What Went Right in Japan

Adam S. Posen

Adam S. Posen, senior fellow, is the author of Restoring Japan's Economic Growth (1998; Japanese translation, Toyo Keizai, 1999) and coeditor and coauthor of Japan's Financial Crisis and its Parallels to US Experience (2000; Japanese translation, Toyo Keizai, 2001). He has been a consultant to the International Monetary Fund and a number of US government agencies on the Japanese economy and has served on Council on Foreign Relations task forces on US-Japan economic relations.

This paper and the underlying research have benefited from ongoing discussions with and/or specific suggestions from C. Fred Bergsten, Bowman Cutter, Takeo Hoshi, Richard Jerram, Randall Jones, Kenneth Kuttner, Edward Lincoln, John Makin, Michael Musa, Marcus Noland, Hugh Patrick, Takashi Shimada, Hiroshi Tsubouchi, Ted Truman, Kenji Umetani, Tadao Yanase, and David Weinstein. Daniel Gould provided superb research assistance. The author remains solely responsible for the opinions and any errors herein.

© Institute for International Economics. All rights reserved.

THE OUTLOOK

Japan is in a strong recovery. Real GDP growth will exceed 4 percent in 2004 and likely be 3 percent or higher in 2005 and perhaps even 2006. The economy also grew solidly between 2003Q1 and 2004Q2 at an average real annualized rate of 3.2 percent. The pace is sustainable, given Japan’s underlying potential growth rate, which has risen to 2 to 2.5 percent per year, and the combination of catch-up growth closing the current output gap and reforms that will raise the growth rate for quarters to come (though not permanently).

Domestic demand indicators beyond capital investment are increasingly positive—housing starts are bottoming out, inventories are drawing down, and deflation has diminished. On the external side, the composition of Japanese exports has become more balanced this year compared with 2003, when China was the main source of export growth, and is widening beyond that seen in other recoveries.

Just as in the US and other developed economies, the primary risks to Japan’s economic outlook are a sharp slowdown in Chinese growth and a sustained further increase in energy prices. The threat of idiosyncratic—i.e., internally generated—shocks to the Japanese economy has receded for the first time since the bubble burst in 1990.

IMPROVED POLICY UNDERLIES RECOVERY

Japan’s Great Recession of the 1990s was the result of fiscal, financial, and monetary policy mistakes cutting off the economy’s natural recovery. For the last 18 months, however, the Japanese government has gotten out of the Japanese economy’s way. Improved supervision and enforcement led by former Financial Services Minister Heizo Takenaka since the end of fiscal 2002 have provided better incentives to the banking system, particularly the merged City and major regional banks. These banks have since sought to recapitalize and reduce bad loans for fear of supervisory intervention.

Since Governor Toshihiko Fukui took office in March 2003, the Bank of Japan (BOJ) has credibly committed to keeping interest rates at zero until deflation ends, thereby also improving incentives for consumption and investment. Fiscal policy under Prime Minister Junichiro Koizumi has resisted political pressures for a premature increase in taxation. This sustained recovery in the absence of radical transformation of the Japanese economy bears out the argument in Posen (1998) that the source of Japan’s difficulties was misguided macroeconomic and financial policies, based on an underestimate of potential, and not a fundamental decline of the economy.

SOURCES OF CURRENT JAPANESE RECOVERY

Economies have a natural tendency to recover from downturns, which is why one speaks of business cycles and why macroeconomic researchers were so interested in Japan’s persistent stagna-
tion. Analysis of the postbubble period in Japan indicates that varying combinations of fiscal contractions, lack of financial supervision, and excessive monetary tightness killed recoveries in 1997 and 2000. At least as important, the overwhelming accumulation of nonperforming loans (NPLs) in the Japanese banking system and the behind-the-curve response of monetary policy to recessionary forces throughout the 1992–2002 decade were an ongoing drag on the Japanese economy.\footnote{See Cargill, Hutchison, and Ito (2000), Kuttner and Posen (2001, 2002, 2004), Posen (1998, 2003), and the chapters by Bernanke, Blanchard, Jinushi et al., Mikitani, and Posen in Mikitani and Posen (2000).}

It is therefore a pleasure to note how normal the current Japanese recovery of nine quarters of positive growth beginning with 2002Q2 is by both international and historical standards. Most important, as one would expect, capital expenditure (business investment) was the leading contributor to growth in the early stages of the recovery, while public expenditure was on net contractionary (figure 1). Looking at the components of recent growth in more detail:

