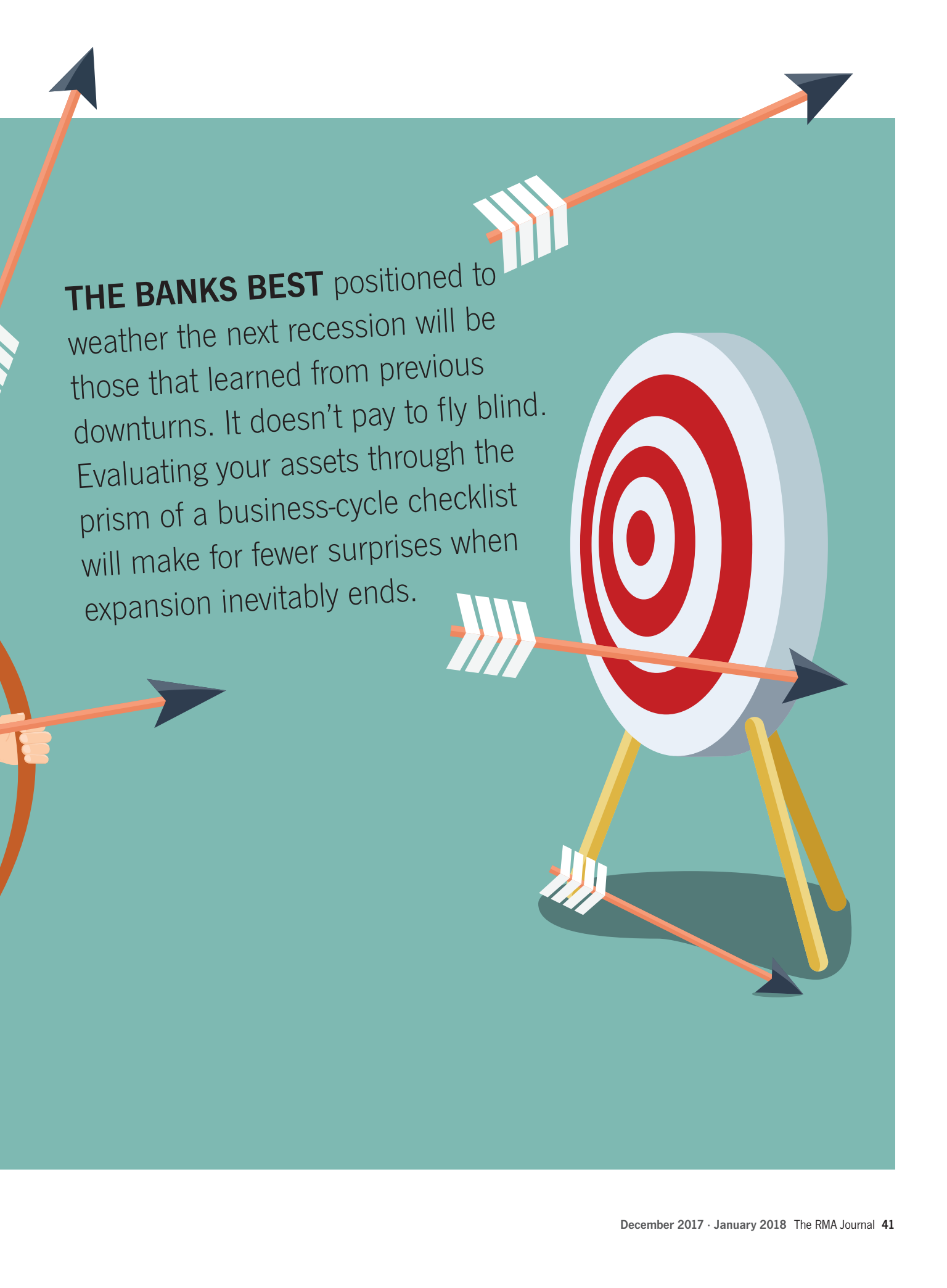


Flying Blind

into the
**Next
Recession?**

Consult a
Business-Cycle
Checklist
—
(Part I)



An illustration on a teal background. On the right, a target with a red bullseye and concentric rings is mounted on three yellow legs. Three orange arrows with white and green fletching are shown: one is in the bullseye, one is in the outer ring, and one is on the ground. On the left, a hand is shown holding a bow, with an arrow pointing towards the target.

