruments: QE, Forward Guidance, Negative Rates

At the zero bound conventional policy ends — the answer of the 2010s was a new arsenal. Quantitative easing (QE) buys government and other bonds at scale and presses term premiums via the portfolio rebalancing channel: investors whose safe paper the central bank buys move into riskier assets — yields fall, valuations rise (Krishnamurthy and Vissing-Jorgensen, 2011; Gagnon et al., 2011). Forward guidance binds expectations: the pledge to keep rates low "for an extended period" lowers long rates today, because these bundle the expected short rates (expectations hypothesis, Chapter 10). Negative rates, finally — ECB, Switzerland, Japan, Scandinavia — pierced the supposed zero floor and priced reserve holding, with contested net effects on bank margins.[22]

The decade's balance sheet is double-edged: the instruments plausibly prevented the deflation spiral of Chapter 4 after 2008 and 2020 — and at the same time inflated central bank balance sheets and asset prices, with distributional and stability side effects whose unwinding (quantitative tightening) has been writing its own chapter since 2022. For investors the core lesson is simple: beyond the policy rate the central bank commands instruments with direct, measurable market impact — QE announcements were among the strongest price movers of the decade.

5.4 The Taylor Rule: Policy as Formula

How much interest fits which situation? The most influential answer came from Taylor (1993) with his rule:[23]

$$i = r^* + \pi + 0.5 \cdot (\pi - \pi^*) + 0.5 \cdot y \qquad (2)$$

Equation (2): the policy rate i results from the real equilibrium rate r*, current inflation π, the inflation gap (π − π*), and the output gap y — both with weight 0.5. Numerical example: with r* = 2, π = 4, target π* = 2, and an output gap of +1 percent, i = 2 + 4 + 1 + 0.5 = 7.5 percent follows. Decisive is the Taylor principle: to one percentage point more inflation the rule answers with 1.5 points more interest — the real rate rises, policy actually brakes. Central banks that react more weakly destabilise expectations (Clarida, Galí, and Gertler, 2000).

As a market tool the rule serves twice: it supplies the reference path against which actual policy can be classified as loose or tight — the gap between the Taylor rate and the policy rate was one of the loudest warning signals in 2021/22, when the rule had long

[22] Krishnamurthy and Vissing-Jorgensen (2011) quantify the yield effect of the first QE programmes at roughly 30 to 100 basis points depending on maturity and programme.

[23] Taylor (1993) calibrated the rule on Fed policy 1987–1992; it describes policy, it does not prescribe it — as a reference benchmark it is nonetheless ubiquitous.

demanded hikes while the Fed was still buying —, and it disciplines the own forecast: estimated inflation and growth paths permit computing the implied rate path the markets should be pricing.

5.5 Transmission Channels: How the Rate Reaches the Economy

Between the rate decision and the price effect lies transmission — a bundle of channels that Bernanke and Gertler (1995) mapped. The interest rate channel is the classic: higher real rates make investment and durable consumption dearer. The credit channel amplifies it: tightening worsens balance sheets and collateral values, banks lend more restrictively — the effect hits small, bank-dependent borrowers disproportionately. The asset price channel works through the markets themselves: rates move equity and property values (Tobin's q; Tobin, 1969; Chapter 11), and wealth effects steer consumption. The exchange rate channel exports the tightening: higher rates appreciate the currency, dampen exports, and import price discipline. The expectations channel, finally, is the fastest: communication moves the whole yield curve before a single basis point has actually changed.[24]

For market analysis the most important guideline of this paper follows: financial markets are not the receiver at the end of the transmission chain but its first link. Yield curve, equity valuation, and exchange rate react on announcement day — the real economy follows with quarters of delay. A study of policy effects on markets must therefore measure surprises, not decisions — the programme of the event studies in Chapter 11.

5.6 The Decision Process: Meetings, Projections, Data Dependence

Monetary policy is made in a meeting calendar the markets know by heart: eight FOMC dates and eight ECB Governing Council meetings per year, flanked by projections, press conferences, minutes, and speeches. The decision logic is data dependent: inflation and labour market reports shift the expected reaction function — which is why the release dates of the statistics (Rupprechter, 2026f, maps them) belong to the most volatile market hours. Between meetings, central bankers recalibrate by speech; in the quiet periods before meetings (blackout), the market itself takes over the interpretation.[25]

For investors the process is as important as the outcome because it structures expectation formation: fed funds futures and OIS curves translate every data release into implied rate paths against which the decision is then measured — the surprise metric of Chapter 11. The market reaction to a meeting is explained by three quantities: the decision, the previously priced expectation, and the shift of the expected path afterwards.

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[24] The lags are substantial: the literature puts six to 24 months until a rate change acts fully on output and prices — Friedman's "long and variable lags".

[25] The Fed "dot plot" — the anonymous rate projections of FOMC members — appears quarterly and is, despite all methodological caveats, the most traded communication signal of monetary policy.

5.7 Monetary Policy and Financial Stability: the Trade-off of the 2020s

The tightening of 2022/23 exposed a trade-off the textbooks long neglected: price stability versus financial stability. Years of zero rates had pushed interest rate risk into every book — banks with long-dated bond holdings, pension schemes with LDI leverage, treasuries with short refinancing. When rates rose, the weakest links tore first: the gilt-LDI cascade of 2022, the US regional banks around Silicon Valley Bank in March 2023, the emergency takeover of Credit Suisse. The central banks' answer was the separation principle: liquidity facilities against the instability, the rate course against the inflation — both at once, instead of sacrificing the tightening.[26]

Whether the separation always holds is the open flank: markets test it with the notion of the "Fed put" — the expectation that the central bank eases on market stress. Every episode in which stability aid coincides with easing feeds the reflex and lowers risk premiums ex ante — the moral hazard echo of Rupprechter (2023) at system level. For investors this means: financial stability events are policy events, and the central bank's response to the next stress is part of every duration and equity position.

5.8 What Works How Strongly? The Empirical Measurement

How large are the effects really? The workhorses of measurement are vector autoregressions (Sims, 1980), which estimate from the data how output and prices respond to a rate shock. The consensus magnitudes: an unexpected tightening of 100 basis points lowers US output over one to two years by roughly half to one percent, and prices with delay and more weakly — with the notorious price puzzle as a reminder of how much the results hang on identification. Modern approaches sharpen them with high-frequency data: the rate surprise is measured in the narrow window around the meeting (Kuttner, 2001) and fed into the estimation as a clean shock.[27]

For the fiscal side, the narrative and VAR approaches (Blanchard and Perotti, 2002; Ramey, 2011) deliver the multipliers of Chapter 7. The cross message of both literatures is the same and central for investors: the effects are real but delayed, state dependent, and estimated with wide error bands — what markets trade is the current consensus about these uncertain quantities, and revisions of this consensus are themselves price events.

