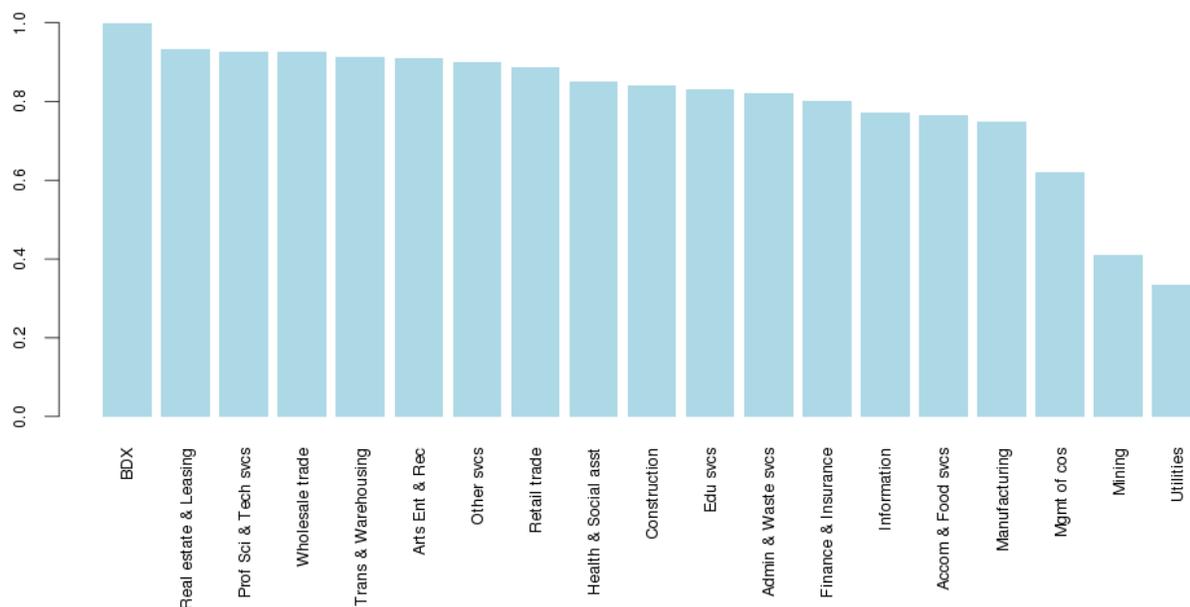# INDUSTRY DEFAULT CORRELATIONS

Understanding industry default correlations is important for obtaining an accurate portfolio risk profile and constructing diversified portfolios. We present here results of an analysis conducted using WAIN Street's Business Default Index.

Business Default Index correlation with industry sectors

The above chart shows the correlation between the Business Default Index (BDX) and industry sector-based sub-indices using monthly data from December 2009 till February 2014. The industry sectors are sorted in decreasing order of correlation.

Leading industry sector	Target industry sector	Number lead months	Correlation
Manufacturing	Utilities	4	0.37
Information	Mining	4	0.34
Mining	Utilities	3	0.26
Accom & Food svcs	Retail trade	2	0.59
Trans & Warehousing	Mining	2	0.38
Wholesale trade	Mining	2	0.35
Utilities	Admin & Waste svcs	2	0.32
Utilities	Retail trade	2	0.29
Admin & Waste svcs	Mining	2	0.28
Utilities	Construction	2	0.23
Mining	Construction	1	0.22

The table above summarizes results of a cross correlation analysis. Here, *Number lead months* is the delay in months that a peak in defaults in the *Leading industry sector* would be followed by a peak in defaults in the *Target industry sector*. The *Correlation* column reports the strength of the relationship.

Industry sector correlations

The above chart shows the pairwise correlations between industry sectors. The size of the circle represents the magnitude—the larger the circle the stronger the correlation. Blue circles represent positive correlation while red circles represent negative correlations.

Monthly data from December 2009 till February 2014 were used for this analysis.

Industry sector clusters

The above chart clusters industry sectors based on their pairwise correlation. A bolder ellipse indicates weaker correlation and hence higher diversification opportunity. Blue represents positive correlation and red represents negative correlation.

Monthly data from December 2009 till February 2014 were used for this analysis.

About the WAIN Street Business Default Index

The Business Default Index (BDX) is the first component of the WAIN Street Business Credit Health Index™ (BCH Index). Every month, the BCH Index aggregates multiple micro-level indicators concerning nearly 30 million businesses to reflect the holistic credit health of obligors nationwide.

Methodology

The BDX is based on the credit performance of a subset of nearly 18 million businesses that have been tracked by WAIN Street for over 12 months. A weighted aggregate, the BDX reflects the incidence and severity of defaults.

Defaults arise whenever there is non-performance of an obligation. The BDX incorporates the spectrum of defaults – delinquencies, charge-offs, and bankruptcies. Business-level defaults are pooled within demographic segments based on industry, geography and employee size.   Default events within a segment are aggregated using weights designed to reflect default severity. Segments are assigned weights to reflect the *economic impact* of the businesses within the segment.   Index values are obtained as the weighted harmonic mean across segments.

The BDX is seasonally adjusted and quoted as an annualized rate.

The index inception date is December 31, 2009.

Industry coverage

The BDX is designed to track "private, non-farm businesses" and excludes the following NAICS codes:

Description	NAICS Code
Agriculture, forestry, fishing and hunting	11
Rail transportation	482
Postal service	491
Financial vehicles	525
Religious, grantmaking, civic, professional, and similar organizations	813
Private households	814
Public administration	92

About WAIN Street

WAIN Street empowers credit markets to better serve middle-market and small business enterprises. By harnessing data on nearly 30 million US businesses, the WAIN Street Business Credit Health Index™ (BCH Index) provides an aggregate view of credit health trends with the ability to drill-down to granular demographic segments. The BCH Index is a platform that enables consistent measurement of middle-market and small business credit portfolio quality. This facilitates coherent industry-wide communication around portfolio credit risk and unlocks new opportunities.

Middle-market and small businesses account for over $1 trillion of aggregate credit exposure. The BCH Index and complementary WAIN Street services facilitate discovery, more effective management, and pricing of risks and opportunities that exist in this market. These capabilities create greater financing options for middle-market and small businesses, enhance liquidity for lenders, and promote financial innovation to stimulate entrepreneurship and new job creation in the US.

For more information:

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