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Markets Can Ease the Food Crisis

With proper incentives, developing nations can profit from higher prices.

by Craig J. Richardson, PhD, Visiting Research Fellow

Rapidly rising food prices are typically viewed as having severe, if not negative, consequences for the world's poor. In 2008, Robert Bruce Zoellick, president of the World Bank, said that the drastic increase in food prices could mean "seven lost years" in the fight against worldwide poverty.

The International Monetary Fund's managing director, Dominique Strauss-Kahn, chimed in as well, predicting, "terrible consequences… and at the end of the day most governments, having done well during the last five or 10 years, will see what they have done totally destroyed, and their legitimacy facing the population destroyed also."

Three years after those apocalyptic words were spoken, the issue has not gone away. Prices of agricultural commodities are once again skyrocketing.

Yet for the United States, the problem of feeding the world's poor, who are presumed to be the most at risk from rising food prices, is far down on many citizens' priority lists. The nation is weighed down with rising deficits, wars in the Middle East, and economic problems at home. Among these problems: soaring prices for agricultural commodities.

Wholesale food prices grew in February 2011 by 3.1 percent, their highest rate in more than three and half decades. Rapidly increasing prices of vegetables, meat, and dairy products are impacting restaurant chains and supermarkets. Customers even need to ask at Wendy's restaurant for a tomato on their hamburger, and grocery stores are now selling vegetables of lesser quality and in lesser quantity.

The speed at which prices rise is sometimes more important than the ultimate level that they reach.

Prices of global products such as corn, wheat, soybeans, coffee, and other commodities have been sharply rising as well. Rising costs of animal feed have driven up the costs of eggs, ground beef, and milk. Lastly, the demand for biofuels (such as ethanol) has increased the worldwide demand for corn, also pushing prices of corn-based products upward.

Even as food prices have shot upward around the world, they have also become more volatile. This volatility is not a new phenomenon, only caused by recent globalization trends. The chart on page 2 shows that food prices have been volatile during other time periods, including World Wars I and II, and in the early 1970s following a breakdown in the fixed-exchange regime of the Bretton-Woods agreement.

Rapid change is indeed unsettling for most people. Sudden spikes in food prices caused riots around the world in 1977, 2008, and this year. The speed at which prices rise is sometimes more important than the ultimate level that they reach. People are unable to make adjustments and find substitutes in the short run, causing huge anxiety and distress. This is the reason people buy insurance in other areas of life.

Most people are risk-averse and are willing to pay something to avoid volatility. In the area of food prices, the very structure of big agriculture in the developed world provides some protection against price volatility. But no such insurance market mechanism exists for the average consumer served by small farmers in the developing world.

The recent volatility of food prices shows that the problems of the developed and developing world have become more intertwined. But rather than trying to develop "win-

win" solutions for both parties, most World Bank and IMF proposals focus on income redistribution from rich to poor countries. Feeding the world's poor becomes a way for the rich countries to escape the guilt about the privations of the have-nots. But the all-too-common impulse is merely to fill the trough of the developing world. This focus on short-term relief lacks a long-term approach to solving the problem of food shortages and high food prices, which both the United States and the poor countries could solve together.

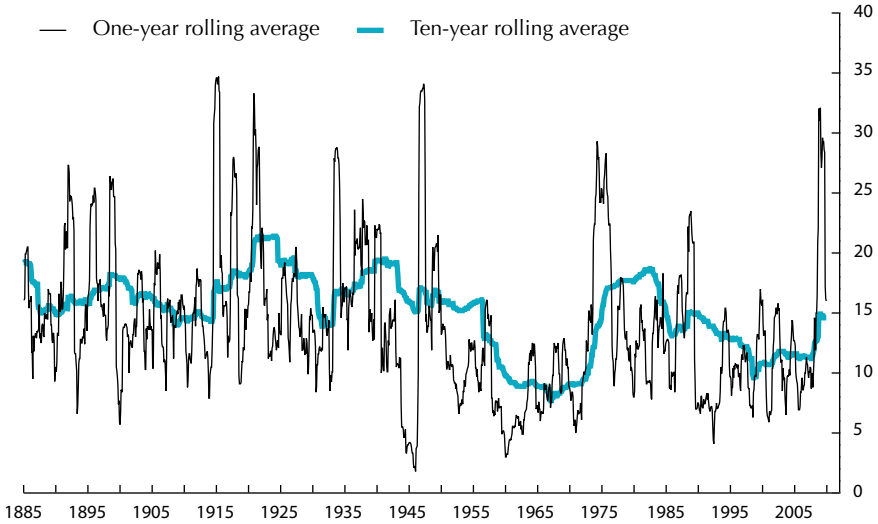
A good way to start thinking about a longer-term solution is to consider an apparent paradox: If most developing countries are agricultural and if world food prices are rising, then why wouldn't such economies welcome higher prices for agricultural commodities? Higher prices mean higher revenues, a larger GDP, and more dollars earned from exports. This would increase the world food supply, enrich the poorer countries, and keep food prices under check.

