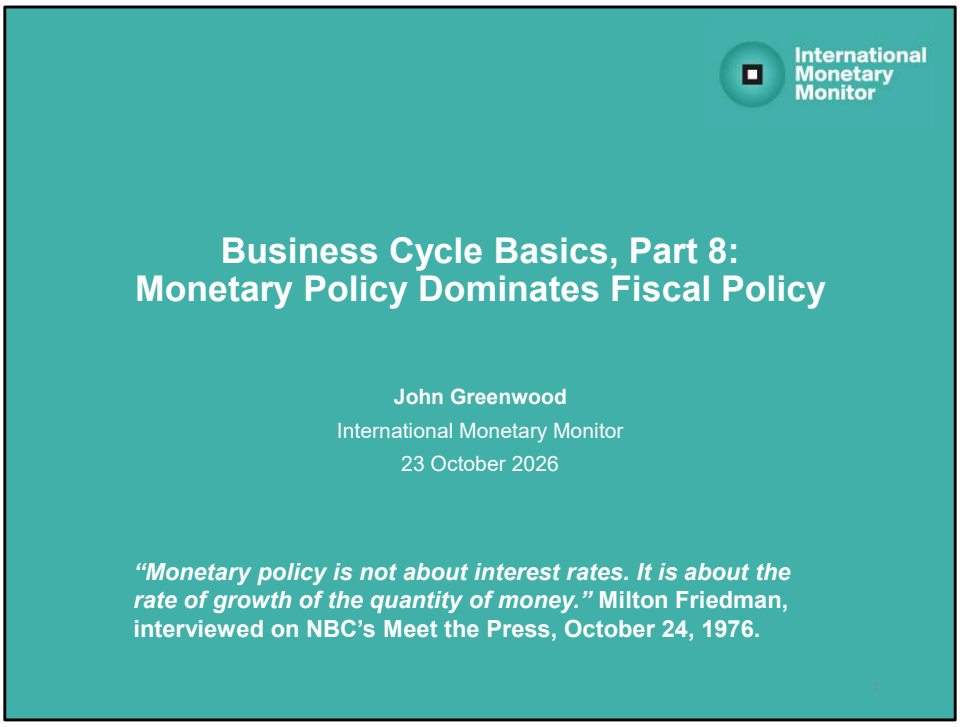

Due to the widespread surge in government indebtedness following the GFC of 2007-09 and the Covid pandemic of 2020-22, financial market commentaries and academic debating forums are full of discussion about some of the possible consequences: the erosion of financial stability, inflation, financial repression, and/or government defaults. A popular phrase encapsulating these anxieties is that the world is entering an era of "fiscal dominance".

Before allowing ourselves to be carried away with these notions it is desirable to consider (1) whether it is fiscal spending and deficits that determine national income (or nominal spending and its components -- real GDP and inflation), or whether there are other more powerful drivers of national income; and (2) if fiscal policy is not the dominant force in the economy, what is its proper role in a market-based economy?

In this extension of my Framework notes, I will argue that far from entering a period of fiscal dominance, developed and emerging economies alike face a world in which – as in the past – monetary policy continues to dominate fiscal policy, at least for key outcomes such as the shape of the business cycle, nominal spending and inflation.

The Interaction of Fiscal & Monetary Policy: A Framework for Analysis

International Monetary Monitor

	MONETARY POLICY	
FISCAL POLICY	Expansionary	Contractionary
Expansionary	Type A Monetary & fiscal policy In same direction → Inflation	Type B Monetary & fiscal policy In opposite directions → Outcome ?
Contractionary	Type C Monetary & fiscal policy In opposite directions → Outcome?	Type D Monetary & fiscal policy In same direction → Lower inflation → Or Deflation

Towards the end of his life Milton Friedman set out the following challenge to economists: "One of the things I have tried to do over the years is to find cases where fiscal policy is going in one direction and monetary policy is going in the opposite. In every case the actual course of events follows monetary policy. I have never found a case where fiscal policy dominated monetary policy, and I suggest to you as a test to find a counter-example." Responding to Friedman's challenge, I have devised the 2x2 matrix shown here and in subsequent pages, to be populated with expansionary and contractionary episodes of monetary and fiscal policy. Friedman's contention is that where monetary and fiscal policy are both either expansionary or contractionary (as in cells A and D), there is no doubt about the likely outcome for nominal national income or inflation, but where monetary and fiscal policy are acting in opposite directions (as in cells B and C), monetary policy invariably dominates.

