

Chart-1

US GDP GROWTH RATE

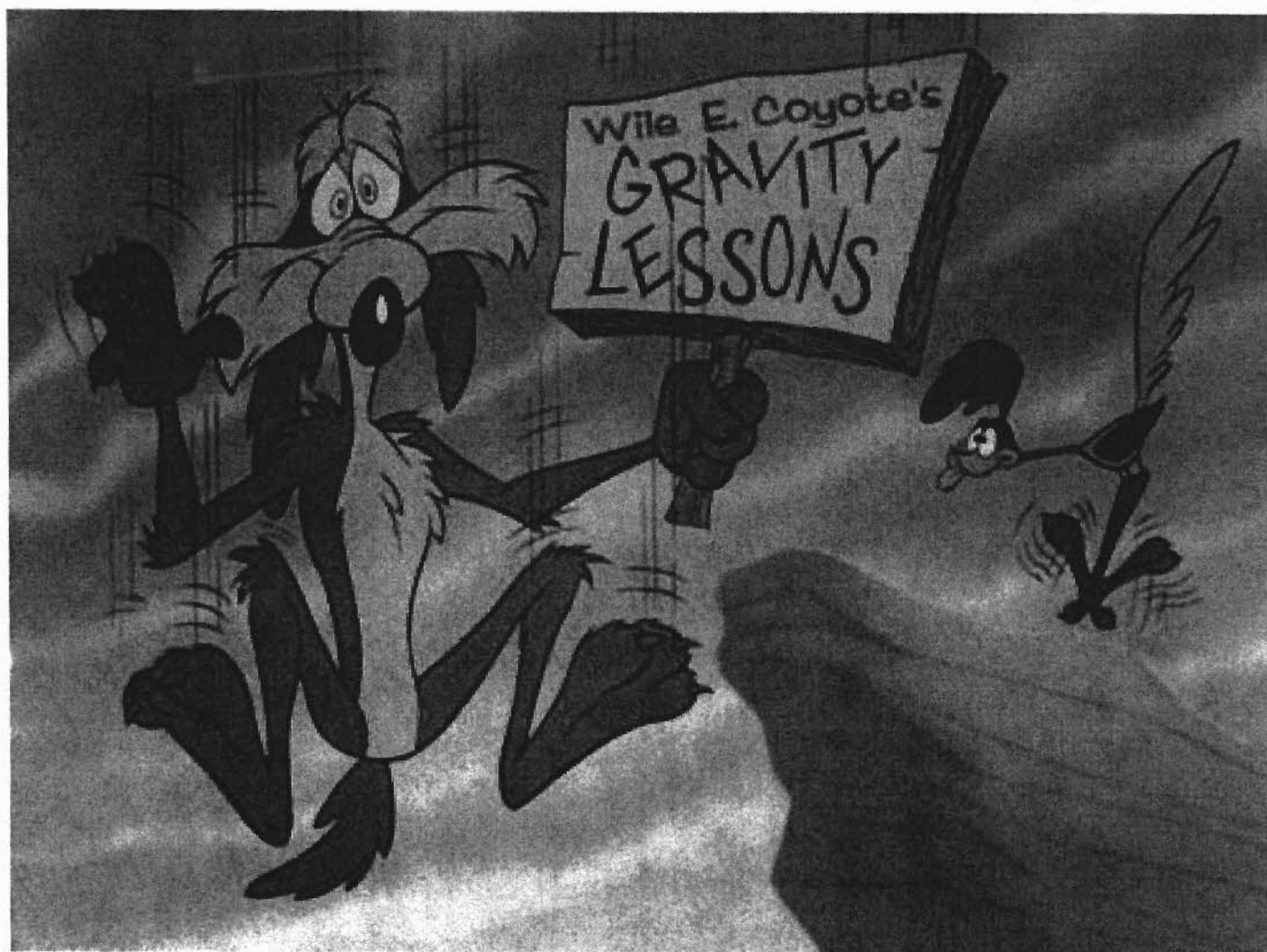
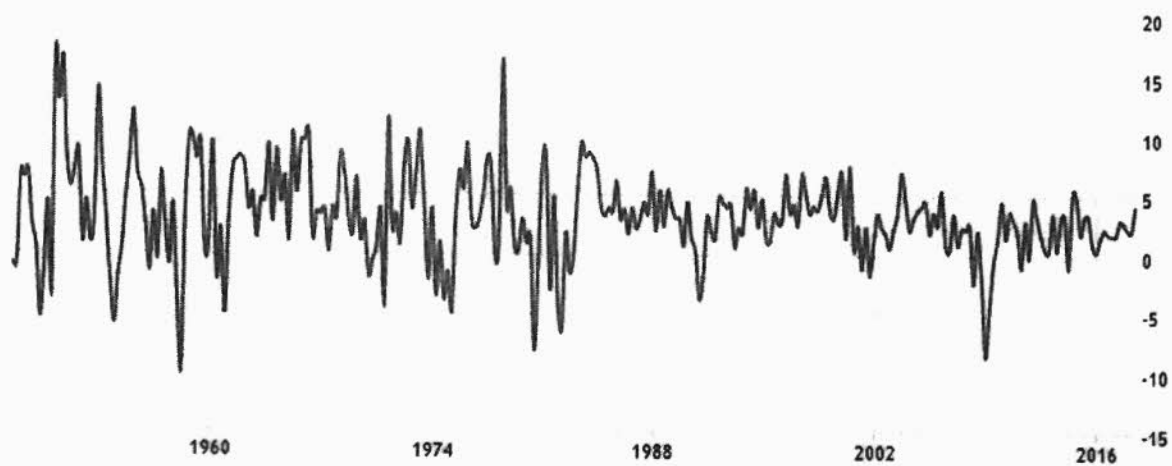


