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What Is The Same—And Different—In Response to This Tightening Cycle

Last July, we shared our thoughts on the effects of policy tightening and whether or not the full effect of that tightening had been realized, both for economic activity and inflation. With several more quarters of data now available, we check in again on where the economy is relative to a typical tightening cycle. As in that issue, we apply updated data to the work of Christina and David Romer and extend their work to the components of GDP to analyze how policy tightening plays out across the economy. Total U.S. economic output continues to do much better than typically expected given monetary policy tightening. Looking at the sources of that strength indicates divergent behavior and gives insight into what is driving that strong aggregate performance. Some parts of GDP—residential investment, equipment spending, and durables consumption—are being restrained by tight rates in ways that quite closely track a typical tightening cycle. But other areas differ, sometimes starkly. Non-residential structures investment has been much stronger, likely boosted by the IRA and CHIPS legislation. Government spending is also much higher than is typical during a tightening cycle, helping to support the overall economy.

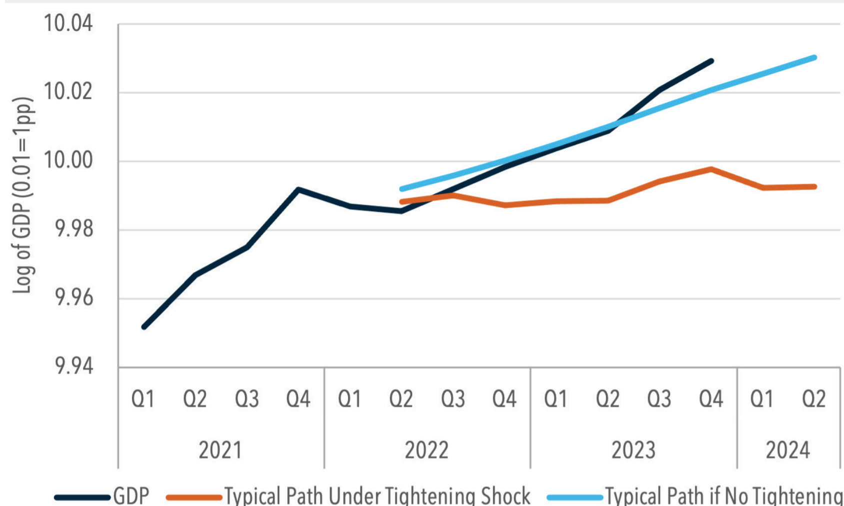
"Details create the big picture"

– Sanford Weill, American banker

As we highlighted in last July's issue, one useful approach to assessing the effects of monetary policy shocks is through the work of Christina and David Romer that examines historical minutes and Fed transcripts to identify contractionary and expansionary monetary policy shocks, then tracks their impact on broad economic activity and inflation. Our analysis extends Romer/Romer's work to the subcomponents of GDP and several other important data series. This exercise allows us to assess with more granularity how policy tightening has rotated through the economy in the past, and then benchmark where we are now relative to history, using latest available data. Recall that the accompanying graphs compare what the typical behavior of GDP, or components of GDP, would look like in three cases: 1) the typical behavior if there had been no tightening shock, 2) the typical behavior with a shock, and 3) what the economy has actually done over the past several years.

In terms of the overall GDP, it continues to behave as if there was no monetary policy tightening. In fact, growth has mostly tracked the typical no-tightening path and has even picked up a bit above it recently (see Figure 1). The latest data

FIGURE 1: GDP well above the typical tightening path



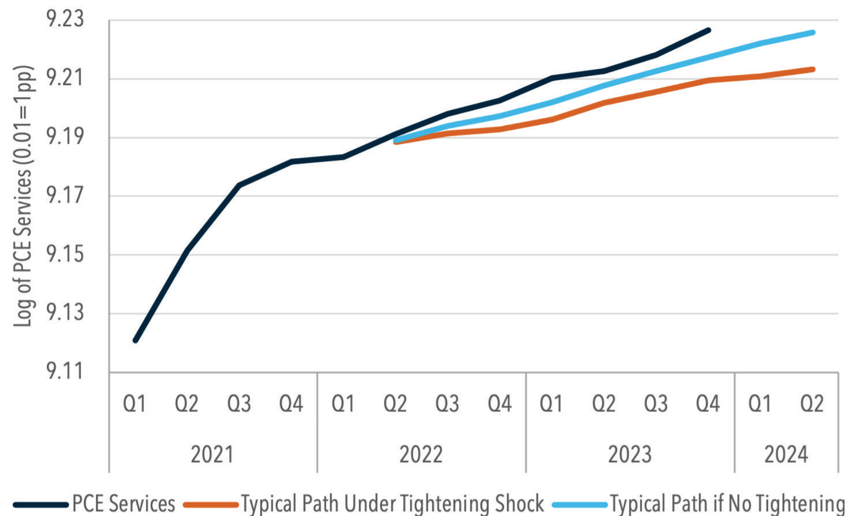
Analysis as of 29 March 2024, using latest available data. Sources: Bureau of Labor Statistics and Stone Harbor Investment Partners calculations. For illustrative purposes only

