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A source-based approach to managing inflation risk

When it comes to mitigating the portfolio effects of higher inflation, consider the sources of the inflation.

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In our last white paper, "There's more to inflation risk than meets the eye," we addressed inflation squarely from the perspective of an asset allocator by examining the various impacts it can have on client portfolios — the idea being that understanding and evaluating a portfolio's exposure to inflation risk, in all its forms, is the first step to managing it effectively. This time around, we build on that discussion by focusing on the management and potential mitigation of inflation risks.

Specifically, we lay out what we believe are the five most likely sources of inflation risk over the coming decade:

1. The global economy running (and growing) beyond its potential output in the years ahead;
2. Greater pricing power by the labor market, putting upward pressure on wages;
3. Input price shocks caused by the ongoing trend of global climate change;
4. Reduced investment in some commodity sectors, creating steeper supply curves; and
5. Disruptions to the stability of traditional monetary relationships.

We then present a *source-based* investment "playbook" of sorts that allocators can follow as they seek to neutralize the looming threat of higher inflation — a top-of-mind concern for many clients in today's reflationary environment. (For more on that, see "An allocator's agenda for a reflating world.")

About the authors

Nick Samouilhan is a strategist and portfolio manager in Wellington's Investment Strategy Group. In his role, he develops research on capital market and asset allocation themes, advises clients on investment strategy and portfolio construction, and manages custom investment solutions for clients.

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Why the source of the inflation matters

Many investors rely on standard inflation indices, such as the Consumer Price Index (CPI) or the Producer Price Index (PPI), to track the direction and pace of inflation over time. While useful to a degree, these broad indices are only intended to serve as representative guides to the inflationary forces facing consumers and businesses. They are not designed to help asset allocators tackle inflation from an investment perspective, as that depends on precisely where the inflation is coming from — its source (or sources). For example, a rise in overall CPI inflation caused by "source A" could lead to market instruments repricing in a completely different way than if the same CPI move were caused by "source B."

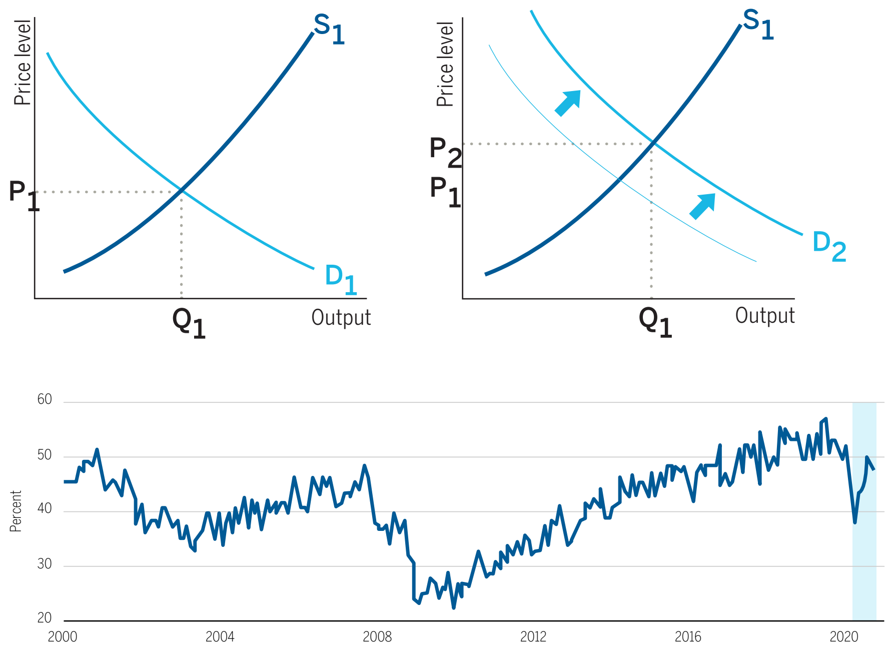
Five main sources of inflation

1. Demand dynamic: Potential growth, output gaps, demand-pull inflation

- **Overview:** Every economy has its own natural "speed limit," so to speak, that is determined by the nation's productive capacity. Demand for production beyond this limit will typically translate into higher inflation as the excess demand bids up production prices.
- **Inflationary process:** "Demand-pull" inflation usually leads to a general but uneven inflationary impact, with price pressures concentrated in specific sectors with more constrained supply. This dynamic can be seen in **Figure 1**, where increased demand is associated with rising price levels.