It's only partially so. The difficulty is that in poor countries, agricultural products are eaten as well as exported, so rising food prices hit the urban poor (who do not grow their own food) especially hard. For the bottom billion poor in the developing world, food expenditures may take 60-80 percent of their daily budget. Even a 10 percent rise has sharply negative effects. Farmers will benefit though, as will urbanites who have businesses that support the farmers. But with so many people close to subsistence, policy makers often justify cheap food policies for poor countries on grounds of social justice, or more concretely, to avoid riots in urban areas.

This short-term thinking leads to ill-conceived economic policies that perpetuate price volatility and food shortages. In many poor countries, government wholesalers set prices for grains and pay little attention to world prices.

Zimbabwe, for example, has a Grain Marketing Board that fixes prices and provides little incentive for farmers to produce more when world prices rise. Countries such as Bangladesh, Brazil, Cambodia, Thailand, and Vietnam put export taxes on rice, and Argentina, India, Kazakhstan, Nepal, and Pakistan put export taxes on wheat.

Real Food Price Volatility
(standard deviation of annualized food price inflation)



Author's note: These calculations for food price volatility are based on 6 commodities' spot prices, including corn, palm oil, rice, soybeans, sugar and wheat. The prices have been adjusted for inflation. The information comes from Figure 1 in a 2010 IMF Working Paper, "What Explains the Rise in Food Price Volatility?" by Shaun K. Roache.

The idea is to create a disincentive for farmers to sell their products abroad in order to keep food supplies within a country's borders. What these taxes do, however, is hamper the flow of trade and limit the incentives to increase food production when world prices rise. This inadvertently hurts a developing economy's ability to expand and to diversify into other products.

The lack of land titling in many of these regions also gives little incentive to irrigate or manage farmland well. Thus, farms are kept small and relatively inefficient, not benefiting from gains from economies of scale. As a result, the developing world is less able to step up production, or in an economist's jargon—their supply is very inelastic with respect to price.

There is an interesting assumption made by the large majority of development economists studying agriculture: Most poor people on farms want to be better farmers. This unquestioned assumption leads to a whole host of World Bank initiatives that help farmers get access to fertilizer, improved irrigation, and better seeds.

History shows that most people want to *escape* a life of farming as soon as possible, given the choice. In 1860 in the United States, for example, farmers made up almost 60 percent of the workforce. By 1920, that share had fallen to 27 percent. In 1960, it was 8 percent. Today, it is less than 3 percent. The number of farms fell from 7 million in 1935 to less than 2 million today. In addition, today the largest 8 percent of all farms rule the roost. They account for 68 percent of all agricultural production.

Clearly rising mechanization rapidly improved productivity, but a simple lesson to be drawn is that most people don't like farming. Farming is hot, exhausting, and financially risky. (The more than 100 million Chinese who left rural farm life to enter cities in the last decade would no doubt agree.) Freed from

farming, Americans became teachers, electricians, software developers, airplane pilots, or even comedians. The complexity and inventiveness of the U.S. economy could not have been possible otherwise. The farmers who remained were the best at farming and eventually more productive as a tiny group than all the others put together.

Here is where the notion of insurance comes into play. As U.S. farms have enlarged, they have played a bigger part in dampening swings in food prices, in effect acting as an insurance mechanism for consumers. Not only are they 50 percent more efficient than small farms, but operators of the largest farms are more likely to use risk-management strategies. They are more diversified than small farms and are also more likely to insure part of their crop to minimize losses if disaster strikes. They also produce or sell their corn under marketing contracts that generally reduce farmers' exposure to price variations.

So how does that affect U.S. consumers? Although our food prices have gone up, in relative terms, we are far more protected against volatility in prices than poor countries. In addition, we spend much less on agricultural products to produce our food.

When an American child eats a bowl of corn flakes, for example, less than 5 percent of the cost of the breakfast is because of corn (the rest comes from manufacturing, transportation, and marketing costs). In contrast, a child in a developing country such as Ghana might eat a meal derived from corn meal, of which corn is the major cost.

In contrast to what many policy makers and development economists say, there are "win-win" solutions to the problem of spiking food prices that would benefit both poor and rich countries.

