

Economics Group

Interest Rate Weekly

John E. Silvia, Chief Economist
john.silvia@wellsfargo.com • (704) 410-3275

Corporate Finance Part II: Trends in Corporate Leverage

What are the statistical properties of the most familiar corporate financial benchmarks? Once estimated, what do these statistical numbers tell us about actual corporate activity?

Corporate Debt as a Share of GDP

One comment that pervades over economic expansions is that corporate debt is high/low relative to the size of the economy. This series is illustrated in the top graph and exhibits a number of interesting properties. First, the series is not mean reverting and provides evidence of two structural breaks since 1982. One suspects the series is not mean reverting by simply looking at the graph and noticing that the series appears to drift up over time. In this sense, the corporate debt sector is more leveraged today than before, but as we have written before, interest expense as a share of corporate cash flow is lower today than most periods in the past 30 years.

There are two structural breaks in the series. First, in October 1985, there is a shift upward that appears reasonable given the downshift in market rates at the time. Second, there is a downshift in the series in October 2009 which is also reasonable in response to the 2008-2009 recession.

Finally the series is a non-linear series as would be expected by viewing the graph. This makes linear projections of the debt/income ratio immediately inaccurate.

Corporate Leverage: Debt to Equity Ratio

Leverage in the corporate sector is sometimes judged by the ratio of debt to equity as illustrated in the middle graph. First, it is clear that the series is non-stationary and thereby is not mean reverting. While many commentators would like to envision an optimum ratio, the markets do not allow for such a result.

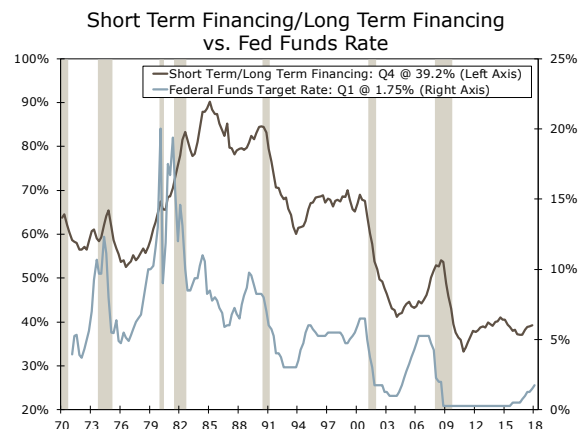
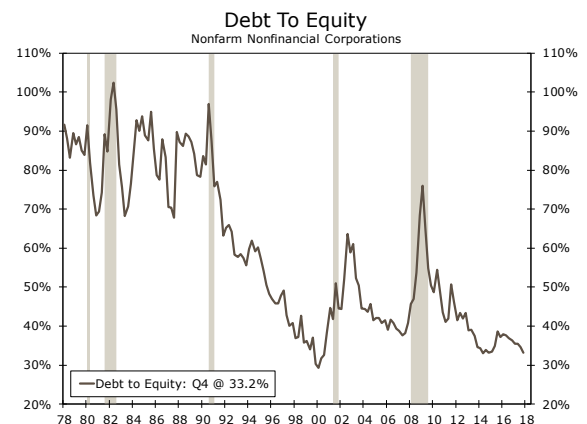
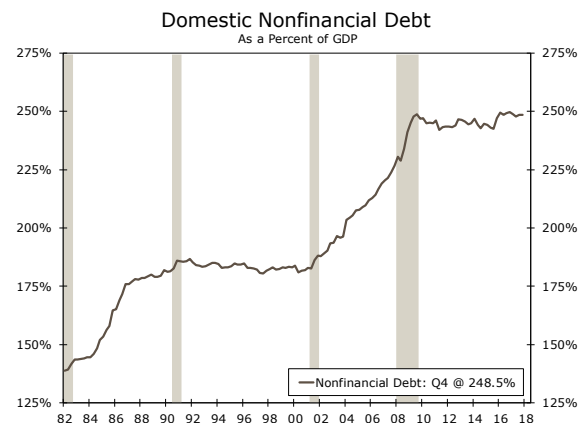
Second, there are several statistically significant breaks in the series. There are two examples of upward shifts—October 1987 and October 2008—both associated with large declines in the equity market.

Finally, there is the nonlinear character of the series that one can observe from the graph. There are distinct peaks in the series at or near a recession as the equity market tends to sell off as earnings disappointments increase.