THE BANKS BEST positioned to weather the next recession will be those that learned from previous downturns. It doesn't pay to fly blind. Evaluating your assets through the prism of a business-cycle checklist will make for fewer surprises when expansion inevitably ends.



“We cannot solve our problems with the same thinking we used when we created them.”

—Albert Einstein

BY RICK BUCZYNSKI AND KENNETH I. BROWN

NO ONE KNOWS when the next recession will start, so the key for banks is to prepare for it. Start with a practical framework for managing lending growth and exposure—with an eye on concentration risk. Be ready to apply the framework at the credit portfolio level and on a loan-by-loan basis. And don't ignore the need to ensure informed credit decisions by identifying risks and opportunities.

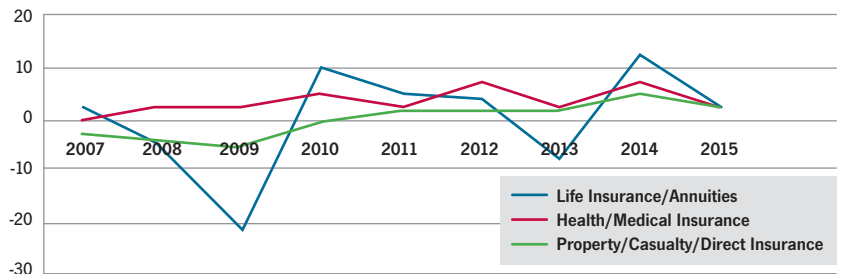
At the time of this writing, economic indicators suggest continuing growth and job creation even though multiple uncertainties are at play. If you are concerned about how the next recession or economic stagnation will impact your business, read on.

The Business-Cycle Checklist

At this stage of the business cycle, risk committees must be aware of how each element of the following business-cycle checklist impacts their institutions:

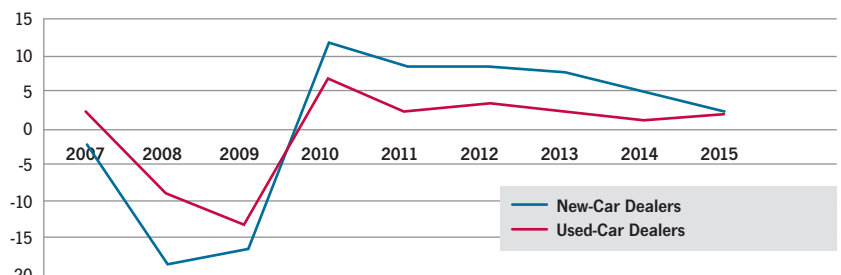
1. Discretionary versus nondiscretionary spending.
2. Commodity-type businesses.
3. Industry-specific volatility.
4. Private capital spending: correlations and concentration risks.
5. The domino effect of concentration risk pools.
6. Risks and opportunities of technological innovation.

FIGURE 1: THE DISCRETIONARY NATURE OF INSURANCE AS SEEN THROUGH THE CYCLE
Insurance Carrier Revenue Growth



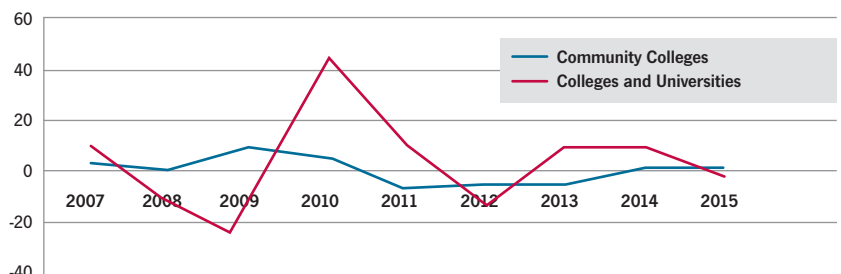
Source: IBISWorld

FIGURE 2: RECESSION HITS NEW-CAR DEALERS WITH A VENGEANCE
Car Dealer Sales (% Change)



Source: IBISWorld

FIGURE 3: DISCRETIONARY SPENDING IN EDUCATION
Revenue Growth by Institution (% Change)



Source: IBISWorld

7. Perils and opportunities of an industry's life cycle.
8. Substitute products and services that can compete.
9. The “Five C’s of Credit.”