First, give people the opportunities to move out of agriculture. Policy makers should encourage the best and brightest farmers to remain in farming, but not assume all poor people want to be farmers. Given the chance, most would prefer working in a factory, driving a truck, or being in an air-conditioned office. Economic policies should not steer people into continuing a life of farming small tracts of land under inefficient and risky conditions. This does nothing to help dampen volatile food prices and keeps many people at a subsistence level.

Next, end export taxes. Export taxes and other agricultural government policies have the long-run effect of discouraging agricultural production and keeping people at the subsistence level. If export taxes were removed (perhaps slowly to give time for adjustment), revenue from farms would increase and stimulate demands for retail products in other sectors.

Finally, improve the system of property rights so that smaller farms can more easily be consolidated into larger, more efficient ones. Large mechanized farms create a demand for workers who supply gasoline, computers, trucks, and irrigation equipment, among other things.

Each of these translates into potential jobs for former subsistence farmers that pay better and are more stable than a life of farming a small tract of land. Ultimately, this will allow a market for insured food prices to develop, as it has in the United States.

The United States' policies also matter. Our trade barriers prevent or discourage poor countries from selling their agricultural products to us. Such policies have largely stemmed from powerful farming lobbies, one downside of large farms. For the United States to realize gains for the improvements in the developing world, we too must lower trade barriers to enjoy the eventual bounty produced by more efficient producers of food from overseas.

ASK THE EXPERT

Health Savings Accounts

Health savings accounts save money by allowing people to use pre-tax dollars for medical expenses that are not covered by insurance. The money can pay for qualified expenses incurred by the beneficiary and dependents.

HSAs are similar to IRAs. They usually are set up through employers, but self-employed and unemployed people also may contribute, as can people on behalf of an eligible individual.

To be eligible, individuals must be covered under a high-deductible health plan (minimum $1,200 for self-only coverage), cannot be enrolled in Medicare, and cannot be claimed as a dependent on another person's tax return.

The accounts can be set up with banks, insurance companies, or other entities approved as trustees for IRAs.

Contributions are deductible when computing adjusted gross income. But contributions made by the self-employed do not reduce the self-employment tax.

The key advantage these accounts have over Flexible Spending Accounts is that account holders do not have to spend contributions in the year/period that they make them.

Limits to annual contributions depend on the account holder's age and whether the account is for an individual or for a family. Limits also are impacted by employer payments and transfers from IRAs.

Distributions that are not used for qualified medical expenses are included in gross income and usually subject to a 10 percent penalty.

—Kevin T. McGrath, CPA, is a tax partner with BST Advisors, LLC.

To submit questions for future columns, e-mail asktheexpert@aier.org. For guidance on specific situations, consult your lawyer or financial advisor.

Higher Tax Rates Won't Fix Deficits

History has shown that increasing the tax burden of the rich would have little impact on cutting the deficit. Instead, it slows growth.

by Julie Ni Zhu, Research Intern

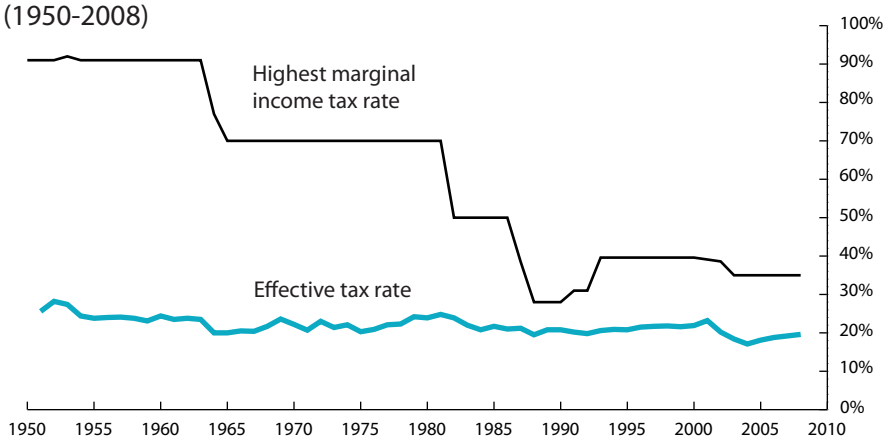
Higher tax rates do not mean that the government collects more in taxes, and lower tax rates do not mean that the government collects less. Many of the federal deficit-reduction proposals include tax increases. The assumption is that these increases will improve tax revenues and help close the gap. The historical evidence suggests otherwise.

Over the years, the highest individual marginal income tax rates have ranged widely. They were as high as 91 percent during the 1950s and as low as 28 percent during the late 1980s. If we look at the historical IRS tax data from 1950 through 2008, we can see federal personal income tax receipts as a proportion of personal taxable income have remained remarkably steady at around 20 percent. (See chart.) Within the relevant range, it seems that no matter what the marginal tax rate is, we get an effective tax that is relatively stable.