Figure 1

Inflationary impact of increased demand, % of small businesses with few/no qualified applicants



Source: National Federation of Independent Businesses

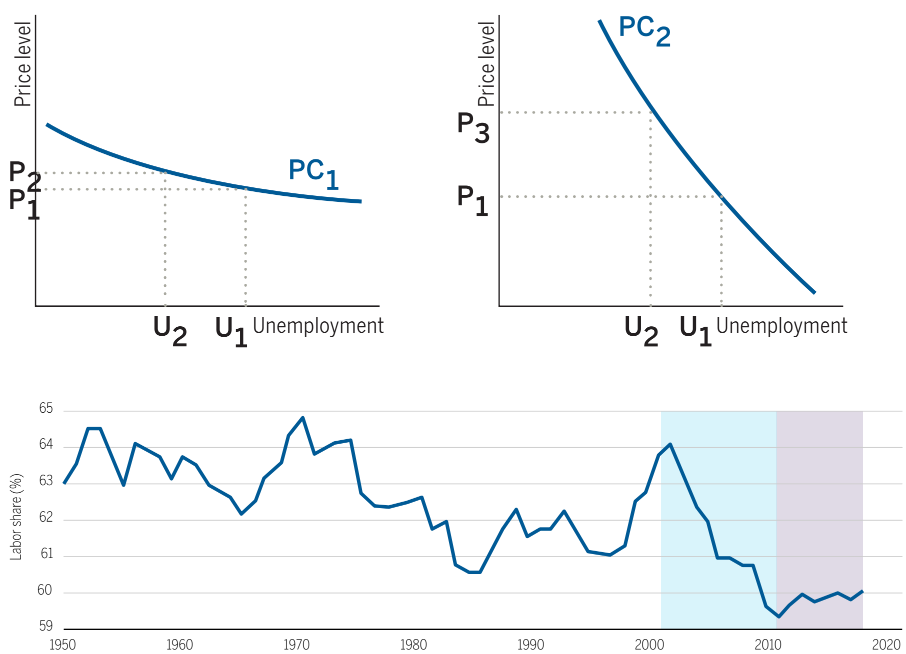
- **Mitigation strategies:** When the source of inflation is stronger economic growth, investors can often favor equities, particularly cyclical sectors, as a mitigation strategy — for example, home builders, transportation, miners, and consumer discretionary in less labor-intensive areas.
- **Warning signs:** Warning signs for this type of inflation might include realized economic growth approaching or exceeding maximum output; backlogs in purchasing managers' indices; wage-leading indicators like small business surveys; and policymakers signaling that they do not intend to tighten policy until realized inflation is consistently above target.

- **Where we are today:** We believe the risk is growing, with the global economy already experiencing increasing aggregate demand and potentially degraded aggregate supply:
  - On the **demand** side, further fiscal stimulus is expected, policy rates will likely remain low, and COVID vaccines should ease economic mobility restrictions. Central banks have also been explicit about wanting to see inflation breach their targets before acting.
  - On the **supply** side, COVID's impact on degrading supply chains is not yet fully known, so output gaps are uncertain. In addition, because not all labor supply is equal, it's possible to have (inflationary) supply constraints in sectors that require specialized skills before overall labor supply shrinks (**Figure 1**).

2. Supply dynamic: Labor power, inequality, the Phillips curve

- **Overview:** Labor is a key production input of any economy, with its "price" influencing overall wage levels and its "pricing power" influencing the customary trade-off between higher economic growth/employment and higher inflation (i.e., the Phillips curve relationship).
- **Inflationary process:** This inflation source will likely lead to a general rise in inflation, negatively impacting investments with larger labor cost bases and benefiting those with consumer-based revenues. An increase in the power of labor should also make inflation more sensitive to economic growth, as labor is able to "bid" for greater marginal reward for additional labor requests (**Figure 2**).