[26] The Silicon Valley Bank case (March 2023): rising rates devalued the bond book, deposit flight forced sales — the Fed answered with a dedicated facility (BTFP) without abandoning the tightening course.

[27] Sims (1980) founded the VAR methodology that carries the measurement of monetary policy effects to this day; the identification of the shocks remains its Achilles heel.

6 The Fed and the ECB: Two Mandates, Two Cultures

6.1 Mandates and Strategies Compared

The Federal Reserve has carried a dual mandate since 1977: price stability and maximum employment, on equal footing. The European Central Bank, by contrast, has a clear primary objective — price stability — to which all further goals (support of general economic policy) are expressly subordinated; thus the Maastricht treaties, which shaped the ECB after the Bundesbank model. The difference is palpable in conflict situations: in the 2022 stagflation the ECB could invoke inflation, while the Fed officially had to weigh — and in downswings the Fed traditionally eases earlier and more aggressively.[28]

The strategies too bear different signatures. The Fed announced flexible average inflation targeting in 2020: after phases of too-low inflation, inflation may temporarily run above two percent — a doctrine that co-shaped the late reaction of 2021. The ECB switched in 2021 to a symmetric two percent target and kept its two-pillar analysis of an economic and a monetary pillar — the Bundesbank inheritance of monetary observation from Chapter 3 lives on there. Common to both is expectation management as a core instrument: projections (the Fed "dot plot"), press conferences, and minutes are today as market-moving as the decisions themselves.

6.2 Governance, Instruments, Particularities

The decision architecture differs in detail: at the Fed the Federal Open Market Committee (FOMC) votes — seven governors plus five rotating presidents of the twelve district banks, New York permanent —, at the ECB the Governing Council of six Executive Board members and the national central bank governors (with voting rotation since 2015). The practical difference lies in the heterogeneity of the currency area: the ECB sets one policy for twenty economies with different cycles, fiscal positions, and banking systems — the fragmentation risk, which does not exist in this form in the US, bred its own instruments from the OMT programme of the Draghi era to the Transmission Protection Instrument (2022).[29]

In the instruments themselves the two houses have converged: rate corridor or floor system, bond purchases, forward guidance, targeted long-term operations (the ECB's TLTROs). The difference lies in the forbidden: the ECB is contractually barred from monetary financing of governments — the debate over where bond purchases end and state

[28] The ECB strategy review of July 2021 replaced the old aim of "below, but close to, two percent" with a symmetric two percent target; the Fed had introduced flexible average inflation targeting (FAIT) in 2020.

[29] Whatever it takes: Draghi's three words of 26 July 2012 compressed Spanish and Italian risk spreads by hundreds of basis points within weeks — communication as an instrument in pure form.

financing begins occupied the German Constitutional Court and the European Court of Justice for years and remains the political Achilles heel of European monetary policy.

6.3 The Fed Chairs since 1951: Hawks and Doves

Since the Treasury-Fed Accord of 1951, which released the Fed from pegging rates for the war debt and founded its modern independence, nine chairs have shaped US monetary policy. Table 2 places them on the hawk-dove scale — hawks weight inflation fighting more heavily, doves the support of growth and employment. Figure 4 lays the associated rate and inflation history beneath: Martin's discipline, Burns's and Miller's leniency before the great inflation, Volcker's break, the long moderation under Greenspan, the crisis decade of Bernanke and Yellen, Powell's turn from the dovish course of 2020/21 to the sharpest tightening since Volcker — and the handover to Warsh in May 2026.[30]

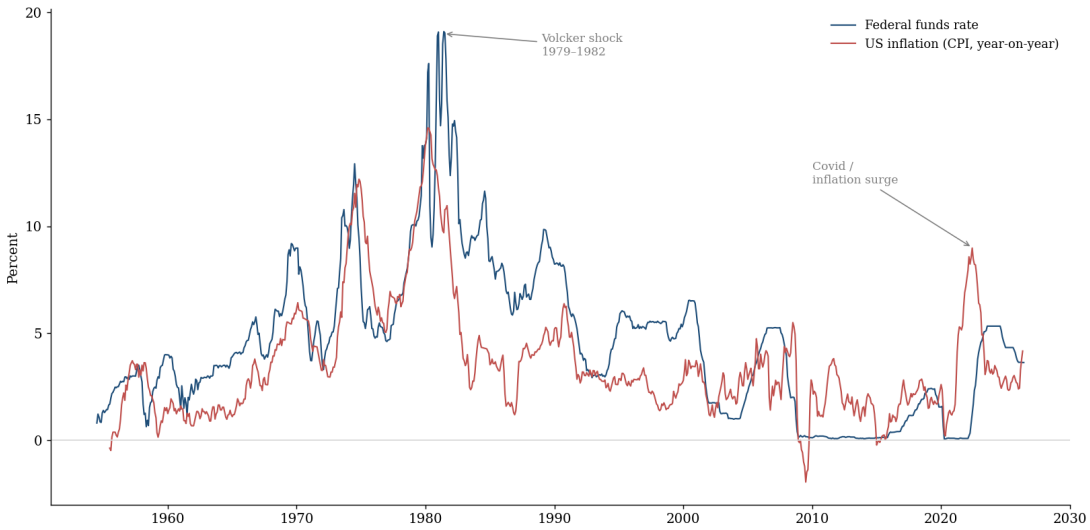

Figure 4: Federal funds rate and US inflation since 1955: the rate history of Table 2 — from the Volcker shock to the post-Covid inflation surge.
Source: FRED, own illustration.

[30] The hawk-dove classification necessarily condenses: every term knows both phases — decisive is the dominant reaction tendency in the conflict between inflation and growth concerns.

Table 2: Fed chairs since 1951 and their monetary policy line

Chair	Term	Line	Defining
William McChesney Martin	1951–1970	hawk	"Take away the punch bowl just as the party gets going"; postwar rate discipline
Arthur F. Burns	1970–1978	dove	yielded to Nixon's political pressure; onset of the great inflation
G. William Miller	1978–1979	dove	shortest term; inflation headed for double digits
Paul Volcker	1979–1987	hawk	broke inflation with policy rates up to 20 percent — at the price of the 1981/82 recession
Alan Greenspan	1987–2006	mixed	"maestro" of the great moderation; late easings fed the "Greenspan put" critique
Ben S. Bernanke	2006–2014	dove	deflation scholar; QE and zero rates as the answer to the financial crisis
Janet L. Yellen	2014–2018	dove	most cautious rate lift-off in history; labour market focus
Jerome H. Powell	2018–2026	mixed	Covid zero rates and FAIT, then from 2022 the sharpest tightening since Volcker
Kevin M. Warsh	since 2026	hawk	long-time QE critic; took office May 2026 with a tightening reputation

Source: own classification following the literature; terms per the Federal Reserve.