This two-part series looks at previous cycles to uncover the risk attributes of these factors so we can identify which

industries and lines of business have been most vulnerable historically. Part 1, presented here, addresses the checklist through industry-specific volatility.

Factors to Think About

As noted by Andrew S. Grove, Intel executive and author, “Altogether too often, people substitute opinions for

facts and emotions for analysis.” Let’s take Grove’s observation to heart and begin with facts too often forgotten by banks’ risk practitioners and business developers.

1. Discretionary versus Nondiscretionary Spending

Industries dependent on discretionary spending are more vulnerable to downturns than those that attract nondiscretionary spending. They are also prone to higher default rates.

Consider the difference between necessary goods and services versus luxury goods and services. In the category of necessary goods, grocery stores and supermarkets provide food and essential household items whose sales hold up well during recessions.

This industry has an interesting dynamic, however. In tough times, people reduce restaurant visits in favor of home-cooked meals. But households also substitute by replacing high-value-added, ready-made meals (stuffed lobster) with basics (fish fillets). Revenues are not impacted much, but gross margins suffer as higher-margin foods are substituted with lower-margin choices.

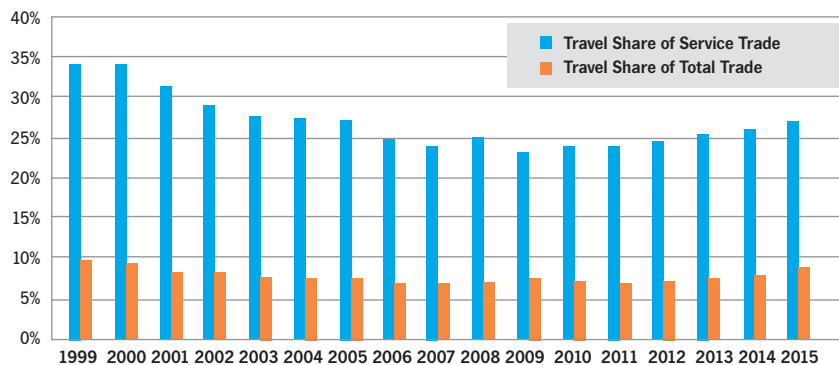
Conversely, jewelry stores sell luxury goods—a sector that suffered mightily during the financial crisis. While the rich typically keep spending during challenging times, the fact that the finance industry was hit particularly hard by the crisis trimmed the sails of luxury good purchases.

Here are some other examples of this dynamic.

Health care industries are typically considered almost recession-proof. But six-plus years after passage of the Affordable Care Act, insurers are either leaving or threatening to abandon the exchanges given higher costs and widespread losses. As of this writing, uncertainty regarding the fate of Obamacare continues. But this much is clear: “Necessary” services provided by hospitals, ambulances, and diagnostic laboratories fare relatively better in challenging times than “superior good” services like sports medicine, home health care, and day care.

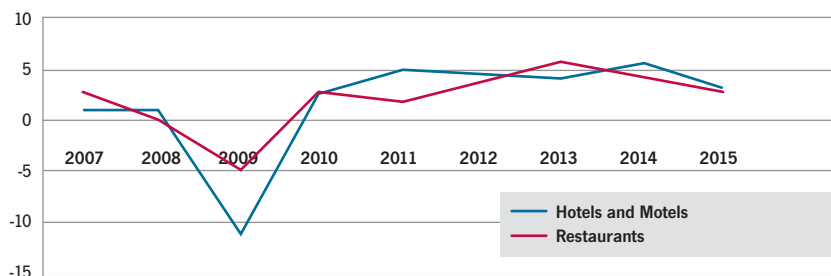


FIGURE 4: TRAVEL AND TOURISM A BOOM/BUST FOR THE AMERICAN ECONOMY... AND LENDERS
Travel Income as a Proportion of Trade Receipts



Source: Bureau of Economic Analysis

FIGURE 5: TRAVEL AND RESTAURANT SPENDING TANK IN RECESSIONS
Accommodation and Food Service Sales (% Change)



Note: Restaurants do not include fast food establishments and coffee/snack shops.