is a clear upside surprise relative to our, and others, expectations when the Fed started the tightening in March 2022. The details of how that more rapid GDP growth came about are very useful in thinking about why the economy is growing more rapidly than previously anticipated.

We start with consumption, as it is by far the biggest component of GDP. Overall consumption has been very strong—well above levels that would have been expected even along a typical no-tightening path and certainly far above what one would expect with tightening shock. But, the data is especially interesting when we disaggregate consumption, particularly the behavior of services consumption and durable goods consumption.

Services consumption has been very strong, well above a typical no-tightening path (see Figure 2). The unique nature of this cycle, with services having been repressed by the COVID shock, almost certainly explain a substantial amount of this strength. As the effects of the pandemic, and the risks of face-to-face interaction, faded, there was a strong uptrend from the return of activities. Indeed, in the second quarter of 2022, when we place the start of the tightening shock, real services consumption was still below the pre-pandemic trend, which implies that there was still some recovery to come. It looks like that has indeed been the case, with services consumption returning back to that trend.

FIGURE 2: Services consumptions remains very strong



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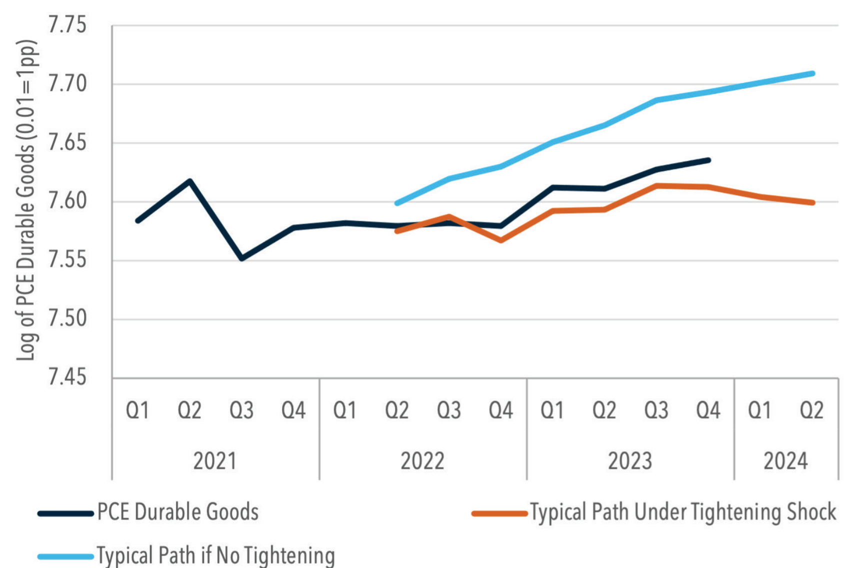
In contrast, durables consumption—the most interest rate-sensitive slice of consumption—has not shown the same strength, as illustrated in Figure 3. Instead, it has mostly been following the typical path for a tightening cycle, growing much more softly than in the no-Romer-shock counterfactual. This makes sense for two reasons. First, durable goods consumption wasn't suppressed by the pandemic in the same fashion as services as consumers were mostly able to buy goods despite the effects of the pandemic. Second, the interest rate channel has continued to operate on the financing of these items, restraining demand for them.