The pattern of the table is itself a lesson: lenient phases (Burns, Miller) were followed by costly correction (Volcker), long easing (2009–2021) by the sharpest rate cycle in four decades. For markets the change of chair is therefore a valuation event of the first order — the reaction function of the world's most important central bank is recalibrated, and with it the discount rate of every asset class.

6.4 Independence and Credibility as Market Quantities

Independence is not an end in itself but the institutional answer to the time inconsistency problem of Section 5.1 — and empirically associated with lower inflation (Alesina and Summers, 1993). For markets it is a priced quantity: episodes of political pressure on the central bank — from Nixon and Burns through the Türkiye of the 2020s to the attacks on Powell — show up in inflation expectations, term premiums, and exchange rates. The 2025/26 succession debate over Powell's successor was read by the bond markets accordingly as a credibility test.[31]

The lesson for investors: central bank institutions belong in country risk like debt and the current account. Where the reaction function is politicised, inflation and currency risk premiums rise — and the rule developed in Rupprechter (2026a), to hedge foreign currency bonds, gains additional weight.

[31] Alesina and Summers (1993) showed the famous negative correlation between central bank independence and inflation across the advanced economies — without a growth penalty.

6.5 Brief Portraits: Bank of Japan, Bank of England, Swiss National Bank

Three further houses complete the picture. The Bank of Japan fought the deflation of Chapter 4 after the 1990 bubble burst as the first modern central bank — and in doing so devised the instruments others later adopted: zero rates, QE, negative rates, finally the steering of the entire curve (yield curve control). Its cautious exit from 2024 — the first rate hike in 17 years — moved global capital flows, because Japanese investors are among the world's largest creditors. The Bank of England, oldest of the modern central banks, showed in the 2022 gilt crisis the double role of inflation fighting and financial stability: it temporarily bought bonds in the middle of a tightening cycle to stop the LDI collapse — lender of last resort and inflation guardian at once. The Swiss National Bank, finally, demonstrates the special role of the small open economy: the franc floor of 2011–2015, the world's deepest negative rates, and a balance sheet of currency reserves that at times exceeded GDP.[32]

The comparison sharpens the systematics: mandates resemble one another, but size, openness, and financial structure of the economy determine which instruments carry — and for globally diversified investors, policy divergence between the houses (who tightens, who eases) is one of the most reliable drivers of the currency markets.

6.6 The Dollar Cycle: the Fed as the World's Central Bank

Fed policy does not end at the US border. The dollar is the world's invoicing, funding, and reserve currency: commodities trade in dollars, emerging markets borrow in dollars, and global lending breathes with US funding costs. When the Fed tightens, the dollar appreciates — and exports the tightening: dollar debts become dearer in real terms, capital flows out of the emerging markets, whose central banks must follow suit whether their own cycles allow it or not. Rey (2015) mapped this global financial cycle; the tightening phases of 1980–1985 (Latin American debt crisis), 2013–2015 (taper tantrum), and 2022 supplied the illustrations.[33]

For portfolio practice the dollar cycle is a risk axis of its own: emerging market bonds and equities are implicit short dollar positions, commodities trade inversely to the dollar, and the global profits of US corporations mirror it. As a guideline, every global allocation implies a position on the dollar — whether aware of it or not; Rupprechter (2026a) treats the hedging question in detail.

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[32] The Bank of Japan was the laboratory of unconventional policy: zero rates 1999, QE 2001, yield curve control 2016 — each years before the other major houses.

[33] Rey (2015) put it pointedly: the global financial cycle follows the Fed — for open economies the trilemma becomes a dilemma: independent monetary policy only with capital controls.

7 Fiscal Policy: Spending, Taxes, Multipliers

7.1 Instruments and Working Logic

Fiscal policy steers the economy through the budget: on the spending side via government consumption, public investment, and transfers, on the revenue side via taxes and levies. A policy is expansionary if it raises the deficit — more spending or lower taxes —, restrictive if it consolidates. The working path is more direct than the monetary one: an additional government outlay is demand immediately, a tax cut raises disposable incomes that are partly spent. In this "partly" sits the entire multiplier analysis of the next section.[34]

The practical limits are threefold. First the lags: recognition, decision, and implementation lags make discretionary fiscal policy sluggish — which is why the automatic stabilisers (Section 7.4) are so valuable. Second the political asymmetry: expansion is popular, consolidation is not — deficits therefore have a structural upward drift (Buchanan and Wagner, 1977). Third the financing question: every deficit is issuance of government debt, and the bond markets price the path — the link to Chapter 10.

7.2 Multipliers: the Arithmetic

The Keynesian base calculation (Keynes, 1936) formalises how a spending impulse runs through the economy: of a euro received from the state, the share c is spent (marginal propensity to consume), the recipient again c of that, and so on. For an economy with income tax rate t:[35]

$$\Delta Y = \Delta G \,/\, (1 - c\cdot(1 - t)) \tag{3}$$

Equation (3): the spending multiplier. Numerical example: with c = 0.8 and t = 0.25 the denominator is $1 - 0.8\cdot0.75 = 0.4$ — every spending euro creates 2.50 euros of demand. The tax cut works more weakly: its first impulse runs through consumption (factor c), the multiplier is $c/(1 - c\cdot(1 - t)) = 2.0$ — part of the tax cut is saved before it becomes demand. From this also follows the Haavelmo theorem (1945): even a fully tax-financed spending programme is expansionary, because the spending multiplier exceeds the tax multiplier.

Modern evidence has trimmed and conditioned the textbook values: Blanchard and Perotti (2002) established the VAR identification of fiscal shocks, Ramey (2011) finds spending multipliers mostly between 0.8 and 1.5, and the post-crisis research shows the decisive state dependence: in normal times the central bank dampens the impulse (it tightens against the

[34] The difference to monetary policy in one sentence: fiscal policy acts directly on demand but with political decision paths; monetary policy decides fast but works indirectly through rates and expectations.

[35] Empirically the estimates scatter considerably: Ramey (2011) finds spending multipliers between 0.8 and 1.5; at the zero bound distinctly more (Christiano, Eichenbaum, and Rebelo, 2011).

extra demand — the crowding out of Chapter 8), at the zero bound, however, when monetary policy holds still, multipliers rise above one (Christiano, Eichenbaum, and Rebelo, 2011). The policy mix thus co-determines the effect of fiscal policy — the theme of Chapter 9.

7.3 Ricardian Equivalence and the Limits of Debt Illusion

Against the Keynesian arithmetic stands a classical objection: if the state borrows today, it must tax tomorrow — forward-looking households therefore save today's tax cut for tomorrow's tax burden, and the impulse fizzles. This Ricardian equivalence (Barro, 1974) holds under strict assumptions — perfect capital markets, infinite planning horizon, lump-sum taxes — that reality only partly meets: liquidity-constrained households spend transfers largely at once, as the Covid cheques of 2020/21 showed. The evidence therefore finds partial Ricardianism: multipliers are smaller than in the naive model but clearly larger than zero.[36]

For financial markets the debate is no footnote: whether a fiscal package is read as a growth impulse (good for equities, bad for bonds) or as mere debt shifting (yield surcharge without growth) hangs on exactly this judgement — and on the credibility of long-run sustainability, which Chapter 10 treats as a market quantity.

