CREDIT RISK

into the **Next Recession?** (Part 4)

Be Alert as the Credit Cycle Grows Old

THE FIRST THREE parts of this series, published previously in *The RMA Journal*, investigated the key factors often ignored or undervalued by commercial banks—fundamentals that matter regardless of where we sit in the credit cycle. The next two installments build on this effort, contrast the economic, financial, and political environment prior to the Great Recession with where we stand now. Part four, presented here, focuses on comfort zones and international trade.

"Adaptation seems to be, to a substantial extent, a process of reallocating your attention."

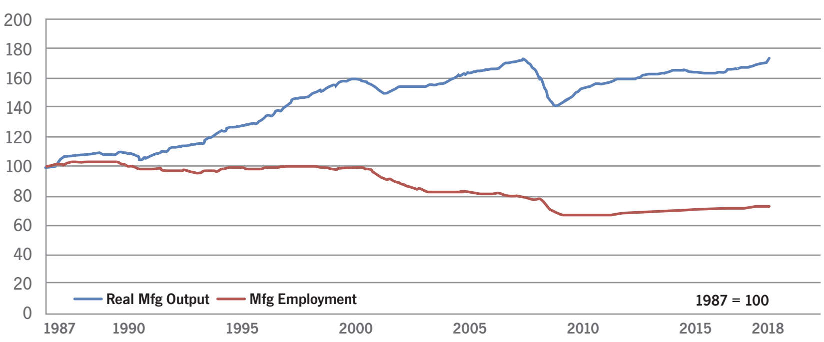
– Daniel Kahneman, 2002 Nobel Laureate in Economics

BY RICK BUCZYNSKI AND DEV STRISCHEK

EVERY CREDIT CYCLE has its own unique attributes that need to be assessed when making decisions about risk mitigation and lending policy. Some of the most notable differences involve the growth and composition of American debt, economic policies and politics, and trade relations. At the same time, it's important to highlight some strengths of the U.S. economy, with the aim of identifying lending segments that will offer resiliency as the credit cycle grows fatigued.

As such, the objectives of this article and the forthcoming part five of this series (to be published next month) are simple: 1) to explain how the growth in government, household, and corporate debt, as well as trade tensions, affects portfolio risk; and 2) to identify the emerging danger areas and relative comfort zones for commercial lending going forward.

FIGURE 1: U.S. MANUFACTURING HITS AN ALL-TIME HIGH WHILE JOBS LAG



Sources: Bureau of Economic Analysis, IBISWorld

No Safe Havens for Lenders, but There Are Comfort Zones

A bank's lending policies must be shaped by a clear understanding of the operating environment faced by its borrowers. However, the search for opportunities and the quantifying of associated risks are often marred by misconceptions involving American trade and the overall structure of the U.S. economy. Often-held myths are delusionary distractions that can leave bankers flying blind.

Myth #1: America's importance as an exporter and global manufacturer has withered.

That's not exactly true. Let's start with manufacturing. Consider the notion that American manufacturing is dead, or nearly so, with production having moved overseas. This situation has supposedly contributed to ongoing trade imbalances.

Check out Figures 1 and 2. While manufacturing jobs have declined substantially in the past three decades, manufacturing output has reached an all-time high. Why? Automation. And there are too many credible studies in support of that fact to reference here.

Sadly, millions of manufacturing jobs were lost to overseas competitors like China—and more recently to other developing countries as China's

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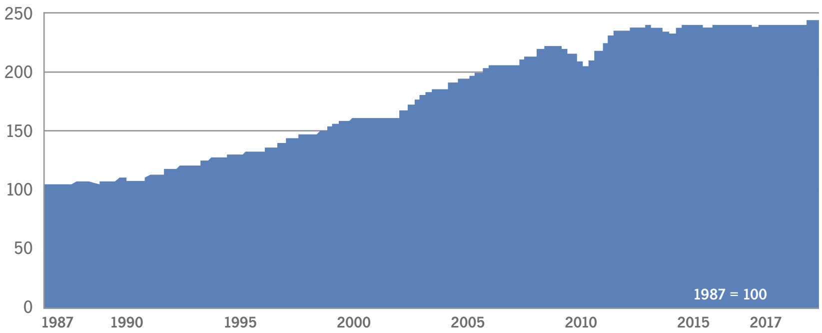
FIGURE 2: PER CAPITA DATA SUPPORTS HEALTHY MANUFACTURING



Sources: Bureau of Economic Analysis, IBISWorld

costs of production have risen. Job migrations have drifted from Japan, to Korea and Taiwan, to China, and to Southeast Asia in the postwar period. But these were mostly low-wage or last-stage assembly jobs. And the cycle of job migration is becoming shorter. All these factors contribute to a gathering tsunami of ongoing trade disputes.