Figure 2
Labor compensation as a share of GDP at current national prices (US)



Source: Federal Reserve Bank of St. Louis

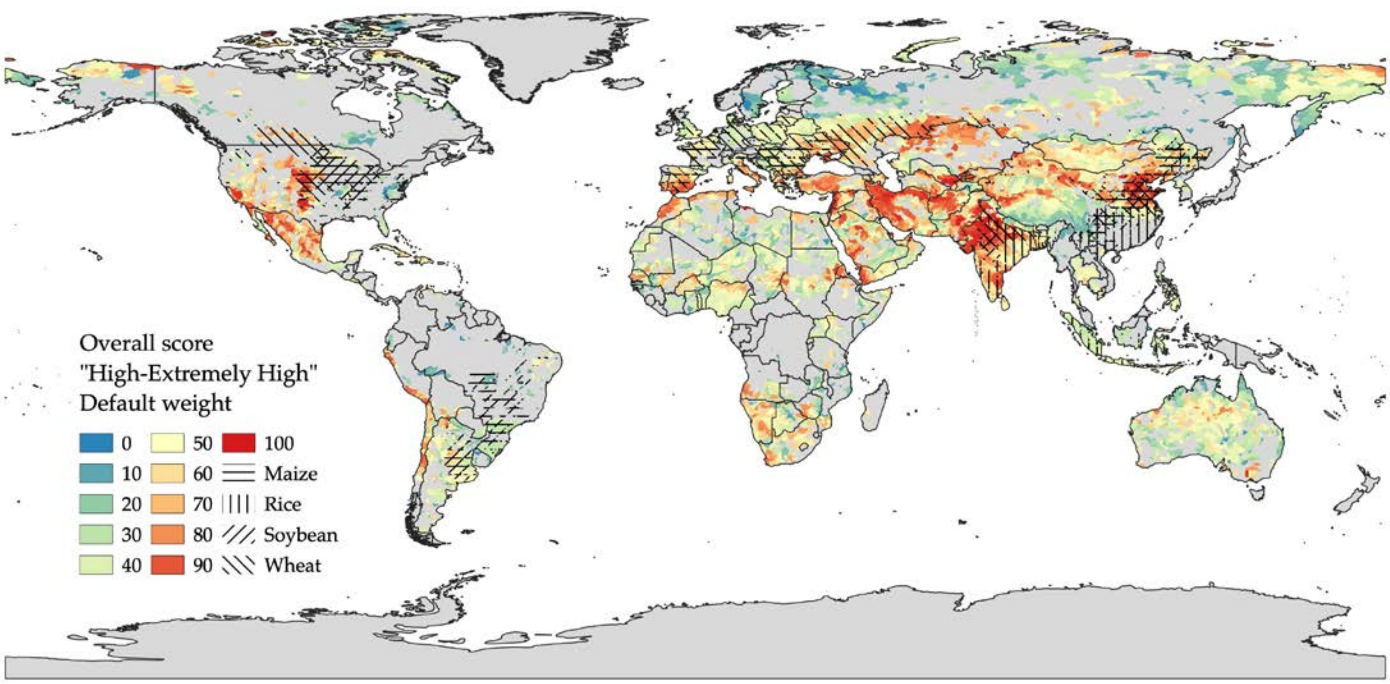
- **Mitigation strategies:** This is a tricky inflation source to mitigate, as it requires positioning for when more of the rewards go to labor at the expense of capital, whereas investing is (almost by nature) defined as being the "reward to capital." However, potential mitigation strategies here might include investing in companies that benefit from higher employment (staffing firms, payroll processors) or labor substitution (automation companies), along with some consumption spending plays.

- **Warning signs:** A rise in the minimum wage would be a primary concern here, as would a consistent, above-average increase in labor costs per unit of output. In terms of pricing power, it would be worth monitoring any actions taken to limit the substitution of domestic labor with either capital (machines) or foreign labor (outsourcing).
- **Where we are today:** Even with unemployment still elevated as of this writing, many employers are finding it challenging to fill open positions. Longer term, two related dynamics could cause inflation to be driven higher by labor power. The first is political, with a growing consensus around the need to address income inequality likely to result in policies that benefit labor (e.g., higher wages). The second is reduced pricing pressures coming from structural labor supply increases — Chinese and Soviet workers entering the global economy and the integration of more women into the workforce.