Importantly, monetary policy is measured not by interest rates, but by sustained and substantial changes in the rate of growth of broad money, and fiscal policy is measured by changes in the fiscal surplus or deficit as a fraction of GDP or national income. Where the fiscal balance is not available, I have used the change in government debt.

The Interaction of Fiscal & Monetary Policy: Classic Cases from International Monetary History

International Monetary Monitor

	MONETARY POLICY	
FISCAL POLICY	**Expansionary**	**Contractionary**
Expansionary	**Type A** **Kennedy Tax Cut 1963,** **Inflation up.** **China's CNY 4 trillion fiscal stimulus, 2008-10,** **Inflation up.**	**Type B** **US: President Ronald Reagan's Tax Cuts and Increased Defence Spending, 1981-86.** **Inflation down.**
Contractionary	**Type C** **Britain's 1931 Budget, Economy recovered,** **Deflation stopped.** **Britain's 1981 Budget: Infamous letter from 364 economists** **Economy revived despite tax increase.**	**Type D** **Japan's Matsukata Deflation, 1881-85.** **Deflation enabled restoration of silver standard.** **Japan's Dodge Line, 1949.** **High inflation ended.**

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To give some flavour of the results from a range of countries and eras, the matrix above shows seven episodes from the US, the UK, Japan and China from the 19th century to the recent past. To keep the results simple, in each case I have summarised the outcomes in terms of a single variable such as inflation or real GDP growth (in green).

As Friedman correctly surmised, in every case, and especially in Type B and Type C episodes, it was the direction of monetary policy that dominated, not fiscal measures. More details of each episode are presented below, but the key take-away is that fiscal policy hardly seems to matter for changes in growth or inflation. How can that be?

The answer is that an increase in the fiscal deficit can only be financed in three ways – by taxation, by borrowing, or by the printing of money. In the first two cases funds (and hence spending) are simply transferred from the private sector to the public sector and therefore have no expansionary effect on total spending. The so-called fiscal multipliers are close to zero. But in the third case, additional money creation (or reduced money creation) is an act of monetary policy which increases (or decreases) total nominal spending or its growth.

The Interaction of Fiscal and Monetary Policy: A Framework for Analysis

International Monetary Monitor

	MONETARY POLICY	
FISCAL POLICY	Expansionary	Contractionary
Expansionary	Type A Monetary & fiscal policy In same direction → Inflation	Type B Monetary & fiscal policy In opposite directions → Outcome ?
Contractionary	Type C Monetary & fiscal policy In opposite directions → Outcome?	Type D Monetary & fiscal policy In same direction → Lower inflation → Or Deflation

How can it be that a decrease in taxes is not inflationary? The answer is that the usual analysis of the tax decrease is only half the story. It is true that if taxes are reduced, then tax-payers have more to spend. So far as that goes, that does increase the pressure of demand.

But we have to look at the other side of the government's accounts. If the government continues to spend what it otherwise would have, it now has to borrow more in order to finance it. If it raises $10 billion less in taxes, it needs to get financing from other sources of $10 billion more.

If the increased fund-raising from other sources occurs because it borrows $10 billion more, then that means that those who would have loaned that $10 billion to private sector borrowers -- firms or households -- now have $10 billion less to spend to maintain consumption, or to lend to somebody else. Tax-payers have more; potential (private sector) borrowers have less.

So far as that goes, there is no net effect of a tax decrease on the funds available. In this case, the effect of the tax decrease will be to raise interest rates, but it will not directly increase spending. It will mean that people who would otherwise have loaned the funds to the private sector will now be lending to the government. Private sector borrowers will be crowded out.

What does the data show?
Was Friedman's hypothesis validated?

International Monetary Monitor

- Every case documented here conforms to Friedman's hypothesis…
- i.e. fiscal policy -- *on its own* – is not effective in changing Nominal GDP or inflation…
- …*unless* supported by monetary policy acting in the same direction…as in Cases A & D.
- Significantly, wherever fiscal policy was in one direction, but monetary policy was in the opposite direction, as in Cases B & C, it was ***always*** monetary policy that dominated.