In a March 2018 report from the Federal Reserve Bank of St. Louis, Kevin Kliesen and John Tatom argue that American manufacturing is "fundamentally strong" while acknowledging the decline in jobs:[1]

> Manufacturing has historically experienced rapidly rising productivity growth and declining employment. However, this has not resulted in a smaller share of manufacturing output relative to GDP. In fact, manufacturing output has been a roughly constant share of GDP over time…. But in contrast with historical trends… manufacturing has not enjoyed strong output growth over the past few years. So, if there's any credence to the view that U.S. manufacturing has diminished, it mostly stems from the nation's slower economic growth process and very weak economic recovery. If aggregate productivity rebounds, it will be reflected in a re-energized manufacturing sector.

SADLY, MILLIONS OF MANUFACTURING JOBS WERE LOST TO OVERSEAS COMPETITORS LIKE CHINA—AND MORE RECENTLY TO OTHER DEVELOPING COUNTRIES AS CHINA'S COSTS OF PRODUCTION HAVE RISEN.

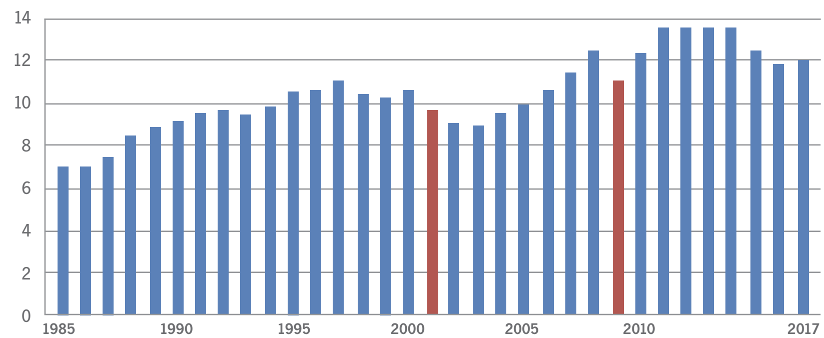
Myth #2: Exports are no longer a factor, and America has lost the game.

Let's look at data that contradicts common misconceptions about exports.

Exports are of increasing importance to U.S. economic growth. Figure 3 suggests that even after recessions—depicted by the red bars—American exports have been a driver of growth. The retreat in export shares as a percentage of GDP—highlighted in red—is an artifact of a strong dollar, though the real culprit has been eroding economic performance by some of America's major trading partners. Nonetheless, total export trade, which includes both goods and services, is still sizable compared with 30 years ago.

So where are the sweet spots that help identify solid lending opportunities? A 2015 report by Brookings identifies 50 "advanced super-sector industries," including 35 in manufacturing, three in energy, and 12 in the service sector.[2] Shown in Table 1, these are manufacturing industries like aerospace, autos, medical devices, and pharmaceuticals; energy-oriented industries such as oil and gas extraction and electric power generation; and high-tech service activities such as computer system design, R&D services, software, and telecommunications.

FIGURE 3: THE GROWING IMPORTANCE OF EXPORTS (REAL: % OF GDP)



Source: Bureau of Economic Analysis

Super sectors employ a high proportion of STEM (science, technology, engineering, and math) workers, generate about 80% of new patents, and spend almost 90% of America's total R&D. According to the study, since super sectors are highly competitive, they generate an outsized 60% of U.S. exports despite representing less than 10% of the nation's employment. As such, we believe that the attributes of this category of industries render them less risky during hard times.

Let's see how this data stacks up to export data. In Figure 4, industrial suppliers (petrochemicals, oil, and manufactured intermediate products) and capital goods (machinery and equipment) comprise the lion's share of U.S. goods exports. Both have grown at a reasonably strong clip since 2007, despite the Great Recession.