Source: IBISWorld

Speaking of the insurance industry, most of its products succumb to the pressures of a deteriorating economy because, in most cases, insurance is a discretionary spend. Sales made by life insurance and annuity companies dropped more than 20% during the recession, while property and casualty suffered a roughly 5% decline. We speculate that the effect on

property and casualty insurers was muted as individuals opted to increase deductibles rather than cancel policies.

Interestingly, life insurance and annuity companies rebounded nicely in the 2009-11 recovery, while property and casualty insurers stagnated. Meanwhile, revenue for the health and medical insurance industry, where spending is

IT'S TYPICAL FOR highly competitive industries to have low barriers to entry and, as price-takers, they don't have much control over the pricing of the intermediate goods they purchase and what they charge.

relatively less discretionary, was stable by comparison (Figure 1).

In the auto industry, sales of new cars and light trucks plummeted 17% a year and used-car dealership revenue dropped 11% between 2007 and 2009, according to IBISWorld estimates (Figure 2). Luxury car sales also collapsed—unlike during previous downturns, when this sub-segment held its own. Warning: There is no guarantee Congress will bail out the auto industry again. And a protectionist American trade stance could undermine NAFTA, posing another headwind to the industry.

In the education segment, community colleges enjoyed 5% annual growth during the recession, according to IBISWorld, while income at the more expensive four-year institutions plummeted 17%—another difference between “necessary”

and “luxury” services (Figure 3). As the economy slowly stabilized, spending on four-year institutions rebounded. Greater consumer confidence and a deleveraging of credit-card debt made financial room for greater exposure to student loans.¹

Travel and tourism is another segment where spending is highly discretionary. All types of travel wane when the economy lags. Here's a significant fact: Travel and tourism receipts account for about 9% of total goods and services trade and more than 27% of services export trade (Figure 4). And those numbers grossly underestimate travel and tourism's impact on the economy—and potentially the performance of a bank's portfolio.

There are dozens of correlated industries along the travel and tourism supply chain. Many, including airlines, taxis/li-

mos/Uber, car rentals, amusement parks, casinos, resorts, and tour operators, are dependent on locations near air-traffic hubs or ultimate destinations. Among the industries most impacted are those in the hospitality sector. Inflation-adjusted sales at hotels and motels dropped more than 10% during the 2007-09 period (Figure 5). Netting out fast food restaurants and coffee and snack shops, restaurant revenue declined more than 4% in real terms during that time.

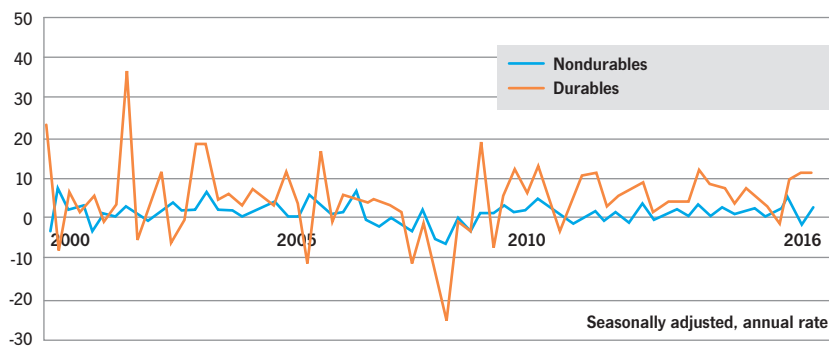
Bankers should be aware of hidden concentrations in this sphere, since the loans are often booked in different lines of business. For example, a bank might have an exposure to airlines that is classified as a commercial and industrial loan and another seemingly unrelated position in its leasing arm. It also wouldn't be unusual for the same bank to be exposed to hotels through construction and development lending or commercial real estate credits.

Multiple lines of business with potentially deadly correlations may go unrecognized. Many banks have faced the regulatory challenge of a “matter requiring attention” when examiners point out that such latent concentrations were ignored. This occurrence, of course, is not limited to travel, tourism, and related industries; it has become a priority of bank regulatory agencies. When analyzing this sector, think beyond the discretionary and nondiscretionary dynamic and also look for hidden correlated risks.