Chart - 2

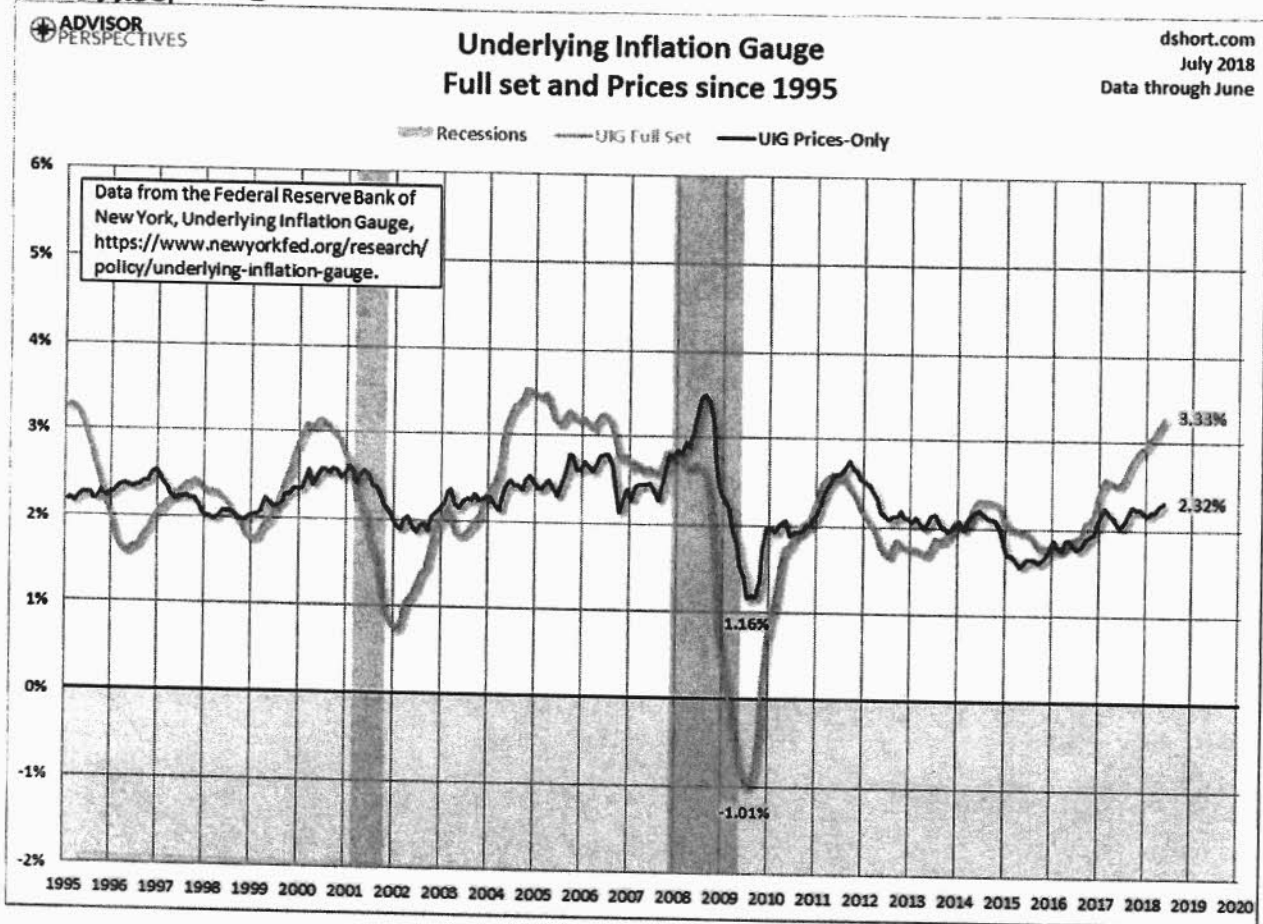