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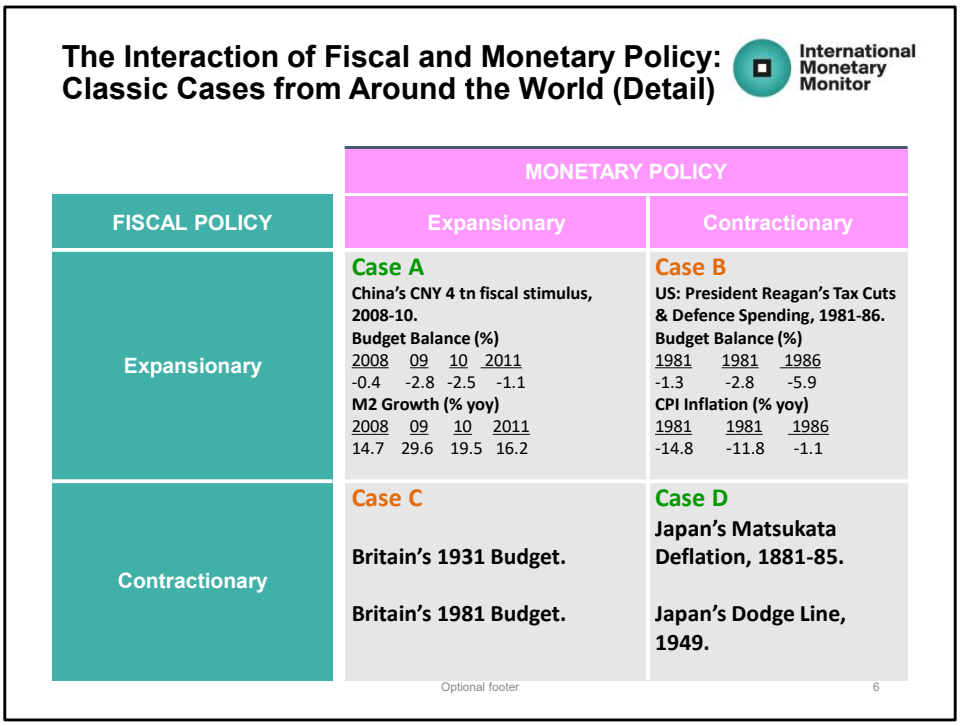
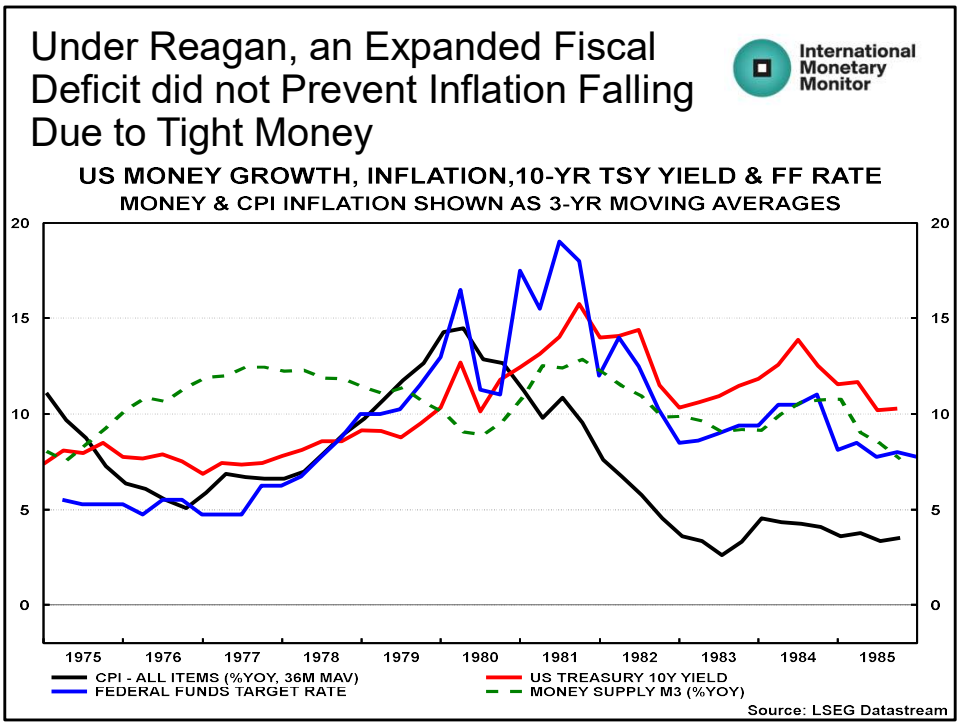
It is worthwhile spelling out the policy implications of these results.
Monetary policy (i.e. monetary growth) determines Nominal GDP or total spending.
Fiscal policy only determines the division of total spending between private and public sectors.
It is therefore misguided to use fiscal policy to boost Nominal GDP or total spending while monetary policy (i.e. broad money growth) remains unchanged, or if broad money growth is moving in the opposite direction.
Friedman's argument therefore makes a sound case for fiscal austerity even in recession *provided* that it is accompanied by monetary expansion. *(This was the case of the famous UK Budget of 1981.)*