Trade in services, which has consistently enjoyed surpluses for decades, has registered broad-based success, as shown in Figure 5. Relatively high value-added areas—sub-sectors like logistics, intellectual property, and financial and business services—are dominant.

TABLE 1: AMERICA'S SUPER SECTORS: YES, WE HAVE THEM!

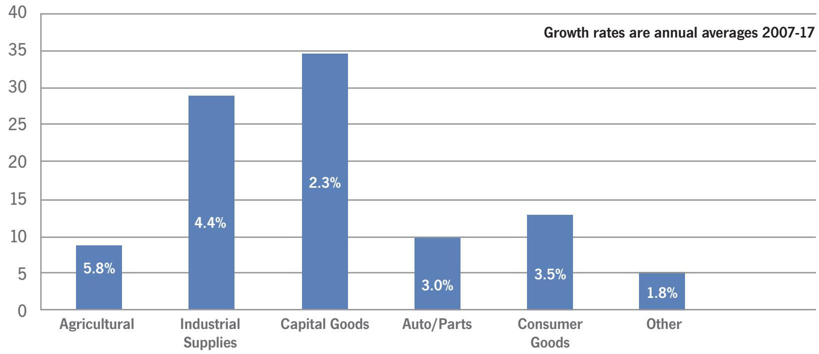
MANUFACTURING	4-DIGIT NAICS	MANUFACTURING CONTINUED	4-DIGIT NAICS
Basic Chemicals	3251	Electric Lighting Equipment	3351
Resins/Fibers/Filaments	3252	Household Appliances	3352
Pesticides/Fertilizers	3253	Electrical Equipment	3353
Pharmaceuticals/Medicine	3254	Other Electrical Equipment and Components	3359
Other Chemical Products	3259	Motor Vehicles	3361
Clay Products	3271	Motor Vehicle Bodies & Trailers	3362
Other Nonmetallic Mineral Products	3279	Motor Vehicle Parts	3363
Iron, Steel & Ferroalloys	3311	Aerospace Products & Parts	3364
Aluminum Production/Processing	3313	Railroad Rolling Stock	3365
Foundries	3315	Ship & Boat Building	3366
Agr., Construction & Mining Machinery	3331	Other Transportation Equipment	3369
Industrial Machinery	3332	Medical Equipment/ Supplies	3391
Commercial/Service Industry Machinery	3333	Other Miscellaneous	3399
Engines, Turbines, Power Trans. Equipment	3336	**ENERGY**	**4-DIGIT NAICS**
Other General Purpose Machinery	3339	Oil/Gas Extraction	2111
Computers and Peripheral Equipment	3341	Metal Ore Mining	2122
Communications Equipment	3342	Electric Power Generation, Trans. & Distrib	2211
Audio/Video Equipment	3343	**SERVICES**	
Semiconductors/Electronic Components	3344	Software Publishers	5112
Navigation, Measurement, Control Instruments	3345	Cable/Other Subscription Programming	5152
Magnetic and Optical Media	3346	Wireless Telecommunications Carriers	5172
Electric Lighting Equipment	3351	Other Telecommunications	5179
Household Appliances	3352	Satellite Telecommunications	5174
Electrical Equipment	3353	Data Processing & Hosting	5182
Other Electrical Equipment and Components	3359	Other Information	5191
Motor Vehicles	3361	Architecture & Engineering	5413
Motor Vehicle Bodies & Trailers	3362	Computer Systems Design	5415
Motor Vehicle Parts	3363	Mgmt., Scientific & Technical Consulting	5416
Aerospace Products & Parts	3364	Scientific Research & Development	5417
Railroad Rolling Stock	3365	Medical & Diagnostic Laboratories	6215
Ship & Boat Building	3366	Mgmt., Scientific & Technical Consulting	5416
Other Transportation Equipment	3369	Scientific Research & Development	5417
Medical Equipment/Supplies	3391	Medical & Diagnostic Laboratories	6215
Other Miscellaneous	3399		

Source: Brookings Advanced Industries Series

SINCE SUPER SECTORS ARE HIGHLY COMPETITIVE, THEY GENERATE AN OUTSIZED 60% OF U.S. EXPORTS DESPITE REPRESENTING LESS THAN 10% OF THE NATION'S EMPLOYMENT.