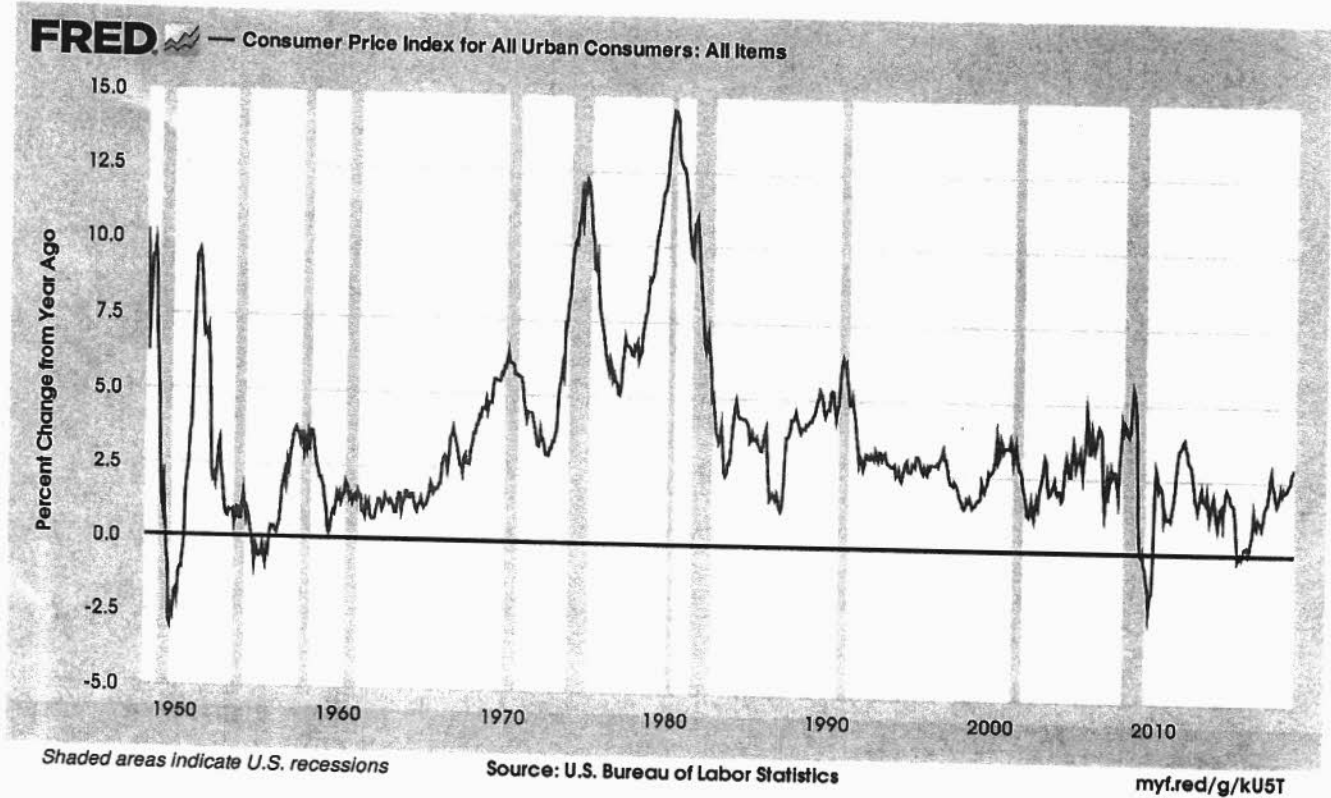


