

FOOD AND NUTRITIONAL

Supply Chain Outlook 2026

MAY - ISSUE 48



- Economic Outlook
- Vitamins & Minerals
- Premixes
- Granulations
- Microencapsulations

ECONOMY

- U.S. CONSUMER SPENDING REMAINS UNEVEN
- CHINA FACES SLOWER DEMAND AND OVERSUPPLY

TABLE OF CONTENTS

Economic Update	2
Current Events	4
Vitamins	5
Minerals	7
Premixes	9
Microencapsulation	10
Granulations	11
Message from TWG Health + Nutrition	12

Pricing Trends Key

- Price Increase 
- Price Increase Due to Current Events 
- Price Stable 
- Price Decrease 

United States

The United States economy entered 2026 with moderate growth momentum, as first quarter GDP rebounded to 2.0% following weaker performance at the end of 2025. Full year growth is expected to remain near 2.2%, supported by consumer spending, investment, and government activity. Trade policy remains a central variable, with tariff rates rising significantly over the past year and more than half of those costs passing through to prices. A February 2026 Supreme Court decision challenged certain tariffs, adding uncertainty and continuing to complicate sourcing strategies.

Inflation is gradually easing toward the Federal Reserve's 2% target and is projected around 2.4% for the year. Tariff-related price pressures are expected to fade in the second half of 2026, though elevated input, freight, and living costs continue to weigh on both margins and consumers. While rate cuts are expected later in the year, borrowing conditions remain relatively tight, influencing inventory strategies and capital investment decisions.

Consumer conditions remain uneven. **High costs of living, including housing and essential goods, continue to pressure lower- and middle-income households**, while higher-income segments remain more resilient. This divergence is contributing to uneven demand patterns across discretionary and essential goods, creating a more complex demand environment for supply chain planning.

Investment growth is increasingly concentrated on AI and related infrastructure, including data centers and advanced equipment. This is driving localized demand for power, construction materials, and specialized logistics capacity, particularly in the Sun Belt and Mid-Atlantic regions, where bottlenecks may emerge as activity accelerates.

The labor market has softened, with declining manufacturing employment

and slower overall job growth, though unemployment has remained relatively stable. Labor availability continues to be constrained in skilled trades and logistics roles, limiting throughput in key regions. Overall, the US supply chain environment remains resilient but uneven, shaped by policy uncertainty, cost pressures, and concentrated areas of growth.

China

China's economy continues to show signs of slowing through 2026, with GDP growth around 5.0% in Q1 and full-year projections between 4.5%–5%, slightly below 2025 levels. Growth remains supported by exports, up roughly 8–9% year-over-year, while consumer demand continues to lag, with retail sales increasing only ~2.8% YoY. Business investment also remains weak, with fixed asset investment rising just ~1.8% YoY, reflecting continued caution among companies.

Industrial production has strengthened, increasing approximately 6.3% YoY, supported by manufacturing activity and PMI readings slightly above expansion levels. However, production growth continues to outpace both domestic and global demand, contributing to persistent oversupply and aggressive pricing strategies that are straining trade relationships. China's trade surplus also remains elevated.

The property market continues to weigh heavily on the economy, with housing prices at multi-decade lows and ongoing contraction pressuring household confidence and spending. Lending activity is being encouraged to stimulate growth, though credit demand remains subdued. Inflation remains low at approximately 1.0% YoY, reflecting weak domestic demand, while unemployment is holding near 5.3%.

China continues maintaining a "proactive" fiscal stance alongside relatively loose monetary policy, though large-scale stimulus measures remain limited. At the same time, rising energy and input costs are beginning to pressure manufacturing margins, while ongoing population decline and weak birth rates

ECONOMY cont.

- EUROZONE RECOVERY STRENGTHENS DESPITE ENERGY PRESSURES
- JAPAN SHIFTS TOWARD ECONOMIC STABILIZATION

continue reinforcing long-term concerns around labor supply and economic sustainability.

Eurozone

Economic conditions across the Eurozone have stabilized in 2026, with GDP growth projected between 1.1% and 1.4%. This represents a modest recovery from recent stagnation, supported mainly by domestic demand as global trade uncertainty continues to pressure exports. Germany's fiscal expansion is expected to gradually support industrial activity, particularly in infrastructure, defense, and manufacturing sectors, though the strongest impact will likely develop later in the year as procurement activity increases.

Energy prices remain a major source of pressure, with rising oil and gas costs pushing inflation expectations toward 2.5%. The region's dependence on imported energy continues exposing supply chains to cost volatility, especially across transportation, manufacturing inputs, and temperature-controlled logistics. These pressures are expected to persist, requiring continued management of energy-sensitive routes and supplier agreements.