7.4 Automatic Stabilisers and Debt Sustainability

The most reliable fiscal policy is decided by no one: progressive taxes and unemployment insurance stabilise automatically — in the downswing tax payments fall and transfers rise, the deficit widens, demand is supported without any parliament sitting. These automatic stabilisers are stronger in Europe with its larger public sectors than in the US — one reason US recessions trigger larger discretionary packages.[37]

The limit of all fiscal policy is sustainability. Its core quantities: debt ratio, primary balance, and the difference between interest and growth ($r - g$). As long as nominal growth exceeds the average interest rate, an economy can run moderate primary deficits without the ratio rising (Blanchard, 2019) — the constellation of the 2010s. When the sign flips, as after 2022, consolidation becomes a market condition: the gilt crisis of 2022 (Chapter 10) showed how quickly bond markets price incredible fiscal plans. Sustainability is thus not an academic but a tradable quantity.

[36] Barro (1974) formalised the idea in "Are Government Bonds Net Wealth?" — the model's answer is no, the evidence's: partially.

[37] The sustainability arithmetic in one sentence: if the interest rate exceeds nominal growth ($r > g$), stability needs primary surpluses; if it lies below, growth carries (Blanchard, 2019).

7.5 Fiscal Rules: from Maastricht to the Debt Brake

Because deficits are politically attractive (Section 7.1), states bind themselves to rules. The European architecture began with Maastricht (deficit at most three, debt at most 60 percent of GDP), was operationalised in the Stability and Growth Pact, repeatedly suspended in crises, and fundamentally reformed in 2024; Germany added the constitutional debt brake in 2009, Switzerland has lived with its expenditure rule since 2003. The record of rule-binding is mixed: it disciplines in normal times but breaks in crises — and its credibility decides whether markets read the break as exception or as regime change.[38]

For the bond markets, fiscal rules are part of price formation: the euro area spreads price the distance between rule and reality, and reforms of the rules are price events. At the same time, rule-binding shifts the burden of stabilisation to monetary policy — the constellation of "gas amid consolidation" of Chapter 9 that shaped the European post-crisis decade, raising the question whether the division of labour can run the same way in the next crisis.

7.6 The State as Investor: Public Investment and Growth

Not every government euro is equal: consumption spending works once, investment twice — as demand today and as productive capacity tomorrow. Public infrastructure (transport, networks, education, research) lifts private productivity; Aschauer (1989) estimated the effect early and provocatively high, and the follow-up literature confirmed it at more moderate size. This is why modern fiscal rules increasingly distinguish between consumptive and investment spending (the golden rule), and why investment programmes carry higher multipliers than transfers — especially when, at the zero bound, they flow into underused capacity.[39]

The 2020s have brought the state as investor back on stage: chips, infrastructure, and climate programmes in the US, NGEU and defence budgets in Europe. For markets this reads twice — sectoral profit impulses (Section 11.4) and structurally higher capital demand that can lift the real equilibrium rate of Section 3.4: today's investment wave is tomorrow's interest rate level.

[38] The 2024 reform individualised the EU rules: instead of uniform deficit and debt paths, country-specific expenditure paths with four- to seven-year adjustment plans apply.

[39] Aschauer (1989) triggered the debate on the productivity of public infrastructure; the follow-up literature confirms positive but smaller effects than his original estimates.

8 The IS-LM Model: Both Policies in One Picture

8.1 The Goods Market: the IS Curve

Hicks (1937) cast Keynes's General Theory into the diagram that carries every textbook to this day: two curves in rate-output space whose intersection gives the overall equilibrium. The IS curve collects all combinations of interest rate r and output Y at which the goods market is in equilibrium — planned expenditure equals output. It slopes down: a higher rate depresses investment and rate-sensitive consumption, hence equilibrium Y. The numerical example of this paper uses consumption C = 200 + 0.75·(Y − T), investment I = 300 − 20·r, government spending G = 300, and taxes T = 200:[40]

$$IS: \quad Y = 2{,}600 - 80 \cdot r \tag{4}$$

Equation (4): inserting the behavioural equations into the equilibrium condition Y = C + I + G yields 0.25·Y = 650 − 20·r, hence the IS curve. Its slope carries the policy message: the more rate-sensitive investment (here: 20 units per rate point) and the larger the multiplier (here 1/0.25 = 4), the flatter the curve — and the more strongly monetary policy acts on output.

8.2 The Money Market: the LM Curve

The LM curve collects the combinations at which the money market clears: money demand — rising in income (transactions motive), falling in the rate (opportunity cost of holding liquidity; Keynes's speculative motive) — equals the real money supply M/P set by the central bank. With money demand L = 0.25·Y − 25·r and M/P = 500:[41]

$$LM: \quad Y = 2{,}000 + 100 \cdot r \tag{5}$$

Equation (5): solving 500 = 0.25·Y − 25·r for Y. The LM curve rises: more output raises money demand; at a given money supply the rate must rise until the money market clears again. If the central bank raises M/P, the LM curve shifts right — more liquidity at every income level means lower rates.

8.3 The Equilibrium and the Numerical Example

The intersection of both curves is the overall equilibrium: the only point at which goods and money market clear simultaneously. In the example, equating (4) and (5) yields r =

[40] IS stands for investment = saving: on the curve, planned investment and saving — equivalently: planned expenditure and output — are in accord.
[41] LM stands for liquidity preference = money supply: on the curve, money demand equals money supply.

3.33 percent, Y = 2,333. Table 3 summarises the base scenario and the two policy experiments of the next sections; Figure 5 draws them.[42]

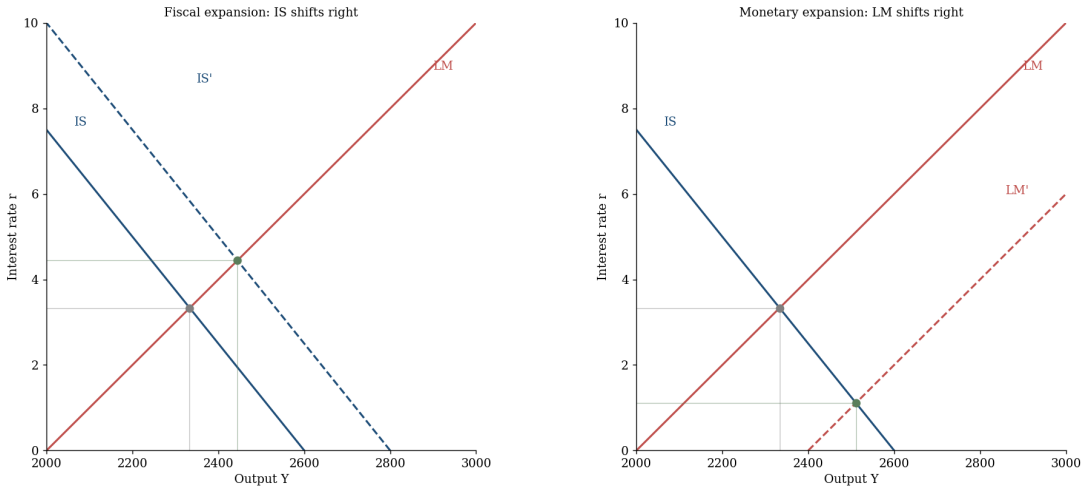

Figure 5: The IS-LM model in the numerical example: fiscal expansion (left, IS→IS′) and monetary expansion (right, LM→LM′); grey the starting point, green the new equilibrium.