FIGURE 4: BRIGHT SPOTS IN EXPORTS OF U.S. GOODS

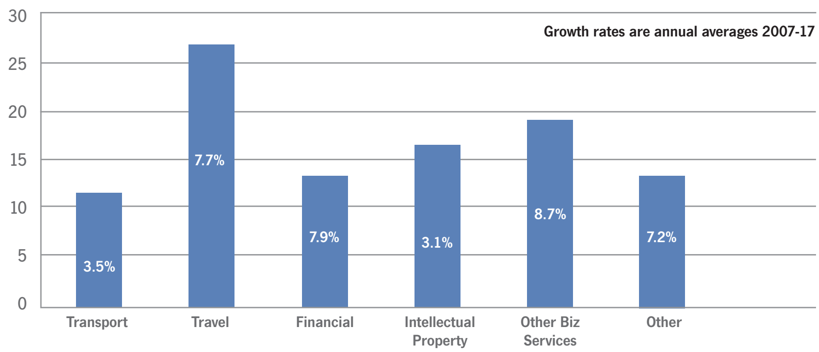
LEADING AMERICAN GOODS EXPORTS (% TOTAL)



Source: U.S. Census Bureau

FIGURE 5: U.S. SERVICE EXPORTS ARE BROAD-BASED WINNERS

LEADING AMERICAN SERVICE EXPORTS (% TOTAL)



Source: U.S. Census Bureau

TABLE 2: AMERICA'S LEADING EXPORT MARKETS

COUNTRY	EXPORTS	2017 GROWTH	% TOTAL EXPORTS
Canada	282,265	5.8%	18.3%
Mexico	243,265	5.8%	15.7%
China/Hong Kong	169,833	12.9%	11.0%
Japan	67,605	6.9%	4.4%
UK	56,258	2.0%	3.6%
Germany	53,897	9.0%	3.5%
South Korea	48,326	14.2%	3.1%
Netherlands	41,510	4.8%	2.7%
Brazil	37,222	23.8%	2.4%
France	33,596	7.8%	2.2%
Belgium	29,924	-0.1%	1.9%
Singapore	29,806	11.1%	1.9%
Taiwan	25,730	-1.2%	1.7%
India	25,689	18.7%	1.7%
Australia	24,527	10.7%	1.6%

Source: U.S. Census Bureau

Key Takeaway #1

As trade tensions intensify, understanding what a bank's trade-oriented borrowers sell abroad demands the attention of banks' policy makers and underwriters.

Bankers also need to know where their exporting obligors are selling goods. Note the major destinations for U.S. exports in Table 2. It is not surprising that Canada and Mexico rank number one and two, followed by China. Did you know that exports to China are roughly one-third of U.S. sales to the entire European Community and represent a like proportion to neighboring Canada and Mexico, despite the chronic trade surpluses the Chinese enjoy?

Key Takeaway #2

Understanding where a bank's export-reliant borrowers sell products and services requires scrutiny both on the policy and risk management side of the banking hierarchy and under the umbrella of loan origination.

Although your bank may assess exposures to international trade, we offer some additional guidelines. First, consider a few examples where exports generate a significant portion of an industry's revenue, as presented in Table 3. Here, the higher the percentage, the greater the exposure to trade-related risks.

Key Takeaway #3

Knowing your borrowers' relative exposures to domestic versus overseas revenue should be a prominent driver of risk-based decisions like pricing and limits.

But there's more to consider: supply-chain risks and potential lending opportunities. This involves not just where products are produced, but where they are assembled and shipped. Surely a morass to untangle, but worth the effort. Table 4 identifies America's import dependence.