- The global pickup in manufacturing, particularly in electronics, and the ongoing growth in Japanese exports to China and emerging Asia motivated much of the investment at the start. This export boom is fed by a long-term shift of production abroad by Japanese multinationals, as well as by demand from Asia for energy-saving manufacturing equipment from Japan.
- Improved economic expectations and financial-market conditions have finally released pent-up investment demand. While Japan’s capital-output ratio remains high, years of underinvestment have made the capital stock antiquated and aided corporate balance sheets. The net growth in capital stock has been low, since old capital is being retired at record rates.
- A financial accelerator has generated a two-way improvement in corporate balance sheets and equity prices. The inflow of funds from those abroad who viewed Japan as underweight (and a way to play into China) has also driven up the stock market. Therefore both bank capital and borrower creditworthiness have improved, while interest rates have stayed low, combining to stoke investment demand.

Figure 1: Contributions to Japanese GDP, 2001Q1–2004Q2

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure1.png}
\caption{Contributions to Japanese GDP, 2001Q1–2004Q2}
\end{figure}

Source: Cabinet Office, Government of Japan.
Deflationary pressures have slackened somewhat, both as a cause and effect of the recovery. Movements in inflation expectations tend to be correlated with future consumption, so it is difficult to make too much of this change as yet:

- On the positive side, the Japanese saving rate has declined steadily in recent years. This decline should be seen as driven by the underlying demographic trend but no longer offset by precautionary saving motives from households as recovery occurs.

- On the negative side, much of the decrease in the rate of deflation in the past year is due to one-time increases in fees, taxes, and healthcare copayments.

- The inflation data captured in the consumer price index (CPI)—ex fresh food (the BOJ’s de facto target) and in the GDP deflator diverge. Both indicate a slowing of deflation, but the GDP deflator shows a greater level/degree of continuing deflation. (The Organization for Economic Cooperation and Development [OECD] notes that the GDP deflator is heavily distorted in its treatment of investment goods.)

In a normal recovery, in Japan and other developed economies, the lead in generating GDP growth passes from capital investment to inventories and then to consumption as the recovery matures (Posen 1998, chapter 1). The slowing of the growth rate in 2004Q2 was largely due to a draw-down in inventories, which is consistent with this pattern.

**STEADY FISCAL POLICY**

Japanese fiscal policy remains widely, and occasionally wildly, mischaracterized. While the government has not repeated the fiscal contraction of 1997 (including but not limited to the famous consumption tax increase), neither has its fiscal policy record been one of unremitting profligacy and stimulus. As figure 2 shows, the net contribution of fiscal policy (public consumption plus investment, excluding social security payments) was negative in 15 of the last 18 quarters—and in all but one quarter since 2001Q2—well before the recovery began. Spending on public pensions and social security has
risen markedly, doubling over the past decade in response to the aging Japanese population. But transfer payments are usually not considered when discussing fiscal stimulus. Thus fiscal policy has remained a drag, albeit a small one, on the Japanese economy throughout the current recovery and certainly not the source of unsustainable stimulus (as might account for some recent growth in the United States, for example).

There remains, however, no statistically significant correlation between movements in the Japanese household and government balance sheets. The recent decline in Japanese household savings cannot be explained by the burgeoning government debt, no matter how one measures it, but can be explained by movements in disposable income, inflation expectations, and real interest rates, supplemented with long-term demographics (Kuttner and Posen 2002). This apparent absence of Ricardian saving behavior justifies the reluctance of the Koizumi government to prematurely raise taxes before the recovery takes hold. Koizumi recently reaffirmed his pledge not to raise the consumption tax for the remainder of his term in office (which may be until 2007). The lack of Ricardian response also raises a longer-term question as to whether cuts in public consumption might better replace the ongoing cutbacks in public investment, even if the cutbacks were directed at current wasteful rural and highway construction projects. Either way, fiscal consolidation will not offer immediate growth benefits (though it is needed over the medium term).

The Japanese economy has been growing solidly for the last five quarters, at an average real annualized rate of 3.2 percent. The pace is sustainable, given Japan’s underlying potential growth rate, which has risen to 2 to 2.5 percent per year.