To make sense of this, let's look at two different periods with similar GDP growth. GDP grew 10.4 percent between 1990 and 1994. During the same period, the highest marginal tax rate increased from 28 to 39.6 percent. Between 2001 and 2005, GDP grew 11.3 percent. The highest marginal tax rate decreased from 39.1 to 35 percent. In both periods, the actual tax receipts as a percent of total economy were almost at the same level. The only explanation is that a change in tax rates causes a significant change in the tax base, offsetting the rate change.

Tax rates and the tax base move inversely, but disproportionately depending on whether the rate is increased or decreased. The higher the tax rate is, the more incentive taxpayers have to seek ways to avoid

Marginal Tax Rates vs. Effective Tax Rates
(1950-2008)



paying the tax, legally or illegally. Let us look at the top 1 percent of taxpayers. During the early 2000s, when the government lowered the top marginal tax rate by 4.6 percent, their effective tax rate decreased by 4.5 percentage points. In contrast, during the early 1990s, when the government raised the marginal tax rate, it did not increase the effective tax rate for these taxpayers similarly. An increase in the marginal tax rate of 11.6 percent only increased the effective tax rate by 3.1 percentage points.

A cursory look at the data from the 1950s and 1960s might lead one to think that high marginal tax rates are consistent with high economic growth. And in recent years, marginal tax rates have been lower, while the rate of GDP growth has slowed. This is misleading. These experiences were driven by other factors in the economy. A 2007 study by Christina and David Romer found that tax policies that raise taxes by 1 percent of GDP lower the real GDP by more than 2 percent.

Tax cuts are stimulative. They leave people with more disposable income with which to fuel consumer spending, the largest component of aggregate demand. This helps to increase tax revenue by increasing the tax base through GDP growth. Lower tax rates also create less incentive to pay tax lawyers or tax accountants to help them avoid the tax, so that more of the income that they have can be directed to more productive uses.

Increasing the marginal tax rate will not bring the government more revenues. Quite to the contrary, by slowing the economy it could actually undercut efforts to cut the deficit through increased taxed receipts.

AIER | gold corner

Price of gold, March 31, 2011, London PM fix.

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AIER | Business-Cycle Conditions, April 2011

The Consumer Returns, But Timidly

People are spending more and cautiously borrowing. But no clear engine of growth has emerged to drive the still-modest recovery.

by Polina Vlasenko, PhD, Research Fellow

AIER's statistical indicators of business-cycle conditions show that the recovery continues its slow progress. Among the primary leading indicators, nine out of ten series with a discernible trend are appraised as expanding—the same as last month. Seven indicators have reached new highs for the current cycle, but others have slowed. The cyclical score of these indicators, which is based on a separate, purely mathematical analysis, dropped to 86 from 93 last month. A value above 50 indicates that expansion is more likely than a contraction.

Data suggest strengthening in consumer spending and even some encouraging signs in the labor market.

An early sign of growing consumption is an increase in *new orders for consumer goods*. The December figures were revised upward and, despite a small drop in January, the three-month moving average of the series reached a new high since the start of the recovery. The series has been expanding almost continuously since reaching bottom in April 2009. Increasing new orders for consumer goods suggest that firms are seeing early

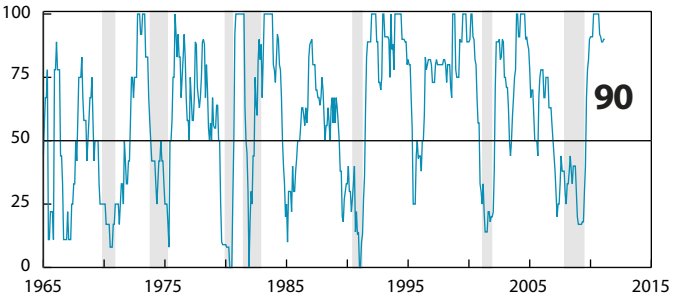
Statistical Indicators of Business-Cycle Changes