Careful readers will notice several industries in Table 4 that have signifi-

TABLE 3: CONCENTRATION OF SELECTED U.S. EXPORT MARKETS BY SECTOR			
AGRICULTURE		AUTO/PARTS	
Soybean	51.8%	Tires	24.0%
Corn	18.6%	Hoses/Belts	50.3%
Wheat	72.2%	Automobile Engine/Parts Mfg	28.0%
Orange/Citrus	27.7%	Automobile Brakes Mfg	24.0%
Fishing	54.2%	Truck/Bus Mfg	66.1%
INDUSTRIAL SUPPLIES		CAPITAL GOODS	
Wood Pulp	97.4%	Tractors/Agri Machinery	24.6%
Cotton	88.3%	Construction Machinery	40.8%
Dye & Pigment Mfg	38.5%	Mining, Oil/Gas Machinery	39.2%
Inorganic Chemicals	40.5%	Plastics/Rubber Machinery	39.9%
Organic Chemicals	29.9%	Semiconductor Machinery	31.2%
Plastic & Resin Mfg	39.0%	Engine/Turbine Mfg	46.5%
Synthetic Fiber Mfg	28.2%	Pump/Compressor Mfg	31.0%
Ceramics Mfg	52.7%	Telecom Networking Equip Mfg	34.4%
Fertilizer Mfg	20.1%	Communication Equip Mfg	69.0%
Pesticide Mfg	22.6%	Medical Device Mfg	30.1%
CONSUMER GOODS		Aircraft, Engine/Parts Mfg	56.0%
Leather/Luggage Mfg	61.4%		
Men's Apparel	56.9%		
Women's Apparel	26.1%		
Pharmaceuticals	24.2%		

Source: IBISWorld

TABLE 4: CONCENTRATION OF U.S. IMPORTING SECTORS (SUPPLY-CHAIN RISKS)			
AGRICULTURE		AUTO/PARTS	
Oil Seeds	22.2%	Tires	50.7%
Vegetables	32.7%	Hoses/Belts	53.9%
Orange/Citrus	29.9%	Automobile Engine/Parts Mfg	39.1%
Fruit & Nuts	52.9%	Automobile Electronics Mfg	47.4%
Fishing	76.9%	Auto Steering/Suspension Mfg	36.4%
INDUSTRIAL SUPPLIES		Automobile Brakes Mfg	35.2%
Wood Products	33.3%	Automobile Transmission Mfg	44.9%
Wood Pulp Mills	95.4%	CAPITAL GOODS	
Paper Products	23.2%	Tractors/Agri Machinery	25.8%
Inorganic Chemicals	32.3%	Construction Machinery	48.6%
Organic Chemicals	28.6%	Woodworking Machinery	64.6%
Fertilizer Mfg	33.2%	Plastics/Rubber Machinery	61.6%
Ink Mfg	70.5%	Copier/Optical Machinery	36.5%
Mineral Products	24.2%	Heating/Air Conditioning Equip	28.5%
Iron/Steel	28.7%	Metalworking Machinery	35.3%
Aluminum	32.8%	Computer Mfg	93.8%
CONSUMER GOODS		Computer Peripheral Mfg	91.6%
Candy/Chocolate	20.4%		
Coffee/Tea	33.1%		
Wineries	26.4%		
Distilleries	35.0%		
Men's Apparel	97.6%		
Women's Apparel	93.3%		
Costumes/Team Uniforms	69.9%		
Shoe/Footwear	94.5%		
Leather/Luggage Mfg	94.2%		

Source: IBISWorld

cant exposures in exporting and importing—the "two-way trade." There are several reasons why countries import and export similar goods, including differences in transportation costs, market niches, and seasonal factors. As such, it's a good idea to look into the details, as will be outlined in the takeaway below.

Key Takeaway #4

Defining, coding, and mapping your portfolio's exposures by combining granular, sub-sector exposures with where specific exports and imports are bought and sold should be a priority. This isn't rocket science and should be in play by senior managers and all client-facing staff.

While all export-oriented bank clients may be increasingly vulnerable to a recession in the future, Table 5 lists selected industries that are most sensitive to a drag in exports at a six-digit level. There are a multitude of others, mainly in agriculture and manufacturing, and they are perpetually in the crosshairs of trade disputes.