TOWARD REFLECTIONARY MONETARY POLICY

Over the last 18 months, the BOJ’s monetary policy has definitely moved back to the mainstream of central banking. Given the BOJ’s independence, a change in the membership of its Policy Board made a large difference in policy: The new leadership team (in office since March 20, 2003) has been associated with a rise in inflation expectations and a policymaking approach that is more flexible, more cooperative with the Ministry of Finance (MOF) and markets, more transparent, and over time more expansionary. Governor Fukui has been supported in these efforts by Deputy Governors Kazumasa Iwata (a former Cabinet Office economist) and Toshiro Muto (a former MOF official), who were appointed simultaneously with Fukui and who arguably aid in informal coordination with their former agencies.

The BOJ announced its key formal policy change on October 10, 2003, which consisted of three significant steps:

- pursuing cyclical recovery and structural reform at the same time (directly reversing former BOJ Governor Masaru Hayami’s oft-stated intent to keep monetary policy tight until reform was undertaken);
- committing to not raising interest rates again until core CPI showed a forecast (in the opinion of “many” Board members) of sustained year-over-year positive inflation and until the “most recently published core CPI registered zero percent or above” for at least a few months. However, the Board explicitly retained the right to not raise rates even should that occur; and
- increasing the quantitative targets for current account balances of banks and for direct purchases of government bonds, thus allowing the BOJ to leave massive foreign exchange interventions largely unsterilized.

This forward-looking policy commitment significantly reduces the risk of any policy mistakes out of the BOJ or premature interest rate increases. However, there is some concern about the BOJ’s “exit strategy,” regarding when it should start raising rates if inflation does rise and how it should unwind the liquidity it has been pumping into the banking system. After five-plus years of deflation, the BOJ would be lucky to have only this problem, which when it arises will be well within normal bounds as an operational matter, rather than face an existential question of how to affect the economy when the interest rate is zero. Also, as deflation eases and investment demand rises for whatever reasons, a maintained zero nominal interest rate becomes de facto a looser monetary condition.

As discussed in Kuttner and Posen (2004), it is difficult to determine the stance and effectiveness of monetary policy...
once the zero lower bound on nominal interest rates has been reached. One way of making this assessment is to look for evidence of “deflation scares,” where long-term interest rates move without a change in the monetary policy instrument. In Japan, with the call rate being held at zero since February 2001, this kind of event is relatively easy to discern. The idea is that since long-term interest rates respond to long-term inflation expectations, a decline in the long-term rate absent a change in the call rate would indicate a market assessment that monetary policy is too tight, given deflationary pressures.³

We found that a deflation scare fit almost precisely the period between the BOJ’s last interest rate increase and its reversal (September 2000–February 2001). Extending that work, as shown in figure 3, another deflation scare occurred during Hayami’s last year at the BOJ, seen in falling long-term Japanese government bond (JGB) yields while the call rate did not move, starting in March 2002. The first monthly data available after the BOJ’s new leadership team’s appointment in April 2003 indicated that the scare was lifted with that leadership change, and long rates and inflation expectations have remained higher since then.⁴ This is strikingly consistent with the markets seeing the change in BOJ leadership as a regime shift toward a credible commitment to counter deflation. What is particularly promising is that, given the lags of monetary policy, the real economy should only now begin to

³ Goodfriend (1993) created this approach in the other direction by looking for “inflation scares” in the United States.

⁴ This is not due to any movements in US long rates or monetary policy. Work in progress with Daniel Gould indicates that variation in the Japanese long bond rate Granger causes movements in the US long bond rate, which has an intuitive appeal since it is capital flows from Japan (and elsewhere) that have made up the bulk of treasuries purchased in recent years (although official purchases have concentrated at the short end of the maturity spectrum).

---

**Figure 3: Japanese deflation scare episodes, January 1992–July 2004**

![Graph showing deflation scare episodes from January 1992 to July 2004.](image)
feel the effects of this induced change in inflation expectations (and steepening of the yield curve). Hence, Japanese monetary policy may have more expansionary traction in the quarters to come.