Change in Base Data					*Cyclical Status*		
Nov.	*Dec.*	*Jan.*	*Feb.*	***Primary Leading Indicators***	*Jan.*	*Feb.*	*Mar.*
+	+	+	+	M1 money supply	+	+	+
+	+	+	+	Yield curve index	+	+	+
-	+	+	+	Manufacturers' supply prices	?	+?	+
+	+r	-		New orders, consumer goods	+	+?	+
+	+	-		New orders, core capital goods	+	+	+
-	+	-	-	New housing permits	-	-?	-
+	-			Ratio of sales to inventories	?	?	?
+	-	+	+	Vendor performance	?	?	?
+	+	+	+	Index of common stock prices	+	+	+
nc	+r	-	+	Average workweek, mfg.	+	+?	+?
+	+	-	+	Initial claims, unemplmt. insurance*	+	+	+
+	+	-		Change in consumer debt	+	+	+
				Percentage expanding cyclically	*89*	*90*	*90*
				Primary Roughly Coincident Indicators			
+	+	+	+	Nonag. employment	+	+	+
+	+	+r	-	Index of industrial production	+	+	+
+	+	+		Pers. income less transfer payments	+	+	+
+	-			Manufacturing and trade sales	+	+	+
-	+	+	+	Civilian emplmt. to population ratio	-	-	-?
+	+			Gross domestic product	+	+	+
				Percentage expanding cyclically	*83*	*83*	*83*
				Primary Lagging Indicators			
nc	-	-	-	Avg. duration of unemployment*	?	-	-
-	+			Manufacturing & trade inventories	+	+	+
-	+	-		Commercial & industrial loans	?	?	?
-	-	-		Ratio of cons. debt to income	-	-	-
-	-			Chg. in labor cost/output, mfg.	+	+?	+?
nc	nc	+	-	Short-term interest rates	?	?	?
				Percentage expanding cyclically	*67*	*50*	*50*

nc No change. r Revised. * Inverted. Under "Change in Base Data," plus and minus signs indicate increases and decreases from the previous month or quarter and blank spaces indicate data not yet available. Under "Cyclical Status," plus and minus signs indicate expansions or contractions of each series as currently appraised; question marks indicate doubtful status when shown with another sign and indeterminate status when standing alone.

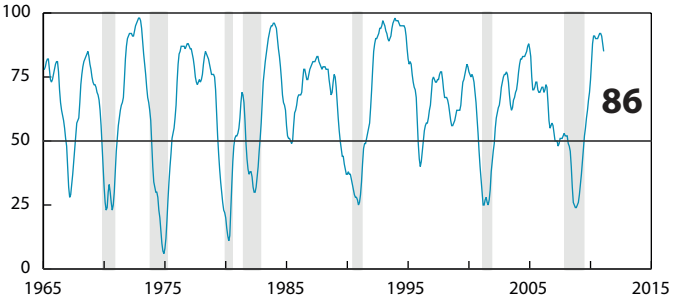
AIER Leaders Expanding and Cyclical Score Charts

Percentage of AIER Leaders Expanding



The percentage of leaders expanding is based on the analysis of 12 statistical series that move reliably in advance of general business activity. The cyclical score is based on a separate, purely mathematical analysis. For each measure, a score above 50 indicates an expansion is likely.