3. Supply dynamic: Climate change, input prices, cost-push inflation

- **Overview:** A price shock to a systematically important input price will tend to generate higher inflation as producers pass it on to consumers, leading to so-called "cost-push" inflation. While this has historically been due to geopolitical forces impacting oil prices, we believe that, going forward, the effect of climate change on a range of commodities will be a bigger factor.
- **Inflationary process:** Climate change inflation's key characteristic is its distinct geographic dimension, as a given sector may experience input price inflation in one location, but not in another, if the

Figure 3
Geographic aspects of climate risk to agriculture



Source: Woodwell Climate Research Center

A few words on inflation expectations

We would be remiss if we failed to note the importance of inflation expectations. If well anchored, investor expectations around the future path of inflation actually help to stabilize realized inflation, potentially dampening mounting inflationary pressures. Alternatively, once inflation expectations become "unanchored," they can act as an enabler for higher realized inflation, which in turn feeds into growing expectations, generating self-propelling momentum.

However, inflation expectations are not, by themselves, a source of inflation per se, because such expectations are largely driven by realized inflation. Instead, their main role (if anchored) is as a bulwark against rising inflation, or (if unanchored) as a catalyst for inflation as a higher-inflation scenario becomes the (self-fulfilling) consensus of economic actors. For example, well-anchored inflation expectations (for low/declining inflation) are one reason why the historical link between economic growth (employment) and inflation has weakened over time.

local effect of climate change is different. Food (agriculture) costs, for example, may rise in some regions, but fall in others. Extreme weather conditions can induce inflation through supply destruction or disruption. Climate change will likely leave few sectors unaffected by higher input prices. In addition, certain efforts to mitigate climate change could intensify cost pressures.

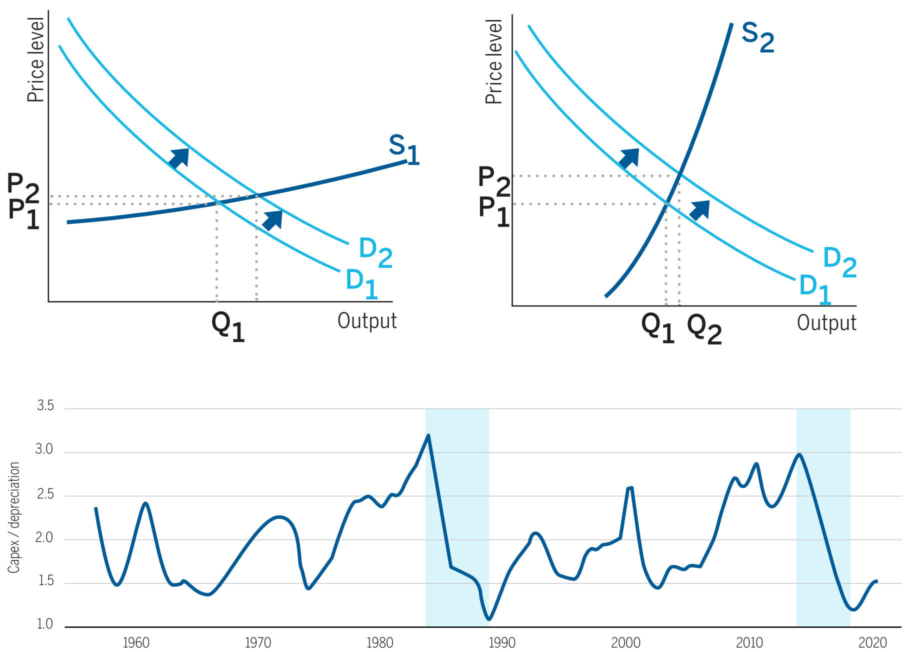
- **Mitigation strategies:** We believe the mitigation process for this risk should be driven by using geography in seeking to avoid the risks and position for the opportunities arising from climate change. For instance, investing in the broader dynamics associated with climate change, such as transition tools and technologies (e.g., green building, public transport, infrastructure, electric vehicles, water/waste management, renewable energy, agriculture, and forestry), may be one such strategy.
- **Warning signs:** The warning signs to look for here mirror those for climate change in general, where location-specific tracking indices can prove useful. Some examples are the National Weather Service Heat Index, the Palmer Drought Severity Index, the Fire Weather Index, and the World Resource Institutes' Water Scarcity Index.
- **Where we are today:** This risk is growing. In fact, across a range of widely followed indicators, there are already clear signs that climate change is having a discernible effect on global macroeconomic conditions, including different forms of inflation. We view climate change as an inexorable long-term trend that will continue to present a variety of risks and opportunities for investors.