FIGURE 3: Durable goods consumption is growing at a softer pace



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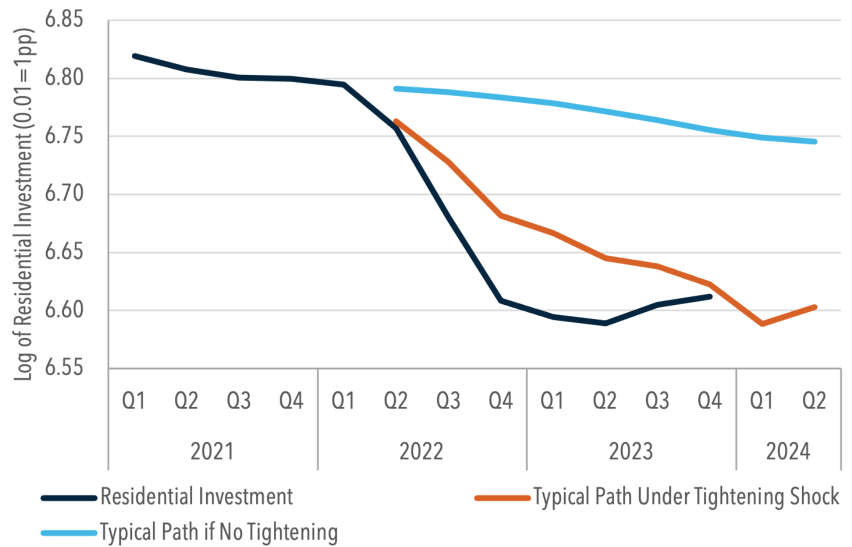
Turning to investment, we again see divergences between some areas that are showing very typical tightening cycle behavior…and some that are not. This time, we'll start with one that has behaved mostly as expected. Residential investment dropped sharply as rates

started to rise, as shown in Figure 4. The dip was actually quicker and deeper than had been typical, though it appears the bottom perhaps came a bit soon. The most recent several quarters have shown signs of stabilization, bringing the total decline back more in-line with what is typical of a tightening cycle.

FIGURE 4: **Residential investment is showing signs of stabilization after steep decline**



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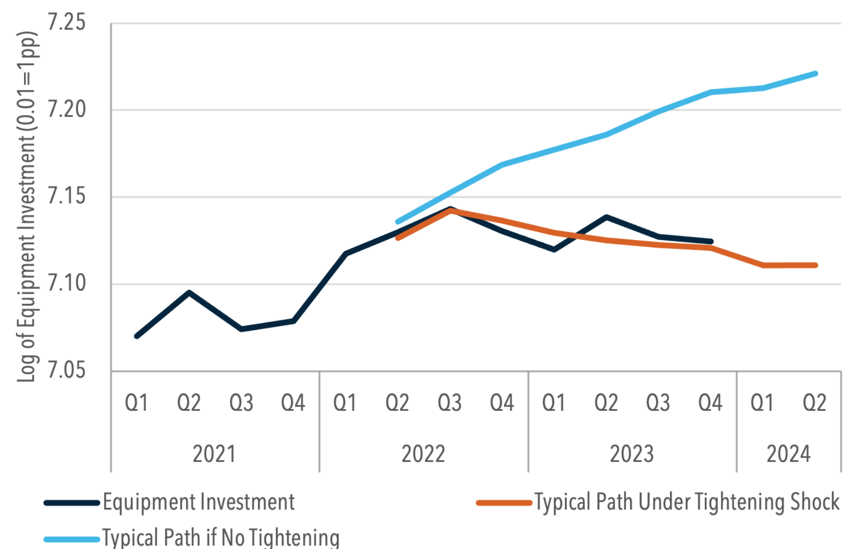
Equipment investment by firms is another area where the behavior has been typical. Like residential investment, equipment investment is often financed, though the timeframe is much shorter than residential investment. That usually shows up, in a tightening shock, as equipment investment going sideways, rather than increasing as is typical. And, that's exactly what equipment investment has done for the last six quarters: headed resolutely sideways, almost exactly in line with the typical path under a Romer/Romer tightening shock. The last two quarters, with modest sequential declines, have only extended that move (see Figure 5).

FIGURE 5: **Equipment investment is declining modestly from a sideways progress**



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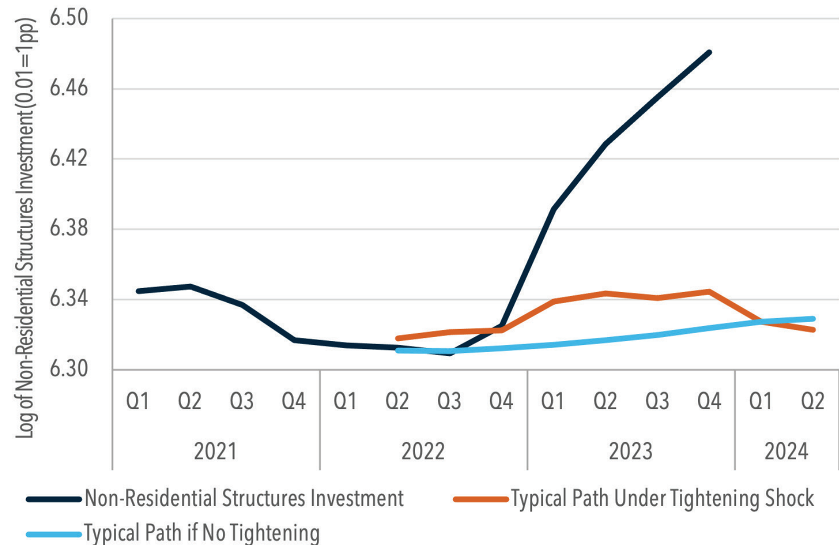
Beyond those areas, we start to see significant divergences in other components of investment. The non-residential structures component of GDP is an area where there aren't large differences during a shock, perhaps because of the relatively long lead times involved in the construction of these buildings. Indeed, the estimate of the behavior under a tightening shock is actually slightly above no shock, but we primarily attribute that to it being imprecisely estimated. In any case, what we have seen realized is massively different than typical under either case. as structures investment has surged. This upside divergence is clearly attributable to policy changes, but on the fiscal side rather than the monetary policy side. The Biden administration passed several pieces of legislation—the CHIPS and IRA acts—which provided very substantial incentives for factory construction. If we disaggregate non-residential structures investment, it is very clearly exceptionally strong new factory construction—a doubling in real terms!—that is driving the outperformance of non-residential structures.