Cyclical Score of AIER Leaders

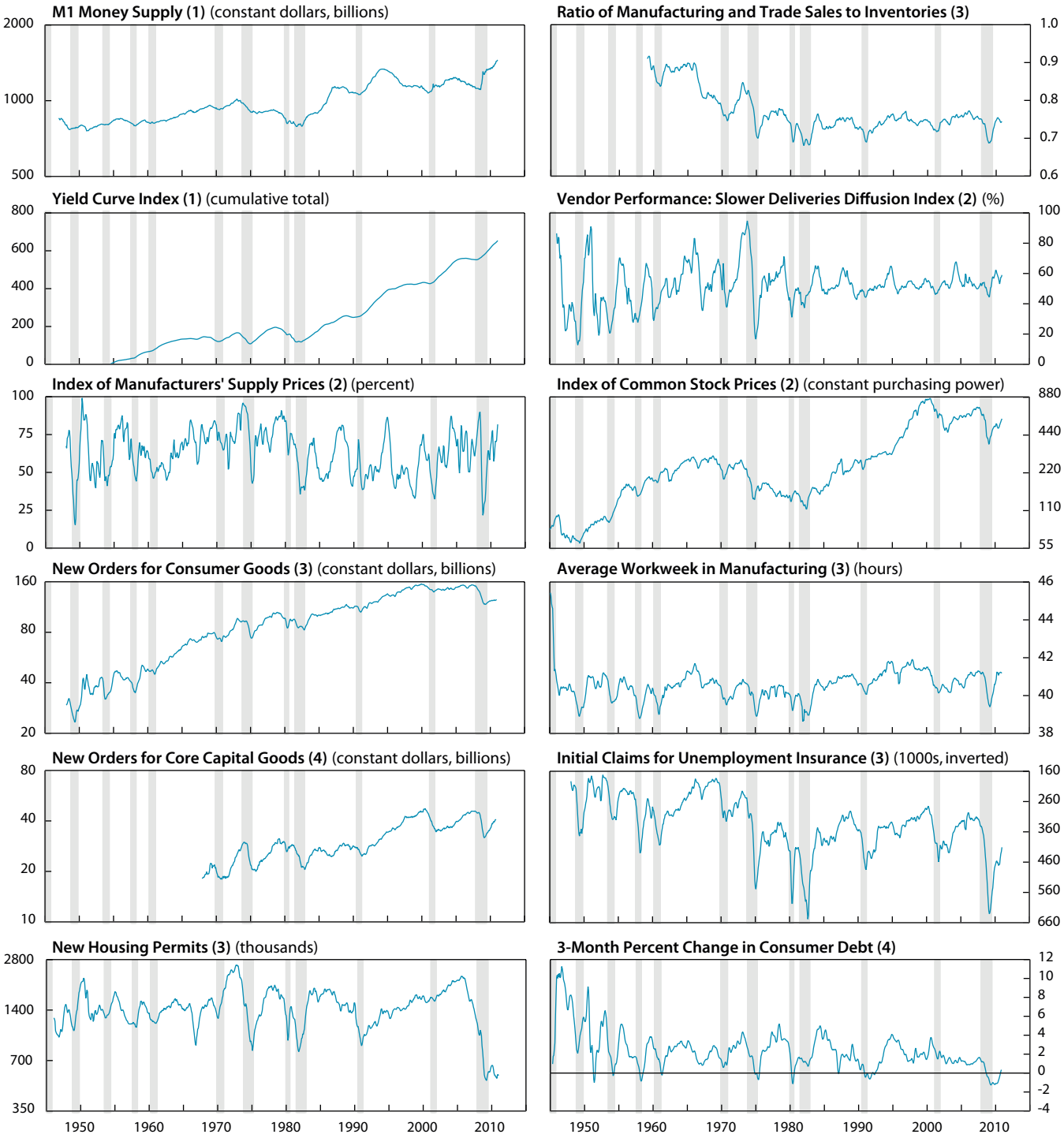


signs of growing consumer demand. Expecting consumer demand to pick up, businesses are ordering more goods and materials.

The latest data for *gross domestic product* confirms this. In the fourth quarter of 2010, personal consumption expenditures grew at an annual rate of 4 percent, the strongest growth in four years. This increase was large enough to offset falling investment and result in positive growth of GDP of 3.1 percent for the quarter.

The data also suggest that people are borrowing again. The *3-month percent change in consumer debt* turned positive in October. After falling for two years, consumer debt is now growing. Individuals appear to feel confident enough to borrow and spend again. And they seem to be doing this in a responsible manner. Borrowing has not outpaced income—the *ratio of consumer*

Primary Leading Indicators



debt to personal income (one of our lagging indicators) continues to fall.

With growing consumer demand and confidence, firms appear to be doing well. The rising *index of common stock prices* reflects the optimism about future business profits.

Employment also seems to be improving, however slowly. Massive layoffs have stopped and *initial claims for state unemployment insurance* have dropped below 400,000 a week for the first time since June 2008.

Events around the world add a layer of uncertainty on top of the existing challenges to the recovery.

Nonagricultural employment has been rising for a year. Since reaching the bottom in February 2010, the economy as a whole added 1.3 million jobs. This includes an addition of 1.5 million jobs to private payrolls and a reduction in government jobs by nearly 0.3 million, mostly at the local level.

Even the *ratio of civilian employment to population*, which has been falling for three years, increased in the last three months. It is still at the extremely low level of 58.4 percent, but the increase was sustained enough for us to upgrade the series to probably contracting. Even if the upward trend continues, it will likely take some time for the ratio to return to the average level of around 63 percent seen in the 20 years prior to the recent recession. This change in the appraisal did not affect the percentage of coincident indicators expanding, which remains at 83. The cyclical score of coinciders also remains unchanged at 88. The coincident indicators continue to suggest that the recovery is underway.