Understanding the difference between nondurable and durable goods is also key. Nondurable goods include food, fuel, cleaning supplies, paper products, and clothing. Durable goods include automobiles, furniture, consumer electronics, and appliances. Purchases of durable goods often involve households taking on more debt—manageable during the early stages of a credit cycle, but risky when recessionary clouds coalesce.

Durable goods were crushed during the Great Recession. When underwriting a deal for a borrower that sells consumer durables, make sure that risk premiums and shorter maturities are part of the equation, given the downside risks and

FIGURE 6: CONSUMER DURABLE INDUSTRIES WERE CRUSHED IN THE GREAT RECESSION
Real Household Spending: Durables vs. Nondurables (% Change)



Source: Bureau of Economic Analysis

volatility. The statistical variation for durables has been 3.3 times greater than that for nondurables during the past 15-plus years (Figure 6).

Now consider the significance of government discretionary spending. Skeptics would argue that, given gridlock, all government outlays these days are discretionary. Well, perhaps. The uncertain world of sequestration,² potential filibustering, and gridlock remains, despite the GOP's success in the 2016 elections. Going forward, budget battles will likely bring uncertainty for borrowers exposed to government contracts. The same applies for states with budget woes, like Illinois.

Meanwhile, defense spending has been dropping since mid-2011, following a dramatic rise after 9/11 (Figure 7).

The impacts from defense spending can be powerful. Some impacts are seen through industries (from the design and manufacture of military hardware to the repair and maintenance of aircraft) and others through regions (such as Virginia, California, Texas, Maryland, and Florida, the top-five defense spending states). Defense expenditures have not typically declined during downturns. However, given America's need to manage chronic deficits and a mounting debt, there's no telling how the 115th Congress will react. Moreover, the White House's defense plans remain murky. Banks should be aware of defense's volatility.

There is another twist on the discretionary goods discussion: so-called inferior goods, whose countercyclical demand rises as incomes fall. Public transportation, used items, and instant noodles are examples. Diversifying toward this category as the economy deteriorates may be prudent. Thinner margins are better than growing charge-offs.

2. Commodity-type Businesses

Commodity-type businesses are, by nature, highly competitive, have low barriers to entry, and live on low margins.

It's typical for highly competitive industries to have low barriers to entry and, as price-takers, they don't have much control over the pricing of the

FIGURE 7: DEFENSE SPENDING HAS RETREATED SINCE POST-9/11 BUILDUP
Defense Spending (\$ Billions)

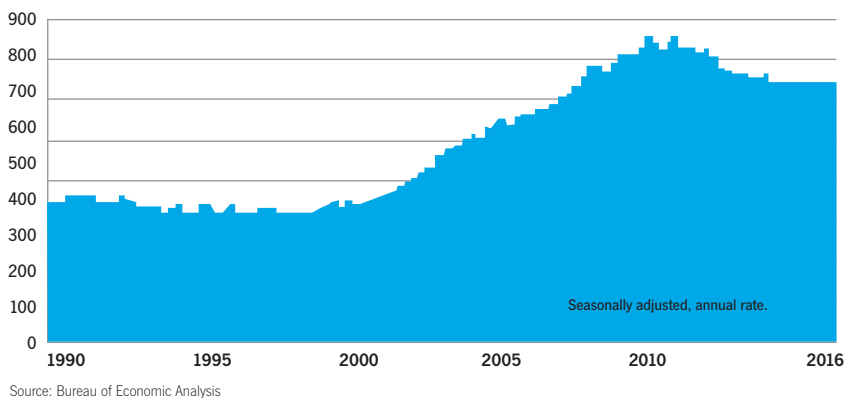
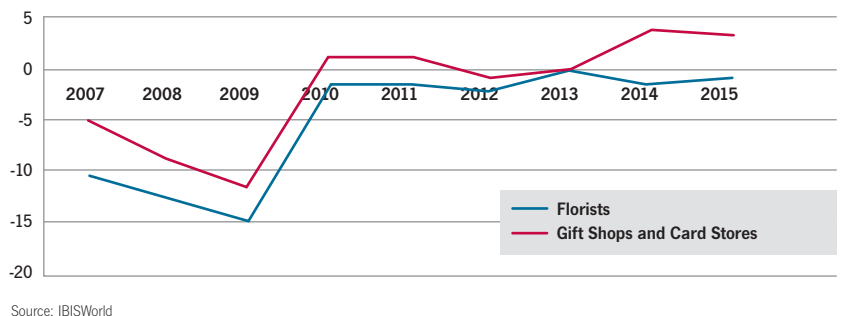


FIGURE 8: BEWARE OF MOM-AND-POP SHOPS
Selected Small Retail Sales (% Change)



intermediate goods they purchase and what they charge. Porter's Five Forces³ help define these parameters. Gas stations, florists, and mom-and-pop shops are examples. Risk mitigation for low-margin, competitive industries should include shortened maturities for loan approval, enabling a quick exit when the economy sours.