Chart - 3



NFIB Small Business Optimism Index

dshort.com
September 2018
Data through August

..... Current Level is now at 108.8 • Recession Starts

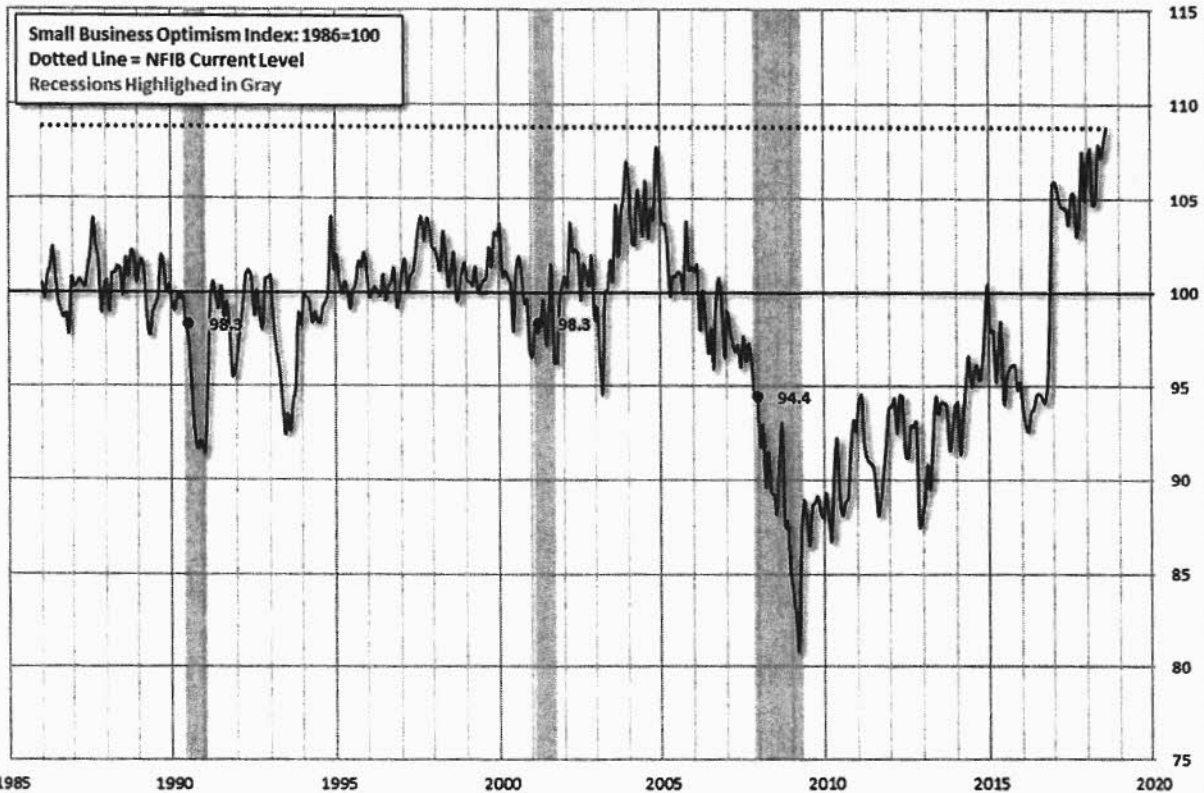


Chart-5 Conference Board Consumer Confidence Index Recessions Highlighted in Gray, Real GDP Shown Below