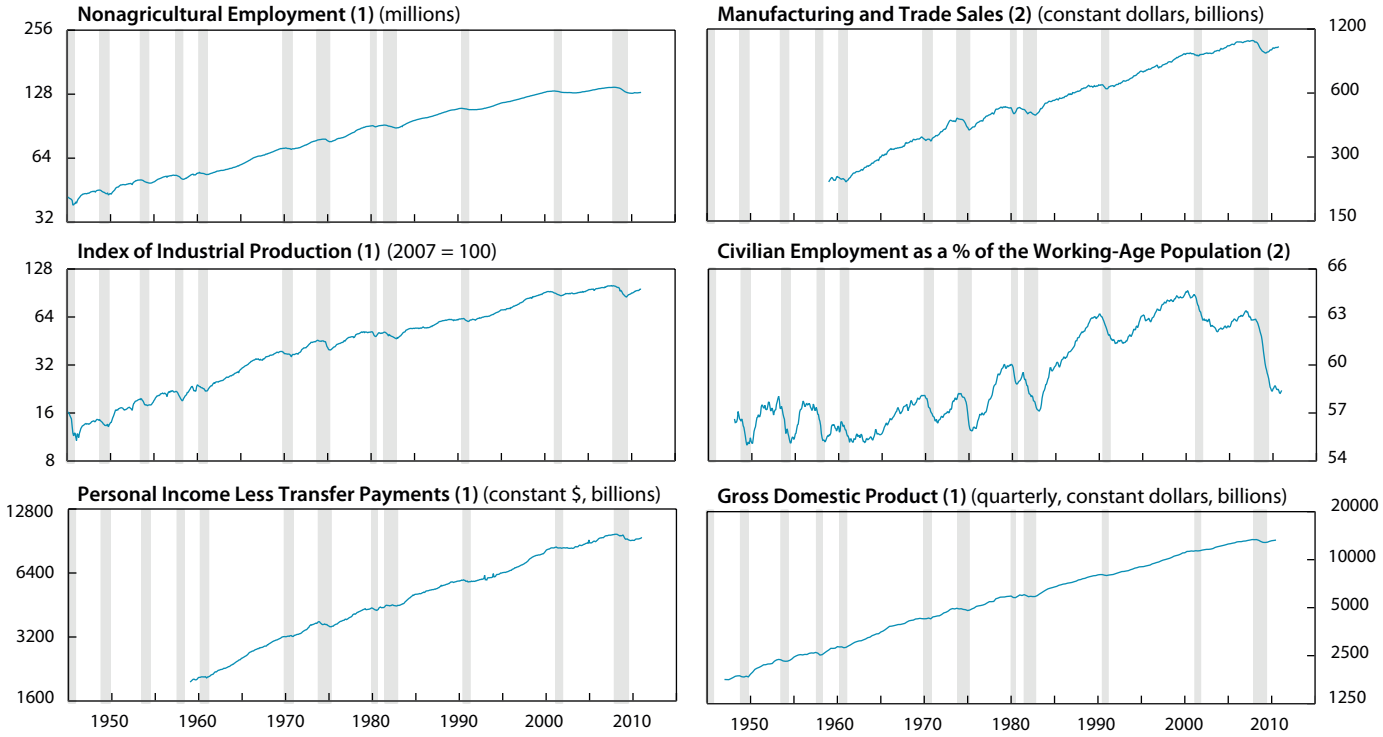
But it is facing some headwinds.

We have to remember that during the recession the economy lost 7.5 million jobs. Even with the recent increases, the employment situation remains quite grim. The unemployment rate is hovering close to 9 percent. The *average duration of unemployment* keeps lengthening. It reached 37.1 weeks in February, the longest since data began to be collected in 1948. A related measure, the median duration of unemployment reached 21.2 weeks, indicating that half of all the unemployed remain out of work for longer than five months.

Events around the world add a layer of uncertainty on top of the existing challenges to the recovery.