This type of borrower typically clusters around so-called anchor stores, many of which are now downsizing, bankrupt, or moving to a better location. (Think Circuit City or the once venerable Sears.)

Highly competitive, low-margin characteristics can be particularly worrisome for retailers and wholesalers that carry significant inventories requiring short-term debt financing. Actual obligor cover ratios such as earnings before interest and taxes (EBIT) / annual interest payments

should be scrutinized against the industry benchmarks found in RMA's *Statement Studies*[®]. It's worth looking at recent data and historical metrics from the boom/bust 2005-09 period.

Analyzing such data against banks' internal performance statistics (for example, delinquencies and charge-offs) is recommended in order to satisfy internal and external compliance requirements. Overexposure to firms in this grouping can be hazardous when the economy slows. In addition to understanding a borrower's profit margins, underwriters must be aware of borrowers that carry significant inventories requiring short-term debt financing in a world where interest rates can only drift upward and stress margins.

3. Industry-Specific Volatility Is a Killer

The volatility of an industry is a good

TABLE: VOLATILITY CAN BE A KEY FACTOR IN DETERMINING PDS AND NON-PERFORMING ASSETS

NAICS	Industry Sector	1948-2015	1948-1996	1997-2015
11	Agriculture, Forestry, Fishing & Hunting	Very High	Very High	Very High
21	Mining	Very High	Very High	Very High
22	Utilities	High	Medium	High
23	Construction	High	High	High
31-33	Manufacturing	Medium	High	Medium
42, 44-45	Wholesale & Retail Trade	Medium	Medium	Medium
48-49	Transportation & Warehousing	Medium	Medium	Medium
51	Information	Low	Low	Medium
52	Finance & Insurance	High	High	High
53	Real Estate & Rental and Leasing	Very Low	Very Low	Very Low
54	Professional, Scientific & Technical Services	Medium	Medium	Low
56	Administrative and Support & Waste Management and Remediation Services	Medium	Medium	Medium
61	Educational Services	Medium	Medium	Low
62	Health Care & Social Assistance	Low	Medium	Very Low
71	Arts, Entertainment & Recreation	Medium	Low	Medium
72	Accommodation & Food Services	Medium	Medium	Medium
81	Other Services	Very Low	Very Low	Medium

Source: Bureau of Economic Analysis

predictor of its probability of default. If there were a Holy Grail of metrics, this would be a leading candidate.

Frequent risk-grade migrations of an obligor or group of obligors (risk buckets) are red flags. Bankers should insist on strong debt service coverage and risk premiums when lending to volatile industries.

A long-term study published in *The RMA Journal*⁴ analyzed the variance of economic recovery years back to 1950. The table above updates this research to include the period from 1948 to 2015 using the Bureau of Economic Analysis (BEA) Data Quantity Index.⁵

Broadly defined industry segments provide a very valuable starting point to understand volatility, but this is clearly a case of the devil being in the details. The banker needs to drill down to the individual sub-segment and then drill down even further to understand a borrower's specific business model. Only then will you be in the position to select the strongest borrowers.

None of the following observations should be surprising:

- *Agriculture and mining* are always volatile. Commodity-based industries are

FREQUENT RISK-GRADE migrations of an obligor or group of obligors are red flags.

subject to the whims of global trade policies, commodity supplier petulance (think of copper and oil), and Mother Nature, the most powerful force of all.

- The *construction* industry is highly variable, exhibiting leads and lags. The housing crisis precipitated the Great Recession, while the collapse in commercial real estate lagged it.
- Many financial pundits see *utilities* as safe harbors. Not so. They are often held hostage by public opinion and

local politics during times of rising energy prices or by controversial issues like fracking.