China's highly successful "fiscal stimulus" of 2008-10 (Case A in the matrix above) contrasts starkly with the response of western economies to the Great Recession of 2008-09. However, the interesting part of the story is that although the central government of China announced a huge fiscal stimulus plan amounting to CNY 4 trillion, or 6.5% of China's GDP at the time, the central government only increased its deficit from 0.3% of GDP in 2008 to 1.8% in 2009 (according to the IMF's database of cyclically adjusted budget balances, or CABB). Most of the boost to activity and spending came from provincial governments, many of which set up local government financing vehicles (LGFVs) to borrow from the banking system. In short, rather than funding the additional spending by taxation or borrowing, most of it was in fact financed by new credit and money creation.

As a result, M2 and bank credit increased enormously over the two years 2009-10. Average growth of M2 over this period was 25% p.a. compared with about 15% p.a. before the crisis. As Friedman would no doubt have pointed out, while Chinese fiscal policy was mildly expansionary in 2008 and 2009, monetary policy was highly expansionary. The outcome was that China's stock market doubled in 2009, there was a surge in house prices and commodity prices, together with a strong economic recovery. In addition, annual consumer price inflation increased from -1.8% in July 2009 to 6.5% in 2011.

By contrast, despite huge budget deficits of 10% of GDP and more in western economies, interest rates being lowered to almost zero, and large-scale QE, the recoveries in the west proved to be sub-par. The crucial difference was the lack of monetary acceleration in the west.



Another episode selected for Case B on the previous page is President Ronald Reagan's policy of tax cuts and increased defence expenditure in the first half of the 1980s. Under Reagan the budget deficit swelled from 1.6% of GDP in 1981 to 5.3% by 1986 (as measured by the IMF's CABB). At the same time, however, far from accelerating under the pressure of increased government spending, inflation fell sharply from 14.8% in March 1980 to 1.1% by December 1986. How could it be that with such a large stimulatory fiscal spending plan, the inflation rate could come down so dramatically? The answer, of course, was that this was the period when Paul Volcker was Chairman of the Federal Reserve Board, and he was on a mission to raise interest rates, squeezing money and credit until inflation fell. Therefore, despite an expansionary fiscal policy, monetary policy was tight, and monetary policy dominated. Although this was a period of confusion for followers of narrow money supply or M1 data -- including Friedman himself – due to significant deregulation of the financial system and the introduction of NOW (Negotiable Order of Withdrawal) and new "sweep" accounts, the results in terms of inflation were unambiguous. Tight money had brought down inflation -- even in the face of a highly expansionary fiscal policy.
US11H4

The Interaction of Fiscal and Monetary Policy: The United States during the 1960s

International Monetary Monitor

FISCAL POLICY	MONETARY POLICY: Expansionary	MONETARY POLICY: Contractionary
Expansionary	**Case A** **Kennedy Tax Cut** **Fiscal Policy:** 1963 Tax Cut 1964 Great Society Programs & Vietnam War **Monetary Growth:** Feb 61 / Nov 67 / Apr 66 M1 1.2% / 4.3% / 6.0% M2 6.0% / 8.8% / 7.8%	**Case B** **1967 Slowdown or Mini-Recession** **Fiscal Policy:** Essentially no change from Case A **Monetary Growth:** Apr 66 / Jan 67 M1 6.0% / 1.7% M2 7.8% / 4.2%
Contractionary	**Case C** **1968 Tax Increase** **Fiscal Policy** 10% tax surcharge on personal & corporate income **Monetary Growth:** Jun 67 / Feb 69 M1 1.7% / 7.9% M2 4.2% / 7.8%	**Case D** **Recession: Dec 69 to Nov 70** **Fiscal Policy** Essentially no change from Case C **Monetary Growth:** Feb 69 / Mar 70 M1 7.9% / 2.8% M2 7.8% / 2.2%

•Source: Invesco Research, 28 September 2018.