Short-Term versus Long-Term Debt and the Funds Rate

Our work always emphasizes the link between markets. For the ratio of short-term to long-term debt finance, as illustrated in the bottom graph, the interesting observation is that causality runs from the federal funds rate to this ratio and not from this ratio to the funds rate. This would certainly help explain the long downward slope of this series since 1982 that has corresponded with the long-term decline in the funds rate.

This series has a linear trend which opens up the possibility that we can estimate the effect over time of the funds rate on this ratio. It also opens up the possibility that a rising fed funds rate scenario going forward would be associated with a rising short-term/long-term debt ratio—quite a change for the markets going forward.



Wells Fargo U.S. Interest Rate Forecast

	Actual				Forecast							
	2017				2018				2019			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Quarter End Interest Rates												
Federal Funds Target Rate	1.00	1.25	1.25	1.50	1.75	2.00	2.25	2.50	2.50	2.75	2.75	3.00
3 Month LIBOR	1.15	1.30	1.33	1.69	2.05	2.30	2.55	2.80	2.80	3.05	3.05	3.30
Prime Rate	4.00	4.25	4.25	4.50	4.75	5.00	5.25	5.50	5.50	5.75	5.75	6.00
Conventional Mortgage Rate	4.20	3.90	3.81	3.94	4.35	4.37	4.45	4.60	4.72	4.77	4.82	4.87
3 Month Bill	0.76	1.03	1.06	1.39	1.85	2.10	2.15	2.40	2.60	2.65	2.70	2.75
6 Month Bill	0.91	1.14	1.20	1.53	1.95	2.20	2.25	2.50	2.70	2.75	2.80	2.85
1 Year Bill	1.03	1.24	1.31	1.76	2.12	2.25	2.30	2.55	2.75	2.80	2.85	2.90
2 Year Note	1.27	1.38	1.47	1.89	2.32	2.50	2.70	2.92	3.05	3.12	3.19	3.26
5 Year Note	1.93	1.89	1.92	2.20	2.72	2.80	2.88	2.97	3.10	3.17	3.24	3.31
10 Year Note	2.40	2.31	2.33	2.40	2.90	2.95	3.05	3.20	3.32	3.37	3.42	3.47
30 Year Bond	3.02	2.84	2.86	2.74	3.25	3.35	3.45	3.60	3.66	3.70	3.74	3.78

Forecast as of: March 14, 2018

Wells Fargo U.S. Economic Forecast and FOMC Central Tendency Projections

	<u>2018</u>	<u>2019</u>
Change in Real Gross Domestic Product		
Wells Fargo	2.6	2.8
FOMC	2.6 to 3.0	2.2 to 2.6
Unemployment Rate		
Wells Fargo	3.8	3.7
FOMC	3.6 to 3.8	3.4 to 3.7
PCE Inflation		
Wells Fargo	2.1	2.1
FOMC	1.8 to 2.0	2.0 to 2.2
"Core" PCE Deflator		
Wells Fargo	2.0	2.1
FOMC	1.8 to 2.0	2.0 to 2.2

Forecast as of: March 14, 2018

NOTE: Projections of change in real gross domestic product (GDP) and in inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation is the percentage rate of change in the price index for personal consumption expenditures (PCE).

Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated.