4. Supply dynamic: Commodity prices, low investment levels, steeper supply curves

- **Overview:** Commodities are particularly sensitive to global supply/demand imbalances, for a few reasons: 1) substantial price increases are usually required to disincentivize global demand; 2) the supply curves for most commodities are often quite steep; and 3) it generally takes years to bring on new potential supply. Supply-driven commodity price inflation can exert significant upward pressure on the broader CPI and may drag up specific components of inflation as well.
- **Inflationary process:** A reduction in supply will lead to steeper commodity supply curves, as shown by comparing the middle and left charts in **Figure 4**. As such, increases in global demand will have a much greater impact on overall inflation. If this steeper supply-curve effect occurs in the commodity markets, it can feed through to the broader economy quite quickly, given the centrality of commodities to many industrial-production processes. While this impact is larger for more production-based economies, even in service-based economies, commodity-led inflation remains a key driver of year-over-year CPI volatility.

> A post-COVID resumption of economic growth will fuel increased demand for industrial commodities (base metals and petroleum), with metals likely also benefiting from renewables growth and stepped-up infrastructure spending.

FIGURE 4
The inflationary impact of constrained supply provision and reduced industrial commodity capex



Source: Average of trailing 12m capex/depreciation for US energy and diversified mining sectors. Empirical Research from 1954 – 1994, Compustat from 1995 – 2020.

- **Mitigation strategies:** In our judgment, the simplest and most effective way to mitigate this inflation risk is through direct exposure to the industrial commodity complex itself — the raw materials that enable the creation of manufactured goods and the operation of industrial facilities — or, perhaps better yet (given today's growing economy), via investments in commodity-linked equities.
- **Warning signs:** Low and/or declining inventory levels, a lack of increased capital expenditures as prices go up, and rising commodity prices themselves are all relevant factors to consider when monitoring this source of inflation. In addition, industrial production levels are a useful leading indicator for this inflation source, provided that the supply constraints outlined above are in place.
- **Where we are today:** This risk is on the rise. A post-COVID resumption of economic growth will fuel increased demand for industrial commodities (base metals and petroleum), with metals likely also benefiting from renewables growth and stepped-up infrastructure spending, especially in the US, going forward. Indeed, we are already seeing this begin to play out.

5. Monetary dynamic: Policy innovation, money supply, currency debasement

- **Overview:** Increasing the supply of a given national currency will typically lower its relative price vis-à-vis other domestic and foreign assets (including overseas currencies), such that more of that same currency will be needed to purchase the same amount of output. Simply put, this is an inflationary dynamic.
- **Inflationary process:** Cash, like most goods and assets, will decline in value with an increase in its supply, unless offset by decreases in money "velocity" or increases in output (as formalized by the Quantitative Theory of Money, shown on the right in **Figure 5**). In addition, an increase in the supply of a currency could trigger a decline in its value versus another currency (i.e., through a sustained currency depreciation, pushing import costs up).

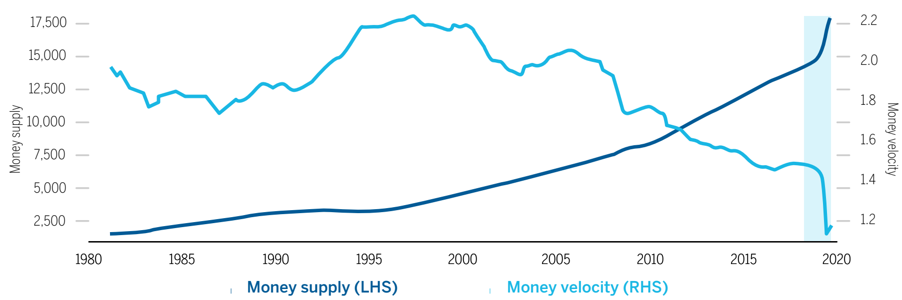
Figure 5

Money supply and velocity, M2 (US), the Quantitative Theory of Money

(**M**oney supply) x (**V**elocity)

=

(**Q**uantity) x (**P**rice level)