Optional footer 8

In the 1960s there were two clear episodes when monetary and fiscal policy moved together (Cases A and D in the matrix above), and two cases where fiscal and monetary policy moved in opposite directions (Cases B and C). In Case A, the Kennedy tax cut was given widespread credit for the recovery of the economy in 1961-64, but few noticed that monetary growth also became much more expansionary. Because fiscal and monetary policy were both expansionary, the net result was a strong economy with rising inflation. In Case B, the fiscal deficits continued, but monetary growth tightened sharply from 1966. The result was a slowdown or mini-recession in 1967. Monetary policy had dominated over fiscal policy.

In 1968 (Case C) a 10% tax surcharge was imposed on personal and corporate income to curb the balance of payments deficit and to lower inflation, but the Federal Reserve continued with rapid rates of monetary growth. “Fiscalists” predicted a slowdown in 1968-69, but in fact the economy remained buoyant until it entered recession in December 1969, providing a controlled experiment in which monetary ease dominated over fiscal squeeze. Finally, in Case D in response to the continued inflation, both monetary and fiscal policy moved in a contractionary direction, and the result was a recession between December 1969 and November 1970.

All four episodes conform to Friedman’s rule that monetary policy dominates over fiscal policy.

The Interaction of Fiscal and Monetary Policy: The United Kingdom, 1919-2009

International Monetary Monitor

	MONETARY POLICY	
FISCAL POLICY	**Expansionary**	**Contractionary**
Expansionary	**Case A** **Anthony Barber's "Dash for Growth," 1971-73**	**Case B** **Alistair Darling and the Great Recession, 2008-09**
Contractionary	**Case C1 and C2** **Britain's 1931 Budget (Philip Snowden)** **Britain's 1981 Budget (Geoffrey Howe)**	**Case D** **The Post-World War One Deflation, 1919-22**

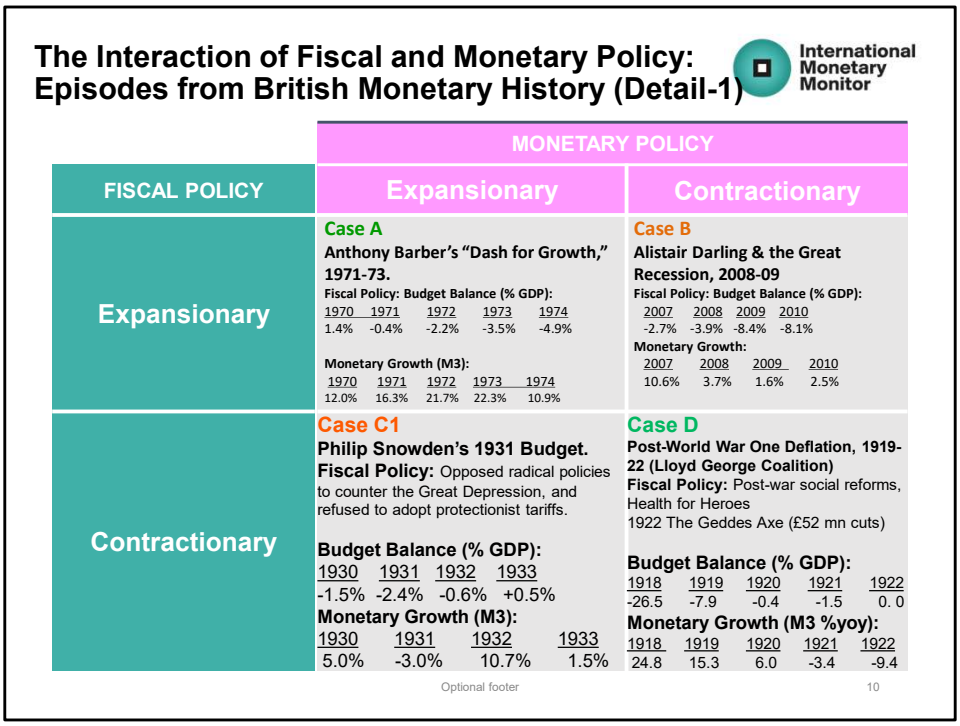
•Source: Invesco Research, 28 September 2018.