Monetary policy is expected to ease modestly, though the pace and timing of rate cuts remain uncertain. Financing conditions may gradually improve, influencing inventory strategies and capital investment decisions. Economic performance across member states remains uneven, with Spain and Greece benefiting from stronger domestic demand and EU funding support, while parts of northern Europe continue facing elevated energy costs, labor shortages, and weaker consumption.

Structural labor constraints continue tightening the operating environment as the working-age population declines, limiting workforce availability across manufacturing and logistics sectors. While AI adoption is increasing, productivity gains remain uneven and concentrated in more developed northern markets, leaving broader regional capacity constraints largely unchanged.

Overall, the Eurozone remains a stable but low-growth environment, with demand conditions steady but not accelerating. Key risks continue

to center on energy price volatility, monetary policy direction, and the timing of fiscal spending, all of which will directly influence supply chain costs, regional capacity, and demand patterns.

Japan

Japan's economy is showing early signs of stabilization entering 2026, shifting from the 2.3% contraction in 2025 to modest projected growth. Earlier declines in business investment and government spending weighed on performance, but indicators suggest gradual improvement alongside steadier consumer spending.

Inflation remains near the Bank of Japan's 2% target, easing slightly but still elevated enough to support continued monetary tightening. The BOJ is moving away from its long-standing accommodative stance, with additional policy adjustments expected through mid-2026. Wage growth is strengthening through corporate wage increases, helping support consumer spending and household stability, while energy-related cost pressures have moderated compared to 2025.

Employment conditions remain strong, with a tightening labor market, rising participation rates, and low unemployment supporting stability. However, external pressures persist, particularly from China's high production levels, which continue straining Japan's manufacturing and automotive sectors. A weaker yen is also impacting import costs and broader price dynamics.

The government's 17.7 trillion yen stimulus program (approximately 2.5% of GDP) remains in place to support households, businesses, and wage recovery, though policymakers are increasingly shifting toward private sector-driven growth while balancing fiscal support with tighter monetary policy.

Market movement YTD as of 5/4/2026:

- DJIA: 1.83%
- S&P 500: 5.19%
- NASDAQ: 7.86%

Policy Uncertainty Continues Impacting Supply Chains

CURRENT EVENTS

- OIL PRICES SURGE TO \$110–\$115 PER BARREL
- NUTRIENT MARKETS FACE RISING COST PRESSURES

Oil Market & Strait of Hormuz Tensions

- **Oil prices surged to approximately \$110–\$115 per barrel**, reaching multi-year highs amid escalating tensions in the Strait of Hormuz. Reports of a potential Iranian strike on a U.S. warship—though disputed—have sharply increased geopolitical risk in the region. The Strait of Hormuz, which handles roughly 20% of the world's oil supply, is facing disruptions as attacks on vessels and energy infrastructure intensify. In response, the U.S. is working to secure maritime routes and stabilize shipping activity. Rising energy prices are already contributing to renewed inflationary pressures and increased market volatility.

US – Iran Tensions Rise

- **Tensions between the United States and Iran continue escalating amid rising regional instability and energy market disruption.** The U.S., alongside allies including Israel and Saudi Arabia, has increased pressure on Iran through expanded policy demands and threats of potential military action. The proposed framework calls for a permanent halt to Iran's uranium enrichment program, limits on ballistic missile capabilities, and an end to support for regional proxy groups including Hamas, Hezbollah, and the Houthis.
- Iran has responded with warnings of retaliation against U.S. interests and allied nations in the region. As negotiations stall, rhetoric on both sides continues to intensify, though Iranian officials have recently signaled openness to restarting diplomatic talks to avoid further escalation toward direct conflict.
- China has formally invoked its anti-sanctions law in response to recent U.S. actions blacklisting Chinese refiners tied to Iranian oil purchases. Chinese firms are now being directed to disregard U.S. sanctions, creating a more complex compliance environment for multinational businesses. The move highlights China's effort to maintain access to Iranian energy supplies while resisting U.S. regulatory pressure and is expected to deepen trade friction and accelerate economic decoupling trends between the two countries, particularly across energy and manufacturing sectors.

Russia–Ukraine War Update

- **Russia continues to apply sustained military pressure across multiple fronts in Ukraine**, maintaining momentum in key contested regions. The prolonged conflict continues to disrupt global commodity markets, particularly in energy, agriculture, and fertilizer supply chains. Sanctions on Russia remain in place, driving the country to strengthen trade relationships with China and other non-Western partners. The ongoing war is contributing to broader geopolitical instability, elevated defense spending, and persistent inflationary pressures globally, with no clear resolution in the near term.