Table 3: IS-LM numerical example: base scenario and policy experiments

Scenario	Rate r	Output Y	Mechanics
Base (G = 300, M/P = 500)	3.33 %	2,333	IS = LM: goods and money market clear
Fiscal expansion (G +50)	4.44 %	2,444	IS right; rate rises, crowding out dampens
Monetary expansion (M/P +100)	1.11 %	2,511	LM right; rate falls, investment picks up

Source: own calculation following Equations (4) and (5).

8.4 Fiscal Policy in the Model: Multiplier versus Crowding Out

If the state raises spending by 50, the IS curve shifts right — in the simple multiplier model of Chapter 7 by a full 4·50 = 200. The new equilibrium, however, delivers only ΔY = 111: the rate rises from 3.33 to 4.44 percent, the higher financing costs displace private investment — crowding out here eats 89 of the 200 units, almost half the textbook impulse. Exactly this mechanism explains the state dependence of the multipliers from Section 7.2: how much is displaced hangs on how strongly rates react — and thus on monetary policy.[43]

For markets the experiment reads twice: bonds see the rate side — more issuance, higher yields —, equities the demand side with a discount rate haircut. Whether a fiscal expansion is net equity-friendly hangs on the mix of profit impulse and discount effect — the valuation mechanics of Chapter 11.

[42] All values rounded; the units are index quantities of a stylised model, not billions of a concrete economy.
[43] Complete crowding out — the classical case — arises with a vertical LM curve: then every government euro displaces exactly one private investment euro.

8.5 Monetary Policy in the Model — and the Liquidity Trap

The counter-experiment: the central bank raises the real money supply by 100. The LM curve moves right, the rate falls from 3.33 to 1.11 percent, cheaper financing lifts investment, Y rises by 178 to 2,511. In the model, monetary policy thus works through the interest channel of Chapter 5 — and its strength hangs on the rate sensitivity of investment: with a flat IS curve the same rate cut moves more output.[44]

The famous exception is the liquidity trap: with rates near zero the LM curve becomes flat — additional money is held rather than invested, and monetary expansion no longer shifts anything. Keynes had sketched the case, Japan supplied the illustration (Krugman, 1998), and from 2009 to 2015 all major central banks operated in exactly this zone — the reason for the unconventional instruments of Section 5.3 and at the same time the case in which fiscal policy unfolds its greatest effect: without a rate reaction, crowding out disappears and the multiplier rises above one (Christiano, Eichenbaum, and Rebelo, 2011).

8.6 Extensions: AS-AD, Mundell-Fleming, IS-MP

Three extensions make the model fit for practice. The AS-AD model adds the price side: the IS-LM equilibrium becomes the aggregate demand curve, which meets a short-run upward-sloping, long-run vertical supply curve — allowing inflation and the long-run neutrality of monetary policy to be depicted: demand policy moves only prices in the long run, not output. The Mundell-Fleming model (Mundell, 1963; Fleming, 1962) opens the economy: with free capital movement and a flexible exchange rate, monetary policy is powerful (depreciation reinforces it), fiscal policy weak (appreciation crowds out exports) — with a fixed rate exactly the reverse. That explains why the same policy has opposite market effects in different currency regimes.[45]

The IS-MP model (Romer, 2000), finally, replaces the money supply rule with a rate rule in Taylor's spirit: the central bank sets the real rate as a function of inflation and the output gap. That is closer to practice and makes the reaction function — the central object of market expectations — explicit. The limits of the whole model class were marked by Lucas (1976): behavioural parameters are not policy invariant, so that calculating new policies with historical multipliers understates the adjustment of expectations. For market practice this means: models order the direction, the magnitude comes from ongoing evidence.

[44] Krugman (1998) revived the liquidity trap to explain Japan; Eggertsson and Woodford (2003) formalised the role of expectation management at the zero bound.

[45] Romer (2000) replaced the LM curve with a rate rule (MP curve), because modern central banks set rates, not money stocks — the IS-MP model is today's textbook standard.

8.7 From Textbook to Practice: What IS-LM Still Delivers

The IS-LM model can be underestimated in two ways: by taking it for reality — or for obsolete. Properly used it is an ordering instrument of the first rank: it answers in seconds in which direction a policy impulse pushes rate and output, where crowding out looms, and when the zero bound flips the rules — the questions that are answered wrongly in market commentary every day. Its known limits — static expectations, missing price dynamics, the Lucas critique — mark at the same time where the successors start: the New Keynesian models replace the LM curve with the rate rule (IS-MP) and add an expectations-based Phillips curve; the central banks' DSGE models give the whole a microeconomic foundation.[46]

For the investor the practical translation matters more than the model dispute: before any positioning on a fiscal package or a central bank meeting, the IS-LM minute pays — which market clears anew here, which curve shifts, what does that mean for rate, currency, and valuation? Chapters 10 and 11 are the worked-out answer to precisely this question.

8.8 AS-AD in Action: Playing through Shocks

The AS-AD frame comes alive in the shock test. A negative demand shock — financial crisis, consumption slump — shifts the AD curve left: output and prices fall together; the policy answer is easy because both goals demand the same direction: expand. A negative supply shock — oil price, supply chains — shifts the AS curve left: prices rise, output falls — the stagflation signature, in which every policy violates one goal: expansion supports output and drives prices, tightening the reverse. Exactly this asymmetry explains why the oil shocks of the 1970s tore policy apart and why in 2022 the central banks first hesitated (hoping for a transitory supply shock) and then braked hard (fearing de-anchoring).[47]

In the long run the vertical AS curve restores order: output returns to potential, demand policy acts only on prices — the neutrality of money as the anchor of all expectations. For market assessment the shock signature is the fastest indicator: if prices and output rise together, the market trades reflation (equities over bonds); if they diverge, the stagflation regime looms in which both classic asset classes lose (Table 1).