Fed Data as of: March 21, 2018

Wells Fargo Securities Economics Group

Diane Schumaker-Krieg	Global Head of Research, Economics & Strategy	(704) 410-1801 (212) 214-5070	diane.schumaker@wellsfargo.com
John E. Silvia, Ph.D.	Chief Economist	(704) 410-3275	john.silvia@wellsfargo.com
Mark Vitner	Senior Economist	(704) 410-3277	mark.vitner@wellsfargo.com
Jay H. Bryson, Ph.D.	Global Economist	(704) 410-3274	jay.bryson@wellsfargo.com
Sam Bullard	Senior Economist	(704) 410-3280	sam.bullard@wellsfargo.com
Nick Bennenbroek	Currency Strategist	(212) 214-5636	nicholas.bennenbroek@wellsfargo.com
Anika R. Khan	Senior Economist	(212) 214-8543	anika.khan@wellsfargo.com
Eugenio J. Alemán, Ph.D.	Senior Economist	(704) 410-3273	eugenio.j.aleman@wellsfargo.com
Azhar Iqbal	Econometrician	(704) 410-3270	azhar.iqbal@wellsfargo.com
Tim Quinlan	Senior Economist	(704) 410-3283	tim.quinlan@wellsfargo.com
Eric Viloria, CFA	Currency Strategist	(212) 214-5637	eric.viloria@wellsfargo.com
Sarah House	Senior Economist	(704) 410-3282	sarah.house@wellsfargo.com
Michael A. Brown	Economist	(704) 410-3278	michael.a.brown@wellsfargo.com
Jamie Feik	Economist	(704) 410-3291	jamie.feik@wellsfargo.com
Charlie Dougherty	Economist	(704) 410-6542	charles.dougherty@wellsfargo.com
Erik Nelson	Currency Strategist	(212) 214-5652	erik.f.nelson@wellsfargo.com
Michael Pugliese	Economist	(704) 410-3156	michael.d.pugliese@wellsfargo.com
Harry Pershing	Economic Analyst	(704) 410-3034	harry.pershing@wellsfargo.com
Hank Carmichael	Economic Analyst	(704) 410-3059	john.h.carmichael@wellsfargo.com
Ariana Vaisey	Economic Analyst	(704) 410-1309	ariana.b.vaisey@wellsfargo.com
Abigail Kinnaman	Economic Analyst	(704) 410-1570	abigail.kinnaman@wellsfargo.com
Shannon Seery	Economic Analyst	(704) 410-1681	shannon.seery@wellsfargo.com
Donna LaFleur	Executive Assistant	(704) 410-3279	donna.lafleur@wellsfargo.com
Dawne Howes	Administrative Assistant	(704) 410-3272	dawne.howes@wellsfargo.com

Wells Fargo Securities Economics Group publications are produced by Wells Fargo Securities, LLC, a U.S. broker-dealer registered with the U.S. Securities and Exchange Commission, the Financial Industry Regulatory Authority, and the Securities Investor Protection Corp. Wells Fargo Securities, LLC, distributes these publications directly and through subsidiaries including, but not limited to, Wells Fargo & Company, Wells Fargo Bank N.A., Wells Fargo Clearing Services, LLC, Wells Fargo Securities International Limited, Wells Fargo Securities Asia Limited and Wells Fargo Securities (Japan) Co. Limited. Wells Fargo Securities, LLC is registered with the Commodities Futures Trading Commission as a futures commission merchant and is a member in good standing of the National Futures Association. Wells Fargo Bank, N.A. is registered with the Commodities Futures Trading Commission as a swap dealer and is a member in good standing of the National Futures Association. Wells Fargo Securities, LLC and Wells Fargo Bank, N.A. are generally engaged in the trading of futures and derivative products, any of which may be discussed within this publication. Wells Fargo Securities, LLC does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC's research analysts receive compensation that is based upon and impacted by the overall profitability and revenue of the firm which includes, but is not limited to investment banking revenue. The information and opinions herein are for general information use only. Wells Fargo Securities, LLC does not guarantee their accuracy or completeness, nor does Wells Fargo Securities, LLC assume any liability for any loss that may result from the reliance by any person upon any such information or opinions. Such information and opinions are subject to change without notice, are for general information only and are not intended as an offer or solicitation with respect to the purchase or sales of any security or as personalized investment advice. Wells Fargo Securities, LLC is a separate legal entity and distinct from affiliated banks and is a wholly owned subsidiary of Wells Fargo & Company © 2018 Wells Fargo Securities, LLC.

Important Information for Non-U.S. Recipients

For recipients in the EEA, this report is distributed by Wells Fargo Securities International Limited ("WFSIL"). WFSIL is a U.K. incorporated investment firm authorized and regulated by the Financial Conduct Authority. The content of this report has been approved by WFSIL a regulated person under the Act. For purposes of the U.K. Financial Conduct Authority's rules, this report constitutes impartial investment research. WFSIL does not deal with retail clients as defined in the Markets in Financial Instruments Directive 2007. The FCA rules made under the Financial Services and Markets Act 2000 for the protection of retail clients will therefore not apply, nor will the Financial Services Compensation Scheme be available. This report is not intended for, and should not be relied upon by, retail clients. This document and any other materials accompanying this document (collectively, the "Materials") are provided for general informational purposes only.

SECURITIES: NOT FDIC-INSURED/NOT BANK-GUARANTEED/MAY LOSE VALUE