dshort.com
August 2018

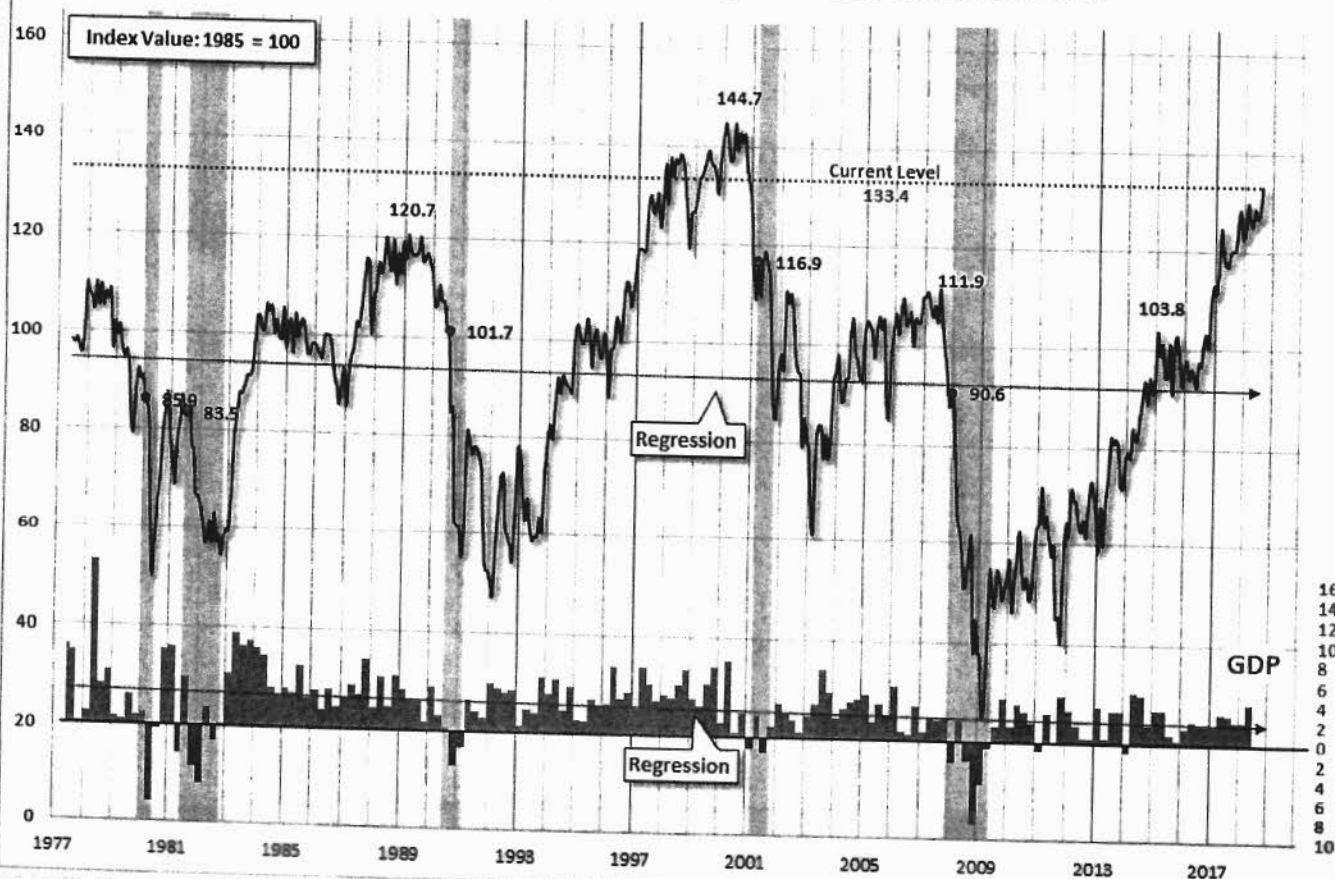


Chart-6 Consumers' Love Affair with Present Not Matched by Feelings About Future

■ Recessions 1 Present Situation Index 2 Consumer Expectations Index