[46] In the forecasting departments, DSGE and semi-structural models have replaced the IS-LM frame; as a framework for the first order of effects it remains unreplaced.

[47] The mnemonic: demand shocks move output and prices in the same direction, supply shocks in opposite directions — by this signature policy recognises what it is dealing with.

9 The Policy Mix: Interplay and Conflict

9.1 The Four Combinations

Monetary and fiscal policy never act alone — markets always trade their combination. Figure 6 orders the four quadrants: the double boost — both expansionary — is the reflation regime of the Covid response 2020/21: maximum demand impulse, weak currency, steep curve, supportive for risk assets — and the seed of the following inflation. The double brake — both restrictive — is the austerity regime of the euro area 2011–2013: the ECB hiked twice in 2011 while fiscal policy consolidated — the double-dip recession was the receipt. In between lie the tension regimes: gas amid consolidation (ECB QE under fiscal rules, 2014–2019) supported bonds and equities alike on a flat curve; brake against gas — restrictive monetary with expansionary fiscal policy — shaped Reaganomics 1981–1984 as well as the US 2022–2024: high real rates, strong currency, rising term premiums.[48]

Figure 6: The policy mix as a four-quadrant logic with historical episodes.
Source: own illustration.

9.2 Coordination, Conflict, Fiscal Dominance

In the normal case the policies divide labour: fiscal policy sets medium-term priorities, monetary policy stabilises cyclically — and where rates reach the zero bound, they swap roles. Conflicts arise when the impulses run against each other: if fiscal policy expands into an inflationary situation, the central bank must brake harder than otherwise — the US

[48] Assigning concrete episodes necessarily simplifies; decisive is the dominant impulse of the respective phase.

2022–2024 paid for it with higher real rates than the inflation picture alone would have demanded.[49]

The extreme case is fiscal dominance (Sargent and Wallace, 1981; Leeper, 1991): when the debt burden weighs so heavily that monetary policy in effect serves government financing, rate hikes lose credibility — markets read them as the prelude to later monetisation. Historical examples range from the hyperinflations of Chapter 4 to present-day emerging markets; the debate over how close advanced economies with debt ratios above 100 percent come to this zone is perhaps the most important open question of the 2020s — and a standing theme of the bond markets (Chapter 10).

9.3 Regime Investing: the Policy Mix in the Portfolio

The four-quadrant logic translates into portfolio language. In the double boost risk assets carry: equities broadly, cyclical sectors, emerging markets; bonds suffer from reflation — short duration, linkers as protection. In the brake-against-gas regime high real rates rule: quality equities with pricing power over levered growth names, the strong currency weighs on foreign earnings, and the again positive bond yield competes with the equity (the end of TINA). Gas amid consolidation is the bond regime: falling yields, flat curves, duration gets paid, valuation expansion carries the equities. The double brake, finally, is the regime of cash and quality — rare and mostly short, because politically hardly sustainable.[50]

Two warnings belong here. First the transitions: the return is made at the regime changes, and those can be dated only in hindsight — which is why Rupprechter (2026a) recommends bands instead of all-or-nothing bets. Second the expectations trap of Chapter 11: regimes everyone sees are priced — what trades is the deviation from the expected path, not the path itself.

9.4 The Policy Mix at a Glance

Table 4 condenses the four-quadrant logic with typical market effects — as a reading aid for the impact chapters 10 and 11.[51]

[49] Sargent and Wallace (1981) called it "unpleasant monetarist arithmetic": without fiscal discipline even a determined central bank loses control of the price level.

[50] Regime assignment is easy in hindsight and hard in real time; the discipline of bands and rebalancing from Rupprechter (2026a) therefore remains the foundation.

[51] The table condenses Chapters 9 to 11; the assignments denote tendencies across whole regimes, not forecasts for single years.

Table 4: Policy mix regimes and typical market impact

Regime (monetary / fiscal)	Example	Rates/bonds	Equities
expansionary / expansionary	Covid 2020/21	short end pinned, curve steepens; reflation risk	broadly supportive; cyclicals and emerging markets lead
restrictive / expansionary	Reaganomics; US 2022–2024	high real rates, rising term premiums	valuation pressure; quality over levered growth
expansionary / restrictive	euro area 2014–2019	falling yields, flat curve; duration carries	valuation expansion despite earnings lull
restrictive / restrictive	euro area 2011–2013	yields rise at first, then recession rally	bear market; defensives and cash

Source: own compilation; stylised regime assignment.

10 Impact on Interest Rates and Bond Markets

10.1 From the Policy Rate to the Yield Curve

Monetary policy directly sets only the shortest rate — everything else is done by expectations. Under the expectations hypothesis, long rates bundle the expected short rates plus a term premium for rate and inflation risk. From this follows the curve logic of policy cycles: early tightening lifts the short end and flattens the curve; if the market expects the brake to work (or overshoot), it inverts — the classic recession signal that also preceded the downswing after the 2022/23 inflation surge. Easing steepens the curve from the short end. Kuttner (2001) decomposed the daily effect cleanly: expected rate moves barely move the curve — surprise moves pass through fully. For the bond practice (Rupprechter, 2026a) this means: duration is always also a bet on the central bank's reaction function.[52]

QE extends the mechanics by the stock side: when the central bank buys maturities out of the market, it presses the term premium directly — by 30 to 100 basis points in the first programmes (Krishnamurthy and Vissing-Jorgensen, 2011; Gagnon et al., 2011) —, and quantitative tightening has been slowly reversing the effect since 2022.

10.2 Fiscal Policy in the Bond Market: Deficits, Premiums, Discipline

For the bond market, fiscal policy is supply and risk at once: deficits mean issuance, and rising debt ratios demand — beyond a credible path — higher term and credit premiums. The empirical guidelines are moderate (a few basis points per percentage point of debt ratio) but nonlinear: as long as sustainability is beyond question, the market absorbs much; once credibility tips, it prices quickly and brutally. The gilt crisis of autumn 2022 — unfunded tax cuts, forced LDI sales, emergency intervention by the Bank of England —

[52] The expectations hypothesis in one sentence: the ten-year rate is at heart the average of expected short-term rates plus a term premium.

was the demonstration in real time; in the euro area, the spreads between Bunds and the periphery have performed the same disciplinary function permanently since 2010.[53]

The link to monetary policy closes the circle of Chapter 9: the same deficit path is bearable while the central bank buys and becomes expensive when it runs off — the yield rises of 2022–2024 were the coincidence of QT and heavy issuance. Bond investors therefore always trade both balance sheets: the state's and the central bank's.