**A MORE FUNCTIONAL AND SOUND FINANCIAL SYSTEM**

Had the NPL and other problems of the Japanese banking system been dealt with forthrightly, or even with just the delayed recognition and resolution typical of such banking crises (such as the seven years of the US savings and loan crisis), the effect on the Japanese economy’s overall macroeconomic performance would have been limited (Hoshi and Kashyap 1999; Posen 2003; and the chapters by Friedman, Glauber, Kashyap, and Shimizu in Mikitani and Posen 2000). Bad loans had begun to accumulate since Japan’s partial financial deregulation beginning in 1984, and bank supervisors did not adapt to the new environment. As late as 1996, after the Jusen failures but before the fall 1997 collapses of Yamaichi Securities and Hokkaido Takushoku Bank, the situation urgently required a response but by itself was not a major drag on the Japanese economy then.

By 1998, however, following the aborted recovery of 1997, the NPL problem had become a major macroeconomic problem in its own right, if not the dominant problem of the Japanese economy, and its size grew markedly through 2002. The ongoing political pressures for the rollover (evergreening) of loans to politically favored but bankrupt enterprises, in hopes of preserving jobs, and the near total erosion of bank capital between loan and equity losses created incentives for the problem to keep growing.

In this light, the last several quarters’ pickup in Japanese private investment is of great importance, not only as a source of growth but also as a sign of positive developments in both the nonfinancial and financial sectors. Among the nonfinancial firms, this pickup is a strong indication of the restructuring, particularly in the manufacturing and export sectors and also to a lesser degree through much of the Japanese economy. Debt levels and costs are down significantly in many companies, and some notable industries have consolidated (steel and semiconductors). Consequently, firms have been able to replace their aged capital stock in 2003–04 and show greater profitability during the recovery.

On the financial side, investment has picked up despite a less-than-wholesale bank restructuring. The absence of growth in bank lending due to financial distress in recent years—that is, the banks’ refusal to lend to new firms or low-risk projects (due to capital impairment)—has not provoked a true credit crunch this time when investment demand rose. Medium and large companies have been increasingly able to raise capital through securities, trade credits, and other means, as well as their own retained earnings. Small companies have been credit-rationed, but that is a good thing in Japan.

Meanwhile, the four merged City banks, minus the now nationalized Resona plus the larger regional banks, have had injections of capital through private means and the rise in the stock market (exemplified by the issuance of new shares by MTFG and the deal between Sumitomo-Mitsui and Goldman Sachs). The Resona nationalization example set by Takenaka and related policies do seem to have had some demonstration effect on these banks: Their lending behavior has improved accordingly over the last 18 months. They are throwing less good money after bad, in the sense that they are neither rolling over nor increasing loans to distressed firms, to the degree this can be measured, and the shares of lending and the Japanese economy allocated to high debt/low efficiency sectors has finally been declining.

For this part of the banking sector, which comprises more than half of all bank assets, NPLs as compared with balance sheets have declined (figure 4). These official figures probably understate the degree of improvement because, by common assent of market observers, these figures are now close to accurate representations of the size of the problem, whereas in the mid- and late 1990s the official figures were widely believed to be only half as great as (or an even smaller fraction of) the actual numbers. Even private banks that received public capital without sufficient conditionality in the late 1990s are now repaying some of it. This recapitalization and improvement

---

Japan’s Great Recession of the 1990s was the result of fiscal, financial, and monetary policy mistakes cutting off the economy’s natural recovery. For the last 18 months, however, the Japanese government has gotten out of the Japanese economy’s way.

---

5 The latest semiannual update of official data on NPLs for the major Japanese banks (through September 2004) will not be released until end November 2004.
Regional banks
Major banks

Source: Bank of Japan.

in regulatory oversight have not proceeded as quickly as the US government or the International Monetary Fund (IMF) would have wanted, but there has been real progress since fiscal 2002. Consistent with growing faith in that part of the banking system, the credit derivatives’ spread on debt issued by the major banks has shrunk (consistent with a declining Japan premium; see Ito and Harada [2003]). Some of the recent decline in the money multiplier seems to be traceable to Japanese households reducing their currency-to-deposit ratio (that is, having relatively more faith in bank accounts than in cash as stores of value).

The insurance sector, especially life insurers but also including underprovisioned casualty/property insurers, remains an accident waiting to happen. The sector has no capital, but over 30 percent of Japanese household savings remain there amid expectations of an implicit government guarantee. There also remains extensive double-gearing between insurers and banks via subordinated debt. Any significant economic difficulties will show up in this sector or in the local/smaller banks, which have not yet been subjected to full regulatory scrutiny. The hope is that with half of the Japanese banking system recapitalized, there will be more willingness to let these fail as needed, especially with limits to deposit insurance guarantees finally coming into place in 2005.