Optional footer 9

Britain's financial history offers several examples of episodes when monetary and fiscal policy have been pointing in the same direction, as well as some striking examples where policies have moved in opposite directions. Here we discuss five cases.

In Cases A (Anthony Barber's "Dash for Growth") and D (the post-World War 1 Deflation, 1919-22) monetary and fiscal policies were moving in the same direction, while in Cases B (Alistair Darling and the Great Recession, 2008-09) and Cases C 1 and C 2 (Britain's 1931 and 1981 budgets respectively) monetary and fiscal policies were moving in opposite directions.

Once again, we find that in all these episodes, and particularly the "test" Cases B and C 1 and C 2, where monetary and fiscal policies were working in opposite directions, monetary policy – in the sense of changes in broad monetary growth – proved to be the dominant partner.



In the aftermath of the release of "Competition and Credit Control" in May 1971 and the formal ending of the Bretton Woods fixed exchange rate system in August 1971, PM Edward Heath and his Chancellor of the Exchequer, Sir Anthony Barber, pursued both an expansionary fiscal policy with widening budget deficits together with a highly expansionary monetary policy (Case A). As shown above, M3 grew at over 20% for two years and the budget went from a 1.4% of GDP surplus in 1970 to a -4.9% deficit in 1974.

Less well known is Case D (the "Geddes Axe" or post-World War One Deflation, 1919-22), an episode of consistent monetary and fiscal policies, but this time in a contractionary direction. The simultaneous monetary and fiscal squeeze may be seen as an initial attempt to restore the gold standard which had been temporarily abandoned in WW1.

The important test cases, from our standpoint, are Cases B and C1. In Case B (Alistair Darling's budget during the Great Recession of 2008-09) – and as mentioned above (on p.6 in connection with China's 2008-10 fiscal stimulus – Britain was one of those countries that ran huge budget deficits intended to boost spending but failed to ease monetary policy. Among other factors, higher capital requirements prevented UK banks from expanding their lending

and hence broad money growth (as the data in the matrix show). (continued)

The Interaction of Fiscal and Monetary Policy: Episodes from British Monetary History (Detail-2)

International Monetary Monitor

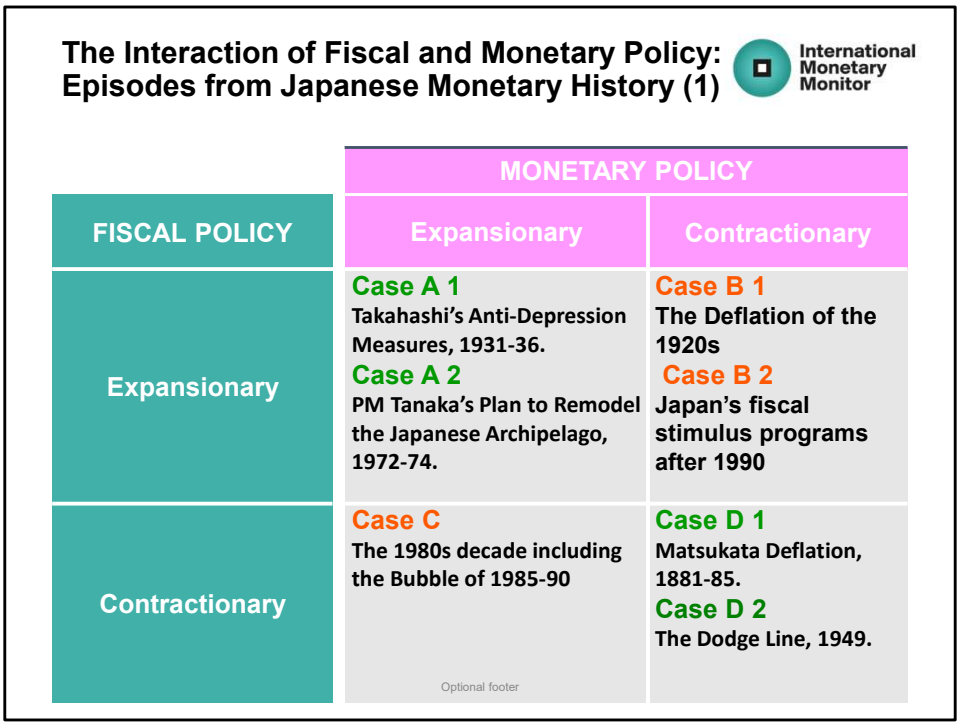
	MONETARY POLICY	
FISCAL POLICY	Expansionary	Contractionary
Expansionary	Case A	Case B
Contractionary	Case C2 **Geoffrey Howe's 1981 Budget.** **Fiscal Policy: Increases in indirect taxes, spending controls, and reduced PSBR** **Budget Balance (% GDP):** 1980 1981 1982 1983 -4.1 -3.3 -2.5 -3.3 **Monetary Growth (M3 %yoy):** 1980 1981 1982 1983 17.3 14.0 12.6 13.2	Case D