- The *finance and insurance* sector has always been capricious. The Dodd-Frank Act, the likelihood of further small-bank consolidation, and the pending regulatory reform debate just add fuel to the fire.
- *Manufacturing* hasn't been particularly volatile, except for the period through 1996 when many American industries moved offshore to low-cost producers.
- *Educational and health care services* have been among the most stable sectors, but that could change, as noted above.

Here are several noteworthy exceptions to our volatility analysis (focusing on 1997-2015):

- In the broad *agriculture* sector, industries involved in forestry and fishing are considerably less volatile than farming.
- In *mining*, oil and gas extraction are the main culprits behind volatility. Non-energy-related activities are more stable.
- Although the overall variance in *manufacturing* should raise eyebrows, durable goods show substantially more

variability than nondurables.

- *Transportation and warehousing* is littered with outliers. Even though this sector historically doesn't rank high in unpredictability, air, water, and pipeline transport are incredibly volatile. Air travel is obviously related to both the movement of people and goods—and is hung up in the discretionary-versus-nondiscretionary world.
- The *information* sector is a potpourri of unrelated and highly interconnected industries. Segmentation of a bank's credit portfolio management data is clearly a requirement, as is understanding correlations between industries in this group. Challenges involve defining where an obligor falls vis-à-vis NAICS codes. This grouping includes publishing, television broadcasting, motion pictures, music recording, data processing, telecommunications, and, of course, the internet. One clear outlier between 1997-2015 was internet companies. One wonders about the fate of companies like Yahoo and even cable operators like Verizon.
- Volatility in *finance* is concentrated in securities, commodity contracts, and investment industries—although funds, trusts, and other financial-vehicle managers are not far behind. In this aggregated sector, traditional commercial banking and insurance companies have not been nearly as volatile, but they are clearly exposed to other vulnerabilities. Many are related to Dodd-Frank or health care reform.

Volatility is not always related to near-term risk. They can be mutually exclusive. Consider these normally low-volatility segments hit hard in the previous cycle:

- In the wide-ranging *professional, scientific, and technical services* sector, landscape designers, industrial designers, and human resource consultants don't perform well in trying times.
- The *accommodation and food services* group follows economic cycles closely



and isn't particularly variable. But in hard times, many sub-groups succumb, especially hotels and motels, casino hotels, bed and breakfasts, and food service contractors. Moreover, restaurant exposure can be quite risky. Although the likelihood of restaurant failure follows the cycle closely, local—not national—economic conditions often dominate. Meanwhile, low-price franchise restaurants fare comparatively well in downturns, whereas fine dining is vulnerable.

- The wide-ranging NAICS *other services* category doesn't trend far off the beaten path of GDP. There is little volatility risk. Yet, other factors push industries like laundromats and dry cleaners—and, more obviously, dating services, maids, nannies, and gardener services—into high-risk profiles at a whiff of recession. [®]

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Part 2 of this article, coming in *The RMA Journal's* February 2018 issue, will elaborate on the rest of the checklist and explain how to make it part of a "decision tree" for lending purposes. This article has been adapted from a white paper by Buczynski and Brown, soon to be available on RMA's website.

Notes

1. Nearly \$1.3 trillion in student loan debt is owed by Americans, many of them parents and grandparents of students. According to the Consumer Financial Protection Bureau, more than 2.8 million Americans over the age of 60 have outstanding student loan debt, a marked rise from 700,000 in 2005.
2. See "Sequestration Update Report," Congressional Budget Office, August 2016.
3. See Anita McGahan and Michael Porter, "How Much Does Industry Matter, Really?" *Strategic Management Journal* 18, 1997.
4. See Rick Buczynski, "The Shape of Things to Come: Private Investment Rebound to Uncover First-Rate Lending Opportunities," *RMA Journal*, July-August 2012.
5. According to the BEA, this data contains summary-level value added by the industry, as well as corresponding quantity and price indexes (2009 = 100) for the years 1947 to 2015. It also contains value-added components data for the years 1987 to 2014. The data for 1997 to 2015 is from the GDP by industry accounts released on April 21, 2016, as part of the advance annual industry economic accounts (IEAs). The data for 1947 to 1996 is from the GDP by industries time-series released on February 19, 2016, and has been updated to be consistent with IEA's statistics.