Finally, and perhaps most surprisingly, government spending has also substantially outperformed. Like non-residential structures investment, government spending has been much stronger compared to either a shock or no-shock baseline, as shown in Figure 7. The growth comes from strong spending both by the federal government and state and local governments. What's driving it? On the state and local side, some of it is likely due to the substantial support from the federal government during COVID, buffering budgets and ensuring that states and localities that often feature balanced budget requirements haven't had to pull back on spending. But, even as we have gotten further away from COVID government spending has continued to increase robustly, with the past several quarters seeing further ongoing growth.

FIGURE 6: Non-residential structures investment shows a significant surge



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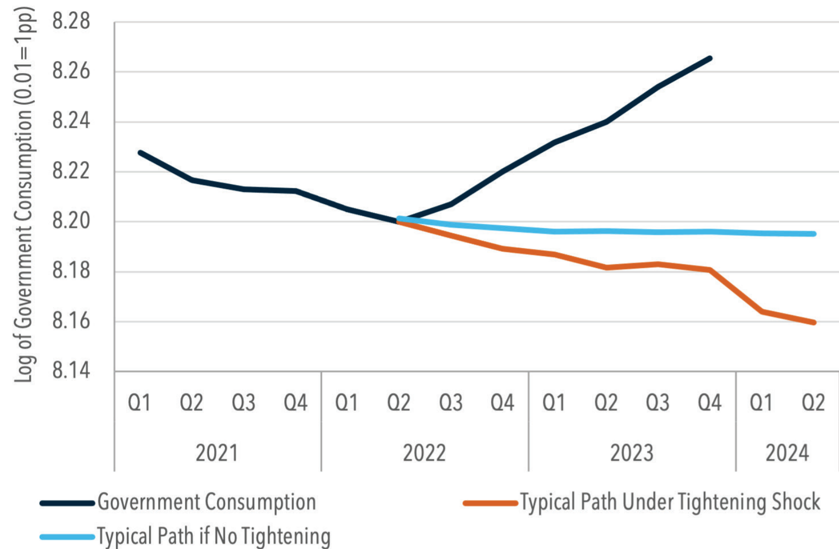
The robust government spending explains a surprisingly large amount of the strength overall in GDP we noted at the beginning. If we look at the size of the divergence in total government spending compared to the typical path, it sums to about 1¼ percentage points of GDP. The divergence in GDP from a typical tightening path is about three percentage points, so government spending is nearly half of the total outperformance.

FIGURE 7: Government spending has been much stronger than shock or no-shock baseline



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The combination of the recent data, recent Fed communication, and our work detailed above that shows what's been driving the overall strength of output have led us to revise our scenarios. Most importantly, we have transitioned our scenario that saw further hikes to an extended hold one, consistent with Fed communications. We've also, partly as a result of our work above, meaningfully increased the probability that we see that outcome as continued firm output now looks somewhat more likely. Our base case of a softish landing loses a little probability, with the start of the easing cycle being pushed to the July meeting. And our optimistic scenario—that inflation proceeds fairly smoothly down—looks less likely after the three upside surprises to CPI inflation to start the year, though we note that those surprises don't fully flow into the Fed's preferred core PCE inflation measure.