Vitamins:

- **Vitamin markets are beginning to show broader upward pressure heading into the second half of the year**, particularly across Vitamins A, E, C, B3, and B5, as raw material costs, energy pricing, and supplier production adjustments continue impacting availability and pricing. Several suppliers are also preparing for planned summer shutdowns, contributing to tightening supply conditions and expected near-term increases across select categories.
- **Vitamin D, B6, and B12 remain relatively stable amid softer demand and adequate supply**, while Vitamins B1, B7, and B9 are showing early signs of upward movement tied to raw material concerns and limited availability. Demand growth in personal care, food, beverage, and supplement sectors continues supporting elevated activity across key vitamin categories, with manufacturers closely monitoring supply continuity and pricing volatility.

**Supply Chain
Pressures
Influence Global
Nutrient Pricing**

FAT SOLUBLE

VITAMINS

Trending Vitamins:

- VITAMIN K
- VITAMIN D
- VITAMIN B
- VITAMIN C

Vitamin A: Producers have pulled back, creating tightness in supply and pushing pricing upwards.



Vitamin D: Pricing remains stable amid weak demand.




Vitamin E: Pricing for both synthetic and natural versions are on the rise. Increases in raw material costs and energy prices are major contributing factors.




Vitamin K: Current pricing for vitamin K1 is stable.



Pricing Trends Key


Price Increase 

Price Increase Due to Current Events 

Price Stable 

Price Decrease 

Price Stable to Rising 

Price Stable to Decrease 

Vitamin Pricing Pressures Continue Rising Amid Supply Constraints



WATER SOLUBLE

VITAMINS CONT.

Trending Vitamins:

- VITAMIN K
- VITAMIN D
- VITAMIN B
- VITAMIN C

Vitamin C: Pricing is on the rise and expected to continue increasing. Many suppliers had been selling at a loss due to overcapacity for a significant period of time but with the upcoming planned “summer shutdown” prices are expected to continue to increase as suppliers look to recoup losses incurred over the last 2 years.



Vitamin B1 (Thiamine):

Both Mono and HCL versions are experiencing some increase in pricing due to raw material concerns.



Vitamin B2 (Riboflavin):

Riboflavin USP and food grade pricing are stable.



Vitamin B3 (Niacin/ Niacinamide):

Niacin/ Niacinamide pricing is on the rise. Demand remains strong amid continued growth in the personal care space. Additional capacity coming online should help stabilize pricing but in the short terms prices are increasing.



Vitamin B5 (Calcium

Pantothenate): B5 pricing is has increased significantly due to a surge in raw material costs. Historically prices tend to be volatile with this ingredient.



Vitamin B6 (Pyridoxine):

B6 pricing remains stable at low levels.



Vitamin B7 (Biotin):

Starting to see an increase in prices with certain suppliers, others have remained stable.



Vitamin B9 (Folic Acid):

Pricing has remained at elevated levels. Limited availability and raw material issues are keeping prices elevated currently.



Vitamin B12 (Cyanocobalamin)

The B12 market remains stable with ample supply.



Pricing Trends Key

Price Increase

Price Increase Due to Current Events

Price Stable

Price Decrease

Price Stable to Rising

Price Decrease to Stable



MINERALS

- MOST MINERALS REMAIN STABLE
- STABLE PRICING, BUT SLOWER AVAILABILITY

Trending Minerals

- Copper
- Magnesium Citrate
- Calcium Carbonate
- Zinc Citrate

Calcium Carbonate: Visit the Granulations section on page 11 for more information about our directly compressible version of SuperTab® oyster shell calcium carbonate.

- SuperTab® Oyster Shell Granulation (OSG) 2000 AM
- SuperTab® Oyster Shell Granulation 2100 Malto
- SuperTab® Oyster Shell Granulation 2300 Acacia

Copper: Despite tight supply, prices have stabilized amid weak demand.



Iron: Iron prices are stable, and supply is available.



Electrolytes

Calcium: Calcium prices are stable.



Magnesium: Magnesium market price and supply are stable.



Potassium: Potassium prices and availability are stable.



Phosphorus: Pricing is stable.



Sodium: Sodium prices have stabilized.



Zinc

Zinc prices and availability remains stable.



Zinc Gluconate: The price of Zinc Gluconate is stable however, lead times remain long.



Zinc Oxide: Prices for Zinc Oxide is stable.



Zinc Sulfate: Zinc Sulfate prices remain stable; however, lead times remain long.



Zinc Ascorbate: The price of Zinc Ascorbate is stable.



Zinc Citrate: Prices have stabilized.



Pricing Trends Key

Price Increase

Price Increase Due to Current Events

Price Stable

Price Decrease

Price Stable to Rising

Price Decrease to Stable

MINERALS CONT.