Source: Federal Reserve Bank of St. Louis

- **Mitigation strategies:** In terms of mitigation strategies, this inflation source generally implies favoring: 1) assets that are investable and in fairly limited supply (e.g., gold and real assets); 2) locally based exporters over importers; and 3) multinational firms with greater foreign revenues and lower domestic costs.
- **Warning signs:** Warning signs to watch for here include non-offsetting changes to the supply and velocity of money and/or a potential shift to a weaker domestic currency stance by the nation's central bank.
- **Where we are today:** **Figure 5** shows how the supply of money has significantly increased following the COVID shock, leading many commentators to warn of higher prices if money supply growth (sometimes called "money printing") continues as is. In practice, we believe this risk is pretty remote in most modern economies. With regard to currency depreciation risk, this is heavily country-dependent, as a country's own currency matters most to its imported inflation. However, the US dollar (USD) is globally important, as USD weakness may be inflationary for the US, but *deflationary* for some non-US markets.

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A source-based playbook for inflation

The overarching point of this paper is that the specific source (or sources) of inflation risk is relevant for client portfolios. Where the inflation is coming from plays a critically important role in determining its impact on a portfolio, what "red flags" (warning signs) to look for in each case, and suitable mitigation strategies to employ in defense of the portfolio. **Figure 6** provides this information in an "at-a-glance" table format, along with our latest subjective views on the level of risk posed by each inflation source discussed in this paper. It is a condensed version of our "source-based playbook" to help asset allocators better monitor and manage inflation risk in their portfolios.

Figure 6

The inflation playbook at a glance

Inflation source	Impact	Warning sign	Mitigation strategy	Risk
Potential growth, output gaps, and demand-pull Inflation	High growth leads to inflationary pressures across economy, focused on sectors with tight output gaps	Above-potential growth rates Reluctance to dampen growth	Sectors with tight output gaps Cyclicals, plays on faster growth	Here
Labor power, inequality, and the Phillips Curve	Increasing labour power leads to labour cost increases and a greater trade-off between growth and inflation	Limits to labour substitution Inflationary increases in labour costs	Property Consumer discretionary	Here
Climate change, input prices, and cost-push inflation	Changing climate leads to increased input costs with a strong geographic dimension	The same signs as climate change Specific indices with a geographic lens	Sustainable investments Transition-focused investments	Growing
Commodity prices, low investment, and steeper supply curves	Reduced capex has steepened supply curves, so demand increases will lead to a greater price response than in the past	Low, declining inventories Industrial production levels	Industrial commodities Commodity producers	Here
Policy innovation, money supply, and currency debasement	Increasing money supply without offsetting velocity declines leads to decline in value of money and a weaker currency	Non-offsetting velocity & supply growth Policy preference for weaker currency	Exporters Assets with limited supply	Remote

Source: Wellington Management. For illustrative purposes only.

As one example, if investors are concerned about the portfolio effects of inflation from higher economic growth (demand-pull inflation), we believe they should monitor growth rates and whether government policymakers intend to slow down the economy in the event that it begins to generate higher inflation. If this risk appears to be rising, investors might respond by tilting their portfolios toward cyclical equity sectors and other assets that are geared to stronger economic growth. In addition, investing in firms with tight output gaps may be a prudent mitigation strategy under these circumstances, as such firms are likely to benefit from rising prices for their output.

We believe an inflation-mitigation strategy built around where the risk originates from — a "source-based" approach — may go a long way toward pursuing more successful portfolio outcomes in the years ahead.

Conversely, we believe investors should closely monitor the money supply, money velocity, and prevailing currency exchange rates if their chief worry in the current environment is about currency debasement-led inflation. If this risk seems to be growing, then appropriate allocations to investable assets that are in relatively short supply (such as gold and real assets) and to certain local exporters should help mitigate the risk to client portfolios, in our view.

The time to act is now

In conclusion, broadly speaking, we expect inflation to be higher over the next decade than it was in the previous decade — perhaps even meaningfully higher and with much "fatter" tail risks that could prove more damaging to long-term portfolio returns. In any event, rising inflation risk is likely to impact most client portfolios to one extent or another. To guard against this insidious threat, why not take proactive, thoughtful steps *now* to position your portfolio accordingly? It can be helpful to first consider the sources of the inflation. We believe an inflation-mitigation strategy built around where the risk originates from — a "source-based" approach — may go a long way toward pursuing more successful portfolio outcomes in the years ahead.

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