10.3 The Yield Curve as a Forecasting Tool

Because the curve bundles expectations, it is itself a forecasting tool. The most robust finding: when the curve inverts — short rates above long —, a recession follows within four to six quarters with a high hit rate; Estrella and Mishkin (1998) documented the link canonically, and the inversions before 2001, 2008, and the downswing after 2022 kept the series alive. The logic is monetary: inversion means the market expects today's tightening to force cuts — the curve prices the policy error before the statistics show it.[54]

The refinements belong here: which spread (three months against ten years predicts better than two against ten), the role of the term premium (QE-distorted curves invert more easily — a reason for caution in interpreting the post-2022 episode), and the lead variability from a few months to two years. As a component in the indicator set of Rupprechter (2026f), the curve nonetheless remains the densest single business cycle signal the markets provide.

10.4 Credit Markets: Spreads as a Policy Seismograph

Between government bonds and equities lies the credit market — and it reacts to policy with double sensitivity. Tightening works on corporate bonds through both components: the risk-free rate rises, and the spread widens because refinancing becomes dearer and the growth outlook dimmer — with leverage in the high yield segment. QE worked in reverse all the way into spreads, especially where central banks bought corporate bonds directly (the ECB from 2016, the Fed in the exception year 2020): the mere announcement of the Fed facilities in March 2020 turned the market before anything substantial was bought — expectation effect in pure form.[55]

As an analytical indicator, spreads often lead the equity market: they widen when refinancing jams — the early warning before 2008 and in the autumn of 2018 —, and the excess bond premium (Gilchrist and Zakrajšek, 2012) distils the risk appetite component

[53] The documented case of 2022: the British "mini-budget" of 23 September triggered a rise in gilt yields of around 100 basis points within days and forced both government and Bank of England into U-turns.

[54] Estrella and Mishkin (1998) showed that curve steepness predicts US recessions at a four-quarter horizon better than any other single indicator.

[55] Gilchrist and Zakrajšek (2012) showed that their excess bond premium — the spread component not explained by default risk — forecasts activity and lending.

from them. For portfolio practice, an early reading of the policy effect on risk assets is obtained from the credit curve — it trades the same story as the equity market, only more soberly.

11 Impact on Equity Markets

11.1 The Valuation Channel: Discount Rate and Earnings

Equity prices are discounted earnings expectations — monetary policy therefore works twice: through the discount rate and through earnings. The discount side is shown by Gordon's (1962) growth model:[56]

$$P = D \,/\, (r - g) \tag{6}$$

Equation (6): price P as the present value of the growing payout D. Numerical example: if the discount rate r falls from 8 to 7 percent at growth g = 3 percent, the justified price-payout ratio rises from 20 to 25 — a valuation gain of 25 percent for a single rate point. The leverage explains why rate-sensitive growth stocks (distant cash flows, high duration) react most strongly to policy turns — demonstrated in both directions in 2022.

The earnings side runs through the transmission of Chapter 5: easing supports demand, margins, and credit availability — with the familiar lags. Fiscal policy acts more directly on earnings: government demand is revenue, tax cuts lift after-tax profit mechanically — the US corporate tax reform of 2017 (rate from 35 to 21 percent) lifted S&P 500 earnings in the following year by an estimated seven to ten percent; sectorally, spending programmes act as targeted profit impulses (infrastructure, defence, energy).

11.2 The Evidence: Surprises Move Prices

The event study literature has measured the market effect precisely. The standard finding of Bernanke and Kuttner (2005): an unexpected cut of the federal funds rate by 25 basis points lifts broad US equity indices by around one percent on announcement day — while expected moves move practically nothing. The decomposition is even more revealing: the price gain comes mostly not through lower risk-free rates but through a falling equity risk premium — monetary policy acts on risk appetite itself. The same logic carries central bank communication: press conferences, minutes, and projections are measurable price events, and the pre-FOMC drift (Lucca and Moench, 2015) shows how deeply the Fed calendar is inscribed in market microstructure.[57]

[56] The counterforce belongs in the picture: rate cuts mostly come in downswings — the lower discount rate then meets falling earnings expectations, making the net effect situation-dependent.

[57] Lucca and Moench (2015) also documented the pre-FOMC drift: for decades a substantial part of the equity premium accrued in the 24 hours before Fed decisions.

For practice follows the central distinction of this paper: level is not news. Not the rate step moves the market but its deviation from expectation — measurable in futures prices before the meeting. Translating policy impact into positions therefore requires knowing the priced expectation, not merely the decision.

11.3 Don't Fight the Fed — Read Correctly

The old market rule has a true core: across whole easing and tightening cycles equity returns differ markedly — falling rates were historically the better environment, and the great bear markets (1974, 1981, 2000, 2008, 2022) fell into or followed tightening phases. But the rule needs two corrections. First the surprise logic of Section 11.2: priced policy is no information — in 2024/25 markets rose into rate cuts that had long been expected. Second the reason for the policy: cuts into recession (2001, 2008) helped only after a long lead, because the earnings side dominated; insurance cuts with growth intact (1995, 2019) carried immediately. Not the Fed's direction but the interplay of policy, cycle, and expectation makes the regime.[58]

Sectorally the policy effect rotates: rate-sensitive growth names and real estate hang on the discount rate, banks on curve steepness and the credit cycle, value and commodity names on the inflation side — the policy mix of Chapter 9 is thus also a sector map, and the style rotation logic of Rupprechter (2026a) receives its macroeconomic foundation here.

11.4 Fiscal Policy in the Equity Market: Sectors, Taxes, Programmes

Fiscal policy acts on equities more granularly than monetary policy: it has addressees. Tax policy shifts everyone's after-tax profits — the US reform of 2017 lifted S&P 500 earnings noticeably in the following year, and the debates over minimum taxes and buyback levies work through the same channel in the opposite direction. Spending programmes act sectorally: infrastructure packages lift construction and materials, defence budgets the defence names, industrial policy à la chips and climate legislation whole value chains — the announcements of 2021/22 produced measurable revaluations of the favoured sectors. Transfers, finally, support consumption broadly — the Covid cheques flowed within weeks into retail and, visibly in the broker data, into the equity markets themselves.[59]

The other side is the financing: the same programmes mean issuance and — depending on the policy mix — rate pressure; whether the profit impulse or the discount effect prevails is the valuation question of Section 11.1. As a guideline, targeted sectoral fiscal policy is a selection theme; broad, deficit-financed packages are a rate and hence a valuation theme for the whole market.

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[58] The rule stems from Martin Zweig (1970): "Monetary conditions exert an enormous influence on stock prices" — including the often forgotten second half: "Don't fight the tape."

[59] The event logic applies here too: legislative packages act on prices as soon as their probability of passage rises — not only at entry into force.