Along with some other observers, I had expressed concern during 2002 about the possibility of a financial crisis in Japan (Posen 2002a). Underlying that concern were two assumptions: first, that there would be no change in financial supervision or monetary policy, so the NPL problem would continue to worsen in a vicious cycle with deflation; second, that there would be a liquidity (not a solvency) problem for the Japanese government if important local governments, banks, or life insurers failed, requested bailouts, and prompted flight of capital from the Japanese financial system. Thankfully, these dire events did not occur.

One clear reason for the ongoing stability was the change in policy for the better (described earlier) beginning in spring 2003, which removed the main source of the risk. The other reason, as some Japanese officials counted upon, was that no money would leave Japan until there was outright reneging on government obligations/savings accounts. Given ample Japanese national (as opposed to public) savings, I was in agreement there could be no crisis until money actually left Japan.

6 At the time, my Institute colleagues Morris Goldstein and Michael Mussa, IMF veterans of many crises, made a similar point that the money would not leave until there was real direct pain for average savers, and thus there was plenty of money available for the Japanese government to hold off crises.
or at least the financial system (Posen 2000), but I expected too much forward-looking behavior on the part of Japanese investors. The lack of movement of Japanese savings illustrates once again that no one has ever lost money overestimating the passivity of Japanese savers.

HIGH AND RISING POTENTIAL GROWTH

The current strong recovery emerged—and has a chance to be ongoing—because the Japanese government got out of the economy’s way and did something to recapitalize the banking system. Tales about the Japanese system’s structural decline are unnecessary to explain Japan’s Great Recession, because most of the structural problems today are the same as those always present in postwar Japan, and economic production has not changed fundamentally.

All anecdotal evidence, however, is in the direction of structural improvements over the last 20 years, which should raise productivity. These improvements are partial even within sectors and do not represent the kind of structural transformation and rebirth that some commentators (e.g., Katz 2003, Porter, Takeuchi, and Sakakibara 2000) on the Japanese economy have deemed a prerequisite for sustained recovery in the absence of fiscal stimulus. These structural improvements are nonetheless positive steps and should be taken into account when assessing Japan’s potential growth rate (Posen 2001).

A short list includes financial deregulation (albeit initially mismanaged when drawn out), energy price deregulation, retail restructuring, and entry of international competition in some areas. Corporate governance has begun to shift toward tighter control of managerial abuse of free cash and even occasionally to contests for corporate control. Additional deregulation since February 2003 of the minimum capital/size needed to legally found a company has released pent-up demand for small start-ups that had previously not been allowed to form.

Labor-market change and reform is ongoing, with the Ministry of Economy, Trade, and Industry and the Ministry of Labor proposing retraining and placement programs to assist those workers who have left their old jobs, as well as to improve job matching and investment in human resources.

The realization by many unemployed, underemployed, and out-of-the-workforce Japanese—especially women and recent college graduates—that they must take more initiative and show more flexibility to get the best opportunities in today’s Japan will have lasting beneficial effects. This realization has already resulted not only in a growth of part-time employment in Japan but also in a decline of the average unemployment rate since the recession trough of January 2002. In the two previous officially designated Japanese recoveries of the last decade (from October 1993 and January 1999), the unemployment rate actually continued to rise from the trough forward.

Potential output growth for an economy comprises the sum of its labor force growth and productivity growth. For Japan, with working-age population declining, albeit with some possibility of increased female participation or increased retirement age or both, the contribution from labor-force growth is zero or –0.1 percent per annum for the next several years. Thus, potential output growth in Japan over that period will be essentially equal to the rate of productivity growth. If Japan’s technological and productive capabilities remain as advanced as they were in the 1980s and as capable of keeping up with and generating innovation—which I argue in Posen (2002b) they have—then there is no reason to think that Japanese average productivity growth has declined from the underlying growth rate before the 1990s.

Taking into account the positive developments listed above and putting a value on them in line with OECD estimates of how much comparable reform has paid off elsewhere, Japanese potential growth should have risen to over 2 percent a year, perhaps 2.5 percent, which is significantly higher than the estimates of 1 to 1.5 percent utilized by the Japanese government and many forecasters. Over the last two years (and in previous recoveries since the bubble), Japan’s average rate of productivity growth was likewise 2.5 percent (figure 5).