•Source: Invesco Research, 28 September 2018.

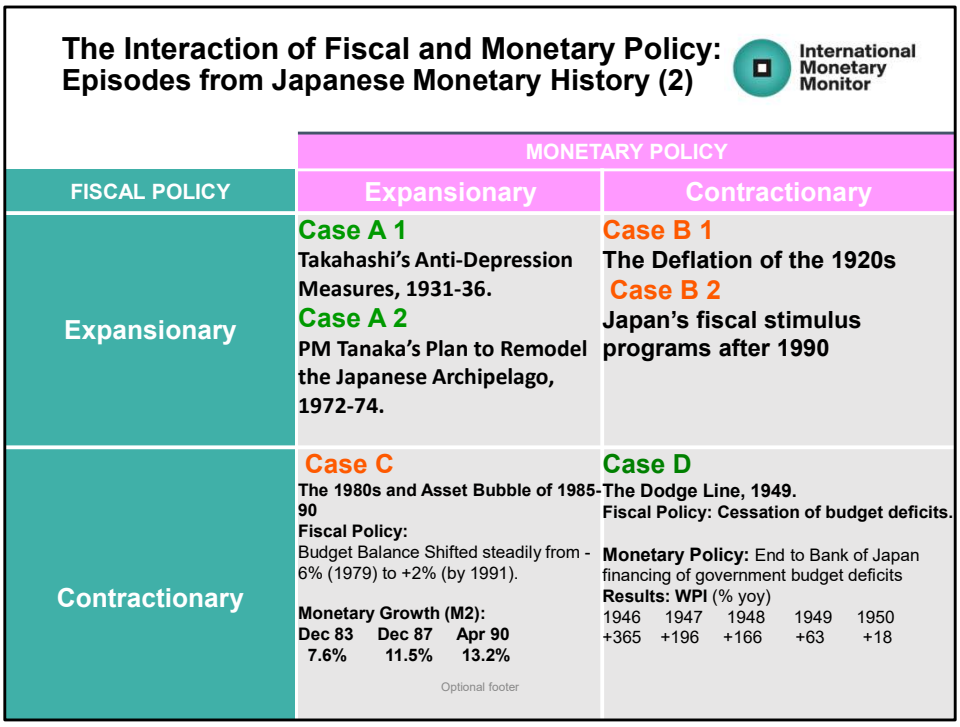
Optional footer 11

Case C 1 (Philip Snowden's 1931 budget on previous page) is another striking example of the opposite situation (expansionary monetary policy with tighter fiscal policy). Despite pressure from his Labour party colleagues, Chancellor Philip Snowden refused to expand the budget deficit but presided over a significant monetary expansion to 10.3% M3 growth in 1931. The result was that Britain avoided the monetary contraction and Great Depression of 1931-33 which engulfed the United States.