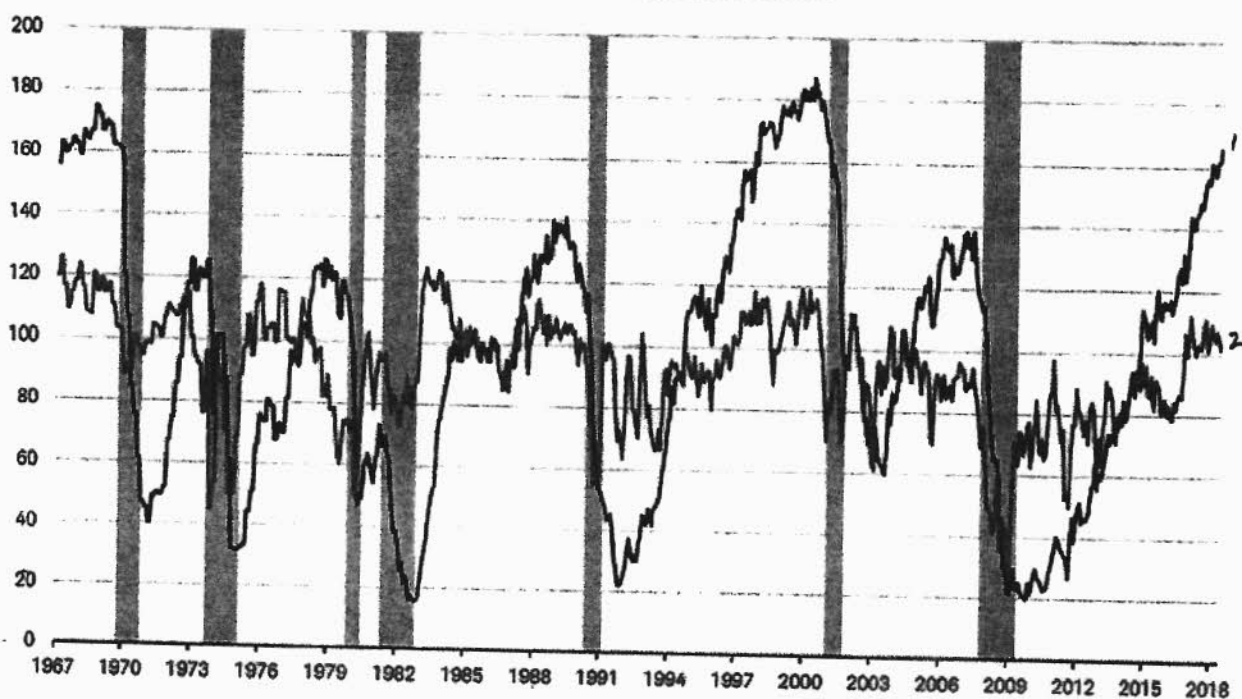


chart-7

The U.S. equity market usually peaks before the recession hits
S&P 500 Index compared to its value at recession start dates -
recession start = 100 for each of seven prior cycles