Trade-Exposed Bank Borrowers Are at Risk

Some readers might recall the conten-

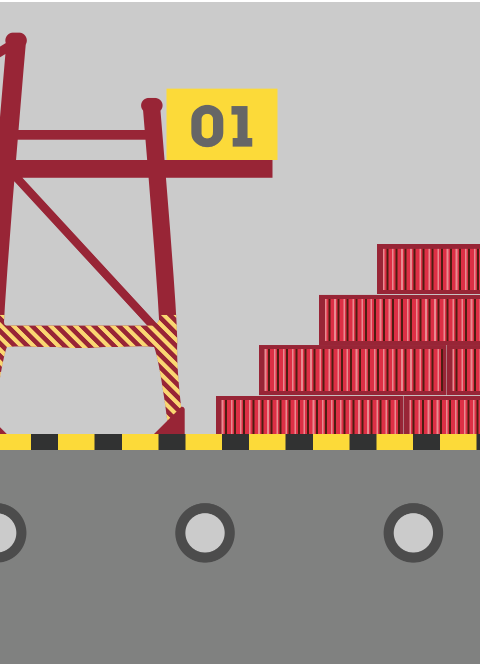


TABLE 5: SELECTED INDUSTRIES MOST SENSITIVE TO A DOWNTURN IN EXPORTS

NAICS CODE 2017 6-DIGIT	IBIS CODES	INDUSTRY DESCRIPTION
482111	48211	Rail Transportation
483111	48311	Ocean & Coastal Transportation
484121	48412	Long-Distance Freight Trucking
484230	48423	Tank & Refrigeration Trucking
488210	48821	Rail Maintenance Services
488310	48831	Port & Harbor Operations
488320	48832	Stevedoring & Marine Cargo Handling
488330	48833	Tugboat & Shipping Navigational Services
488390	48839	Dry Docks & Cargo Inspection Services
488510	48851	Freight Forwarding Brokerages & Agencies
488991	48899	Freight Packing & Logistics Services
493110	49311	Public Storage & Warehousing
493120	49312	Refrigerated Storage
541930	54193	Translation Services
561421	56142	Telemarketing & Call Centers

Source: IBISWorld

tious and frequently unproductive negotiations during the Uruguay Round of the General Agreement on Tariffs and Trade from 1986 to 1994, a precursor to the World Trade Organization (WTO). Talks to liberalize trade in goods (particularly in agriculture and textiles) and trade in services (such as intellectual property and financial services) largely proved futile. Sound familiar?

Populist trends in recent years aren't the exclusive domain of American politics. Think, for example, of Europe and Brexit. In a *World Economy* report published in 2011, we found a relevant quote: "…evidence from surveys shows that public pressure for more economic protection has been mounting since the mid-2000s and has possibly intensified since the start of the financial crisis."[3]

Insular popular sentiments and nationalistic moods across the globe foment protectionism, aggravating the downside risks of an economic downturn—and also the risks to American banks exposed to a borrower's dependence on exports, trade finance, or any global enterprise.

Moreover, many of a bank's clients buy intermediate goods from overseas, operating along a complex global supply chain. So don't be fixated on headline news stories: Trade tensions with China and issues like the future of the WTO and the unratified TransPacific Partnership are only part of the saga. Plus, by the time you read this, these issues may have come full circle. Such is the nature of real-time policies and politics these days.

Adding to this is the fact that many of America's leading partners are economically weaker now than before the Great Recession. China and the European Community are cases in point.

Key Takeaway #5

Trade frictions historically bubble up when global economic recessions and "end of cycle" issues reemerge. Be alert, as trade-dependent borrowers are more vulnerable to the next downturn than during prior cycles. Think in terms of risk pricing. Ⓡ

Notes

1. See "Here's Why U.S. Manufacturing Is Fundamentally Strong," by Kevin L. Kliesen and John A. Tatom, *Economic Synopses*, Federal Reserve Bank of St. Louis, March 2, 2018. Available at https://research.stlouisfed.org/publications/economic-synopses/2018/03/02/heres-why-u-s-manufacturing-is-fundamentally-strong/.
2. See "America's Advanced Industries: What They Are, Where They Are, and Why They Matter," by Mark Muro, Jonathan Rothwell, Scott Andres, Kenan Fikri, and Siddharth Kulkarni, Brookings Institution, February 3, 2015. Available at https://www.brookings.edu/research/americas-advanced-industries-what-they-are-where-they-are-and-why-they-matter/#/M1042.
3. See "Protectionist Responses to the Crisis: Global Trends and Implications," Matthieu Bussiére, Emila Pérez-Barreiro, Roland Straub, and Daria Taglioni, *World Economy* 34(5), May 2011. Available at https://www.researchgate.net/publication/227672387_Protectionist_Responses_to_the_Crisis_Global_Trends_and_Implications.

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