Case C 2 is the famous first budget of PM Margaret Thatcher and her Chancellor Geoffrey Howe in 1981 – a remarkable example of the government raising taxes in a recession (and hence narrowing the deficit and maintaining a fiscal squeeze) while easing monetary policy with faster broad money growth. The result? An economic recovery that flatly contradicted the indignant letter from 364 disgruntled professional economists who had predicted that "present policies will deepen the depression, erode the industrial base of our economy and threaten its social and political stability." In fact, the economy troughed in the second quarter of 1981 and the recovery started in the third quarter, just a few weeks after the budget. By 1981 Q4 the real GDP had increased by 1.5% over the previous year, rising a further 1.8% in the year to 1982 Q4 and 4.1% in the year to 1983 Q4.



For Japan I have chosen seven episodes, with four examples of monetary and fiscal policies working in the same direction (Cases A1, A2, D1 and D2) and three examples of monetary and fiscal policies working in opposite directions (Cases B1, B2 and Case C).
On this page I will briefly describe the first set of cases where monetary and fiscal policies were acting in the same direction.
First, in Case A1, Finance Minister Takahashi's expansion plans of 1931-36 succeeded because they combined monetary expansion, fiscal expansion and devaluation of the exchange rate. Similarly, in Case A2 PM Tanaka's "Plan to Remodel the Japanese Archipelago" in 1972-74 was based on a strong boost to fiscal spending, backed up with a huge monetary expansion. One motivating factor was that the Japanese authorities were deeply concerned about the possible adverse effects on Japan's export-oriented economy of the abrupt realignments of exchange rates after August 1971. A domestic expansion was ideally suited to counter such a threat. The result was a huge inflation in 1974-75.
Second, the converse cases of the Matsukata Deflation in the 1880s (D1) and the Dodge Line (D2) in 1949 were equally bold and dramatic. In the 1880s FM Matsukata abruptly reversed the price rises that had occurred from putting down the Satsuma rebellion. This enabled Japan to preserve the silver standard until 1897. The imposition of the Dodge Line (D2) by the post-war American occupying forces was a strong and effective response to several years of very high inflation in the aftermath of WW2. Both were dramatic episodes of deliberate deflation.



As with other case studies, the episodes where monetary and fiscal policy have operated in opposite directions have been the best test of Friedman's hypothesis that monetary policy was consistently more important for macroeconomic outcomes than fiscal policies.

In Case B1 Japan, as a non-belligerent economy, emerged from WW1 with a price level that had risen far above what was consistent with the fixed (gold standard) exchange rate. As demand for its exports weakened, Japan needed internal deflation to adjust its price level, but the authorities repeatedly tried fiscal stimulus to boost the economy in response to problems such as the Great Kanto Earthquake of 1923. Despite these episodes of fiscal expansion, the persistent contraction of foreign exchange reserves and gold put downward pressure on money growth, leading to persistent deflation through the 1920s. Monetary growth dominated over attempts at fiscal expansion.

In Case B2, after Japan's bubble burst in the early 1990s, the authorities mistakenly sought to revive the economy with a series of fiscal stimulus measures. However, despite growing fiscal deficits, the economy remained stagnant with near-deflationary conditions for much of the decade. Monetary

tightness (meaning low money growth) prevailed over fiscal expansion.
Going back to the preceding decade (Case C), Japan's bubble in the 1980s had puzzled many because it occurred despite the lack of any government stimulus. The real drivers were extremely low interest rates and a 50% increase in the rate of monetary growth – from 8% p.a. in 1985 to 12% p.a. by 1989. In effect, monetary expansion had overcome fiscal passivity. These three cases clearly endorse Friedman's hypothesis: monetary policy is far more effective in determining the shape of the business cycle than any fiscal actions.

Conclusions

International Monetary Monitor

- Historically, monetary policy, in the sense of changes in the rate of broad monetary growth, dominate fiscal policy in the determination of asset prices, national income and inflation.
- It is therefore premature and probably unjustified to claim that the world is about to enter a period of fiscal dominance. Such episodes, if they have occurred in the past, are rare and exceptional. Why should the future be any different?
- It is true that in the past two decades fiscal spending has been on a scale only previously experienced during wartime, and that it has had damaging effects on productivity and economic growth.
- The proper role of fiscal spending should therefore be limited to the provision of public goods and services (defence, justice, policing, etc.) and the transfer of income to disadvantaged groups – both in amounts as agreed by the political process.
- The corollary is that fiscal policy should ***not*** be used to stimulate or moderate economic activity. That is the role of monetary policy alone.