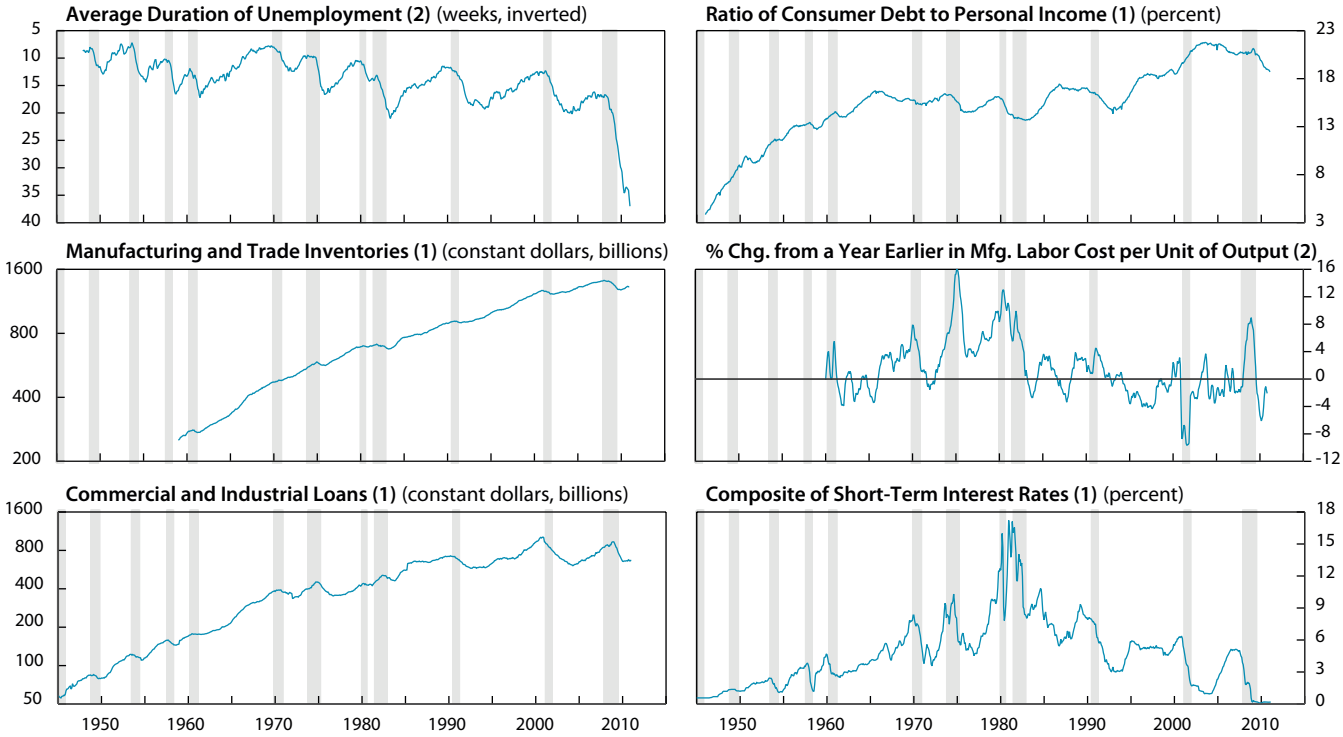
Political turmoil in the Middle East has created several problems. It has resulted in rising oil prices, which can drive up production costs and depress spending on consumer goods other than energy. Rising oil prices may

Primary Roughly Coincident Indicators



Notes: 1) Shaded areas indicate recessions as dated by the National Bureau of Economic Research. 2) The number in parentheses next to the name of a series is an estimate of the minimum number of months over which cyclical movements of a series are greater than irregular fluctuations. That number is the span of each series' moving average, or MCD (months for cyclical dominance), used to smooth out irregular fluctuations. The data plotted in the charts are those MCDs and not the base data.

Primary Lagging Indicators



also spark inflation, especially in an environment where the Federal Reserve seems willing to expand the money supply to unprecedented levels.

With the United Nations resolution on Libya, an extended military conflict in the region becomes a possibility. That the United States might be drawn into a military operation that can potentially be prolonged raises a whole new set of risks, including a worry about an over-extended federal government budget.

As if the turmoil in the Middle East was not enough, the earthquake in Japan has added to the uncertainty. It can have two different types of consequences, which are not mutually exclusive. Japan will have to undertake a massive rebuilding effort. Companies that supply products useful for the rebuilding may see demand for their products grow. But Japan is also a net exporter, supplying many products to other countries. Companies that normally import from Japan parts or components used in their own products may see their supply chains disrupted. Many high-tech companies, and even automakers, fall into this category.

The disruptions to the auto industry may already have started. Toyota, Honda, and Nissan had to close some of their plants in Japan. It remains unclear when these factories will be able to resume normal operations. This has disrupted the supply of parts not only to these Japanese automakers in U.S., but also to more traditional American automakers. Both Ford and GM announced that they will halt production at some of their plants in an effort to conserve parts normally delivered from Japan.

And then there are internal imbalances in the U.S. economy. Government budgets at all levels are over-extended. State and local governments, which cannot borrow quite as easily as the federal government can, have already started to cut their expenditures. These cuts have subtracted 0.3 percentage points from GDP growth in the fourth quarter of 2010. The federal government may have to follow suit at some point. It already has started a freeze of nondefense discretionary spending. Cutbacks in government spending, especially when they involve layoffs or even simply hiring freezes, do nothing to improve the employment situation.

The housing sector also remains depressed. *New housing permits* decreased once again in February, reaching an all-time low of 517,000 permits per month. Home prices continue to fall: Both the S&P/Case-Shiller Home Price Indices and FHFA House Price Indices decreased in the fourth quarter of 2010. Despite lower prices, homes sales of both new and existing homes also fell in February, as did the median sale price. The inventory of homes for sale increased to the level of more than 8.5 months of supply. With falling prices and a large inventory of unsold homes, housing construction and related employment is not likely to revive any time soon.

In most business-cycle recoveries since World War II, housing construction and residential investment grew, contributing positively to GDP growth in the early stages of recovery. This does not appear to be the case in the current cycle. This time the recovery will get no help from the housing sector. It will have to find some other engine of growth.