- MOST MINERAL PRICES REMAIN STABLE
- SOME MINERAL LEAD TIMES AFFECTING AVAILABILITY

Chelates

Zinc Amino Acid Chelate: Prices are stable.



Zinc Bisglycinate Chelate: Prices for zinc bisglycinate are stable.



Zinc Glycinate Chelate: Zinc Glycinate is experiencing longer than average lead times, but prices remain stable.



Copper Glycinate Chelate: Copper Glycinate prices are stabilizing amid weak demand.



Manganese Amino Acid Chelate: Manganese Amino Acid prices are starting to increase from strong demand.



Pricing Trends Key

Price Increase

Price Increase Due to Current Events

Price Stable

Price Decrease

Price Stable to Rising

Trace Minerals

Chromium: Chromium prices remain stable.



Molybdenum: The Molybdenum market is experiencing longer than normal lead times, but prices are remaining stable.



Selenium: Prices are stable.



PREMIXES

- MANUFACTURERS ARE SWITCHING TO PREMIXES
- CUSTOM PREMIXES SIMPLIFY NUTRIENT PROCUREMENT



Custom Nutrient Premixes

More and more manufacturers are switching to vitamin and mineral premixes. Premixes consolidate multiple nutrients into a quality-assured, single-step ingredient and deliver economies of scale by simplifying ingredient procurement from a single source.



TWG SuperBlend®

Our value-added SuperBlend® custom nutrient premixes deliver performance and stability in high temperature and shear processes in a variety of food and beverage products, including:

- Extruded bars
- Gummy supplements
- Breakfast cereals
- Ready to drink beverages
- Beverage mixes



MICROENCAPSULATION

- AN EFFECTIVE METHOD OF MASKING UNWANTED FEATURES
- DELIVER A WIDE-RANGE OF FUNCTIONAL INGREDIENTS



Microencapsulation Technology

Vitamins, minerals, and other nutrients possess unique characteristics that can affect the appearance, color, and odor of the final product. Microencapsulation is an effective method of masking unwanted sensory characteristics while maximizing nutrient function.

SuperCoat[®], our most recent innovation using our proprietary SMART[™] process, envelops particles at the microscopic level in a protective shell. This value-added coating technology delivers superior performance and stability of essential nutrients for a wide range of multi-functional ingredients.

Trending Microencapsulated Nutrients:

- Vitamin C
- Vitamin B5 (Calcium Pantothenate)
- Vitamin B9 (Folic Acid)

With a diverse portfolio of products, **TWG Health + Nutrition** is one of only a select group of manufacturers with the technology and resources to deliver independent manufacturing of custom premixes, microencapsulated nutrients, and granulations.

Our comprehensive supply chain and extensive list of pre-qualified ingredients allows us to react quickly to changing market trends and help you keep up with consumer demand. We also understand that superior service is just as important as technology and expertise. That's why we provide you with prompt quotations, technical assistance, and support documentation to help you efficiently deliver your products on time. Contact us today to talk to one of our experts about your project needs or ask about any ingredients not listed here.



GRANULATIONS

- DELIVER ESSENTIAL NUTRIENTS IN GRANULAR POWDERS IDEAL FOR HIGH SPEED TABLETING
- CAN BE INCORPORATED INTO DRUM-TO-HOPPER TABLET BLENDS



Granulations

Rather than outsource granulations from a third-party manufacturer, TWG Health + Nutrition has committed to developing technologies and processes in-house to effectively and efficiently manufacture **SuperTab® direct compressible granulations**.

SuperTab® granulations deliver essential nutrients in uniform, free-flowing, granular powders ideal for high speed tableting processes. As usual TWG Health + Nutrition combines quality, innovation and superior knowledge to make sure your product is the best it can be. Ask about our granulation capabilities today!

Trending Granulations:

- Glucosamine
- Chondroitin
- Vitamin C

Oyster Shell Granulation

SuperTab® Oyster Shell calcium carbonate is sourced from an above sea level deposit, characterized as fossilized oyster shell beds. These oyster shell beds have been thoroughly vetted over the past ten years with testing of the material both analytically and physically to insure consistency and purity. TWG Health + Nutrition sources the high purity genuine shells exclusively from a domestic supplier.

Contact us today to get started on your next dietary supplement product containing calcium carbonate granulations. Insist on SuperTab® Oyster Shell authenticity in your formulation.



**SUPER
TAB®**
Direct Compressible Granulations

POWERED BY PROTEIN, PROVEN BY SCIENCE™

Custom protein formulations
to address specific
functional needs.

POWERING YOUR NEXT
FORMULATION



WRIGHTPRO®

Custom Protein Blends



Call 1.800.201.3096
Visit twghealthandnutrition.com