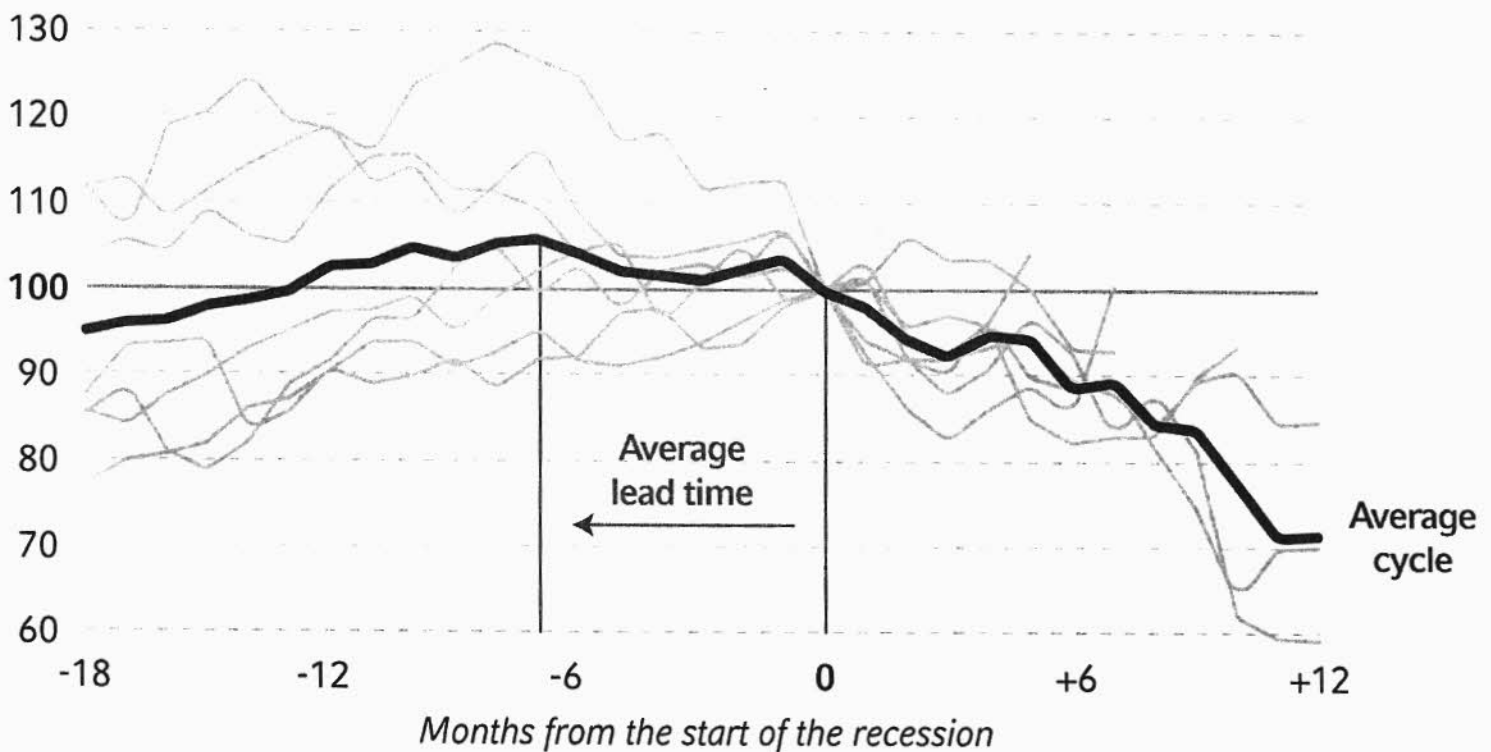


Chart-8