Scenario	Assumptions
Soft-Enough Landing (35%)	• High policy rates keep U.S. growth modestly below potential, though a bit higher than under previous case, as immigration continues to boost potential. • Growth slowdown rotates from the most interest rate-sensitive sectors—e.g., housing—to consumer and business investment. Eurozone growth remains quite sluggish. • Weakness in global economic activity and a continuing housing slump constrain China's growth. • Growth in other emerging markets (EMs) is supported by rate cuts in the second half of 2023 and solid domestic demand in some EMs, offsetting the drag from low developed markets growth. Commodity exporters still benefit from supportive terms of trade. • After the recent rebound, U.S. core PCE inflation moderates into the summer. • Fed keeps rates flat through spring 2024. Balance sheet runoff slows. Inflation moderation sufficient for the Fed to start cutting rates in the summer. They continue to reduce at a modest pace through the rest of the year. ECB dynamics similar. • Rate cuts across many EMs following lower inflation pressures. • China continues gradual monetary easing. Some fiscal stimulus measures are being rolled out, but high debt levels restrain the aggressive use of credit policies. Large-scale bailouts or debt restructurings are avoided due to moral hazard concerns.
The Forbidden "T"-Word (15%)	• Inflation really was "transitory"… just a (very) long version of transitory. The pandemic and its aftershocks caused a surge in prices, but that surge didn't translate into lasting inflation. Inflation into mid-2024 essentially converges back to target in the U.S. and other DM economies. • Fed starts rate cuts in the summer, and then accelerates them as inflation continues to decline. Fed funds drops back below 4% into 2025. • The Eurozone, with inflation also moderating rapidly and growth even weaker, also turns to cuts. Japan moves short-term rates up to zero, but doesn't increase any further as their inflation rate follows other DMs down, just with a lag. • Growth in the U.S. remains modestly above trend, but importantly without signs of inflation; European growth remains somewhat more sluggish. • EMs also broadly see inflation continue to moderate. In response, EM central banks continue already-initiated cutting cycles. • EM growth solid, both from the easier financial conditions and solid DM growth. • Oil prices moderate somewhat as supply response helps constrain prices.
Global Recession (20%)	• Lags prove to be long (and variable): lagged effects of tighter fiscal and monetary policies combine with renewed banking issues, commercial real estate issues, and associated credit contraction to tip global economies into recession. • U.S. growth fades through the spring. Interest rate sensitive sectors—housing, business investment, and durables—sink further. Recessionary dynamics take hold in the labor market and weakness spreads. • Inflation moderates rapidly with the consumer slow and demand contracting. • Already sluggish European growth follows U.S. growth down. The recession spills over into other DM and EM economies, though they perform relatively better than the U.S./EZ. • China also stalls amid global growth headwind and initially tighter financial conditions. Policy stimulus limits downside. • As recession dynamics take hold, the FOMC reverses course and starts to cut the funds rate. By the first quarter of 2025, rates are back to around 2½%, with potential for further cuts. Balance sheet shrinkage stops, but purchases do not restart. ECB likewise has moved to substantial rate cuts. • EM economies policy stance also shifts, with more decisive cuts than in base case scenario.
Extended Hold, as Inflation Turns Sideways (30%)	• U.S. growth remains solid, notably over current estimates of the potential growth rate (~1¾%). • The ongoing firm growth outlook, despite substantial rate increases, does two things. First, it keeps upward pressure on inflation rates, which turn back higher, returning to inflation run rates of around 3%. Second, it supports upward reassessments in markets of where neutral interest rates are. • Inflation remains too firm in 2024 and, in response, the Fed holds rates at the current level, so as to put more downward pressure on growth and inflation. Longer-term rates move higher with the higher expected future neutral rates. • Eurozone growth firms from the current dip, but as in the U.S., inflation remains stubbornly high. Solid U.S. growth provides some support to other DMs. • EM effect varies. Positive impact from solid U.S. and better EZ growth dominates, but some countries feel the effects of the higher rate environment. • Oil broadly supported by the robust growth.

	Soft-Enough Landing (35%)	The Forbidden "T"-Word (15%)	Global Recession (20%)	Extended Hold, as Inflation Turns Sideways (30%)
U.S. Real 4Q GDP (%)	1.50	2.25	-1.00	2.75
Fed Funds (%)	4.63	3.63	2.63	5.38
U.S. Core PCE (%)	2.60	2.00	1.75	3.00
2yr Treasury (%)	4.00	3.25	2.00	5.38
10yr Treasury (%)	3.90	3.25	1.75	5.00
10yr Bund (%)	2.25	1.75	1.00	3.50
China 4Q GDP (%)	4.75	5.25	3.25	5.50
EM 4Q GDP (%)	4.00	4.50	1.75	4.75
Oil (WTI/Brent)	$75/80	$75/80	$55/60	$90/95

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