DOWNSIDE RISK FROM CHINA

Japanese growth remains vulnerable to a sharp slowdown in China, given China’s role in Japan’s export picture, and to the

---

7 The theories ascribing Japan’s stagnation to a “deflation trap” or to trade-political pressures from the United States via the exchange rate, such as McKinnon and Ohno (1997) and Mikuni and Murphy (2002), rather than to more mainstream macroeconomic analyses, are similarly disproved by the current Japanese recovery. At a time such as now, when protectionist pressures are rising for diminished exports to the United States and for appreciation of the yen against the dollar, these theories would predict a worsening of deflation and recession, the opposite of what is being seen. See Posen (2003).

8 Not all reforms result in permanent increases in the trend productivity growth rate. However, some reforms, such as labor-market restructurizing and financial-market rationalization, will have positive effects on growth every year for several years as resources are reallocated from less rewarding uses or returns rise on productive factors or both. After this transition period, the growth rate would then go back to some underlying growth rate. For more extensive discussions of the challenges in estimating potential growth rate and the range of estimates, see Posen (2001) and Kuttner and Posen (2004).
Figure 5: Japanese labor productivity growth, 1996Q4–2004Q2

Source: OECD Economic Outlook #75, 2004, vol I.

Figure 6: Share of total Japanese exports to selected regions, 1998Q1–2004Q1

Source: Direction of Trade Statistics and International Financial Statistics, August and September 2004, respectively.
knock-on effects a Chinese contraction would have on the rest of Asia. The vulnerability of Japan to a decline in Chinese growth, however, should not be exaggerated for three reasons, notwithstanding the need for an investment slowdown in China (as called for by Nicholas Lardy).

First, while Japanese export growth in 2003 was mostly driven by increasing demand from China, that pattern has shifted during 2004 to other trading partners in Asia. Japanese exports to Asia excluding China and Hong Kong have accounted for 5.6 percent of the 13 percent growth in exports in fiscal 2004 so far, while China and Hong Kong were the source of 3.6 percent of the growth (MOF figures). Figure 6 shows that exports to China have leveled off at around 18 percent of total Japanese exports, less than the 24 percent to the United States (even after a multiyear decline) and the 29 percent to Asia ex-China. Total exports to China constitute only 0.6 percent of Japanese GDP, even after the export growth in the last two years; excluding trade with Hong Kong, which should be somewhat independent of a credit contraction in China, that share drops to 0.4 percent. Should the Chinese government revalue the yuan—with other Asian currencies following it up against the dollar—an appreciated yen would still leave the Japanese economy quite competitive in China and the rest of Asia. So this pattern should continue.

Second, there is some evidence from the composition of exports to China that Japanese firms are selling a disproportionate amount of their capital and higher-end goods to the market-driven coastal sectors of the Chinese economy. A credit quality crackdown in China, as has already begun, would focus on the still state-owned/funded inland sectors of the Chinese economy, not the internationally oriented parts, and a revaluation of the yuan would increase the purchasing power of the entrepreneurs and businesses in this region.

Third, Japan will sustain its investment and licensing relationships in China because it is increasingly moving production into China and out of the Japanese home islands. On the one hand, Japan is shipping out parts and inputs to China and then reexporting the finished products to the

**Figure 7: Japanese FDI in China, fiscal 1989–2003**

![Japanese FDI in China, fiscal 1989–2003](chart)

*Source: Ministry of Finance, Japan.*
advanced economies. In a decomposition of Japanese exports to China, Cameron Umetsu and Colin Asher (2004) find a predominance of “raw materials and parts for the production process, not finished goods to be consumed by end users.” On the other hand, the flow of Japanese foreign direct investment into China is exploding because of the Japanese commitment to production in China: It has increased fourfold since 1999, from ¥85 billion to ¥355 billion in 2003 (figure 7). As Keidanren, the Japanese business association, has advocated, there is a shift under way in Japanese manufacturing strategy from “Made in Japan” to “Made by Japan,” and China is the primary location of that trend.
REFERENCES


The views expressed in this publication are those of the author. This publication is part of the overall program of the Institute, as endorsed by its Board of Directors, but does not necessarily reflect the views of individual members of the Board or the Advisory Committee.