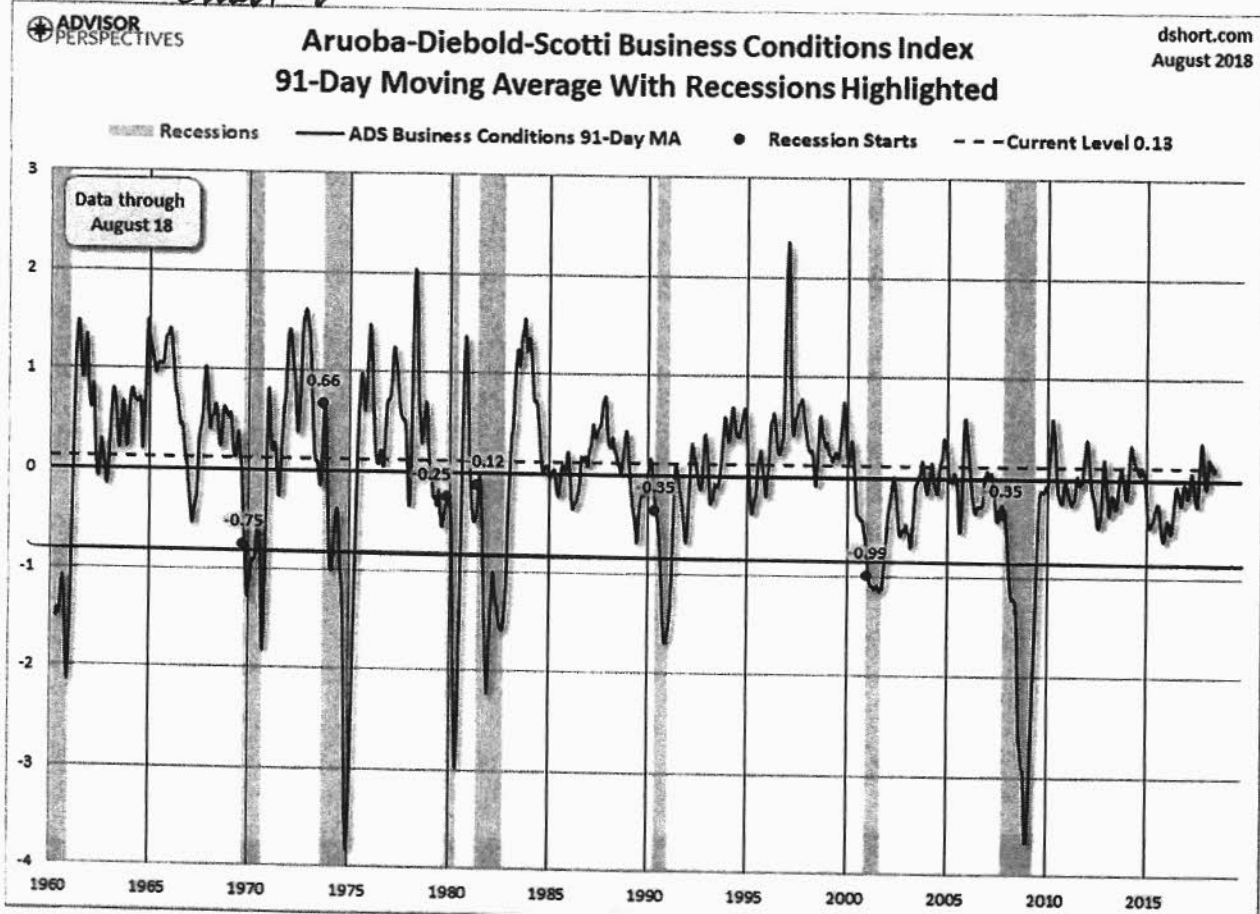


Chart-9

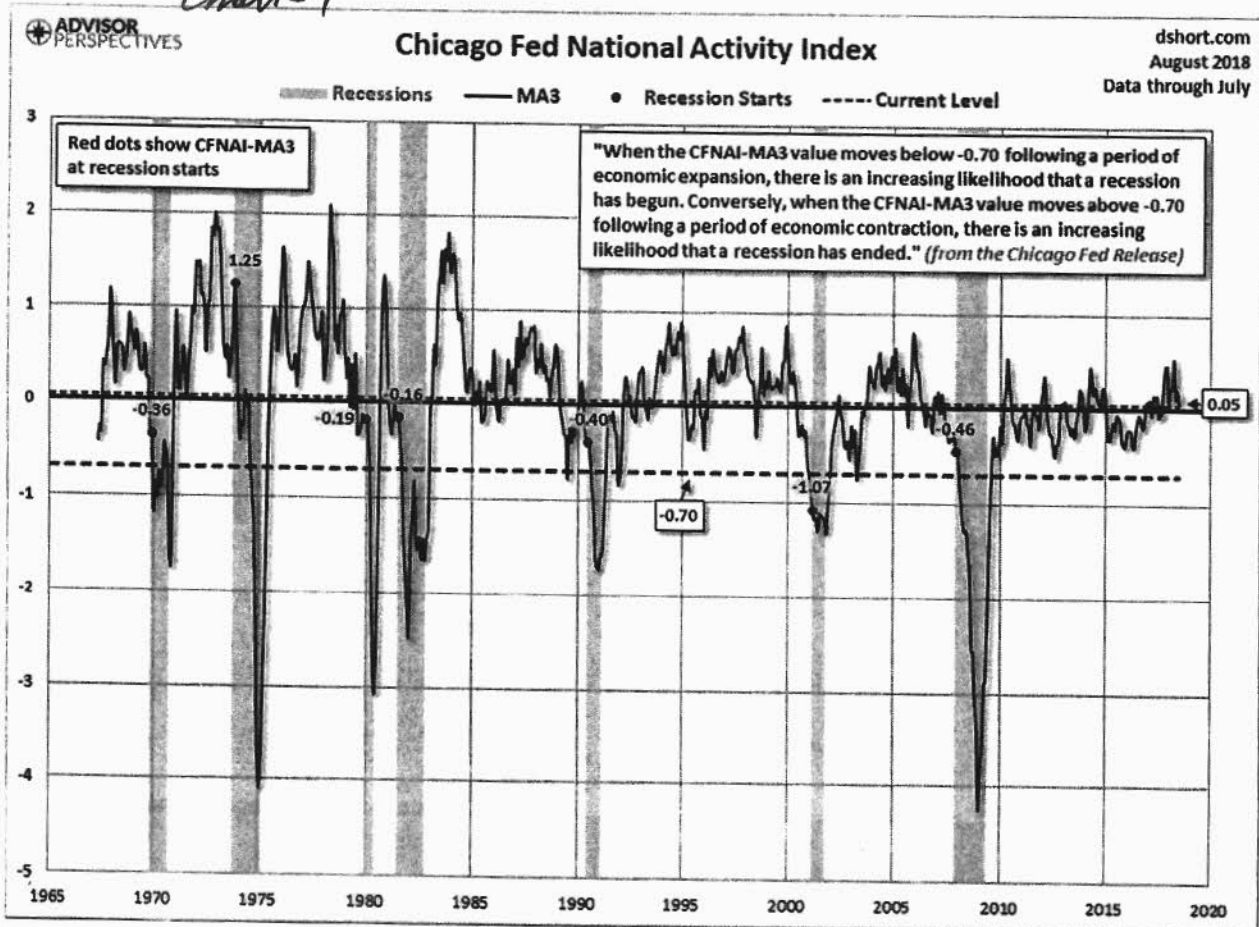