11.5 Liquidity and Risk Premiums: the Market Channel beyond Valuation

Beside discount rate and earnings, policy works through a third, often underrated channel: market liquidity itself. QE swaps yield-bearing bonds for reserves and pushes investors up the risk ladder; QT reverses the flow. Net liquidity — central bank balance sheet minus the treasury's account minus parked reverse repo money — correlated conspicuously with the valuation levels of the riskiest market segments in the QE era; crisis moments like the repo stress of 2019 or March 2020 showed how quickly liquidity withdrawal turns into price dislocations.[60]

Bernanke and Kuttner's (2005) finding that rate cuts mainly compress the risk premium fits here: monetary policy steers risk appetite — through collateral values, the funding costs of arbitrage, and the sheer availability of investment-seeking money. For practice this implies monitoring, alongside the rate path, the balance sheet policy where equity risk is held — the quiet QT billions act over months like a second, silent rate hike.

12 Three Case Studies

12.1 The Volcker Shock 1979–1982

When Paul Volcker took office in August 1979, US inflation was heading for 13 percent and expectations had come loose after a decade of leniency. Volcker changed the operating procedure — targeting bank reserves instead of the rate —, let the federal funds rate run to around 20 percent at the peak, and held the course through two recessions (1980, 1981/82) with unemployment above ten percent. Inflation fell below four percent by 1983 — and stayed anchored: the shock bought the credibility on which the following two decades of the "great moderation" drew.[61]

The market lessons: bonds first suffered historic losses and then — from the yield peak of 1981 — began the greatest bond bull market in history; equities went through the 1981/82 bear market and, in August 1982, when the turn became visible, started an 18-year bull run. The case shows the asymmetry of credibility: losing it is cheap, buying it back costs a recession.

[60] The liquidity assessment belongs to meeting preparation: balance sheet run-off, the treasury's issuance calendar, and the fill level of the reverse repo facility together determine the system's net liquidity.

[61] Goodfriend and King (2005) reconstruct the episode as a purchase of credibility: the recession costs were the price of two decades of anchored expectations.

12.2 Financial Crisis and the QE Era 2008–2015

The answer to 2008 combined every register: policy rates to zero, liquidity facilities after the Bagehot rule, three Fed QE programmes, forward guidance — and fiscally the 2009 stimulus package. Measured against the deflation risk of Chapter 4 the policy succeeded: unlike 1930–33 and unlike Japan, deflation did not come and expectations held. The euro area supplied the counter-programme of Chapter 9: the double brake of 2011–2013 prolonged the crisis until "whatever it takes" (2012) and the QE programme (2015) brought the turn.[62]

For markets the decade founded a regime of its own: yields fell to historic lows (at times negative for a third of the global government bond market), valuation levels rose — TINA: "there is no alternative" to equities —, and every growth dip was traded with easing expectations ("bad news is good news"). The costs became visible later: stretched valuations, interest rate risk in every book, and the vulnerability that the 2022 rate shock then hit.

12.3 Covid, Inflation Surge, and Tightening 2020–2024

The Covid response of 2020 was the double boost of Chapter 9 in pure form: zero rates, unlimited QE, and fiscal packages of together around five trillion dollars in the US alone — M2 grew by more than a quarter in 2020/21 (Chapter 3). When reopened demand met disrupted supply chains in 2021, inflation took off; the central banks at first deemed it "transitory" — the FAIT doctrine of Chapter 6 also acted as a brake on the brake —, and the Taylor rule of Chapter 5 had long pointed up while the Fed was still buying. The correction from March 2022 then became the sharpest tightening since Volcker: more than five percentage points within 16 months, plus QT.[63]

The market impact rehearsed almost every theme of this paper: in 2022 bonds and equities fell together — the stagflation pattern of Table 1 that gave 60/40 portfolios their worst year in decades —, rate-sensitive growth stocks lost according to their duration (Equation 6), the dollar appreciated (Mundell-Fleming), and the gilt crisis showed fiscal discipline at work (Chapter 10). The disinflation of 2023–2025 without a deep recession — the much-discussed soft landing — and the handover to Warsh in 2026 closed the cycle; whether expectations stay durably anchored will decide the next.

[62] The balance sheet numbers: the Fed balance sheet grew from about 900 billion dollars (2007) to 4.5 trillion (2015); the ECB followed with the APP from 2015 and negative deposit rates from 2014.

[63] The decomposition of the surge remains a research subject; supply chains, energy prices, and the demand-side money flood each contributed substantially by most estimates.

12.4 The Synthesis: What the Three Cases Teach Together

Across their differences the case studies carry four common lessons. First: expectations are the true target variable — Volcker broke not inflation but inflation expectations, and 2021 became expensive because expectation management ("transitory", FAIT) fell behind the data. Second: the policy mix makes the regime — the same monetary policy works entirely differently with expansionary fiscal policy (2020/21) than with consolidation (euro area 2011–2013). Third: markets run ahead of the statistics — the bond turn of 1981, the equity turns of 1982 and 2009, the curve inversion of 2022: waiting for confirmation from the data was late in every case. Fourth: the costs of correction grow with the delay — the longer a policy lags the situation, the harder the adjustment, for the economy as for portfolios.[64]

With this the arc closes to the paper's opening question: the influence and impact of the policies on markets are not anecdote but system — and the system can be learned. The conclusion condenses it.

13 Conclusion and Outlook

The influence and impact of monetary and fiscal policy on financial markets can in the end be captured in one chain. Economies swing in cycles — from the inventory cycle to Kondratieff's long waves —, and both policies are answers to these swings: monetary policy through the price and quantity of money, whose aggregates M1 to M3 supply the assessment and whose adverse forms range from galloping inflation to the more dangerous deflation; fiscal policy through spending, taxes, and deficits with their multipliers, crowding out, and Ricardian damping. The IS-LM model joins both in one picture — the worked example of this paper shows the fiscal expansion nearly halved by the rate rise, the monetary expansion that carries through the rate cut, and the liquidity trap in which the roles swap. The impact on markets runs through expectations: surprises move prices — around one percent of equity gain per unexpected 25 basis point cut —, levels do not.[65]

For practice three guiding principles remain. First: trade the policy mix, not the instrument — the same rate cut means different regimes for bonds, equities, and currencies in different four-quadrant constellations. Second: measure the surprise, not the decision — priced policy is no information, and the reaction function (Taylor reference, mandate, chair) matters more than the single step. Third: respect the asymmetries — deflation is harder to cure than inflation, credibility is lost faster than bought back, and fiscal sustainability is priced nonlinearly: for a long time not at all, then suddenly.

[64] The three episodes cover the three foundations: credibility (Volcker), deflation defence (2008), policy mix and surprise (2020–2024).

[65] This paper serves informational and educational purposes only; it does not constitute an investment recommendation.

The limits of this paper are at once its outlook. The models — from IS-LM to the Taylor rule — order directions, not point forecasts; the Lucas critique remains the standard warning. The debt ratios of the developed world move the question of fiscal dominance from the textbook chapter to the market question. And whether artificial intelligence and decarbonisation really carry the sixth Kondratieff wave will decide, through the real equilibrium interest rate, the coordinates of both policies for the coming decades. The markets' answer will, as always, arrive earlier than the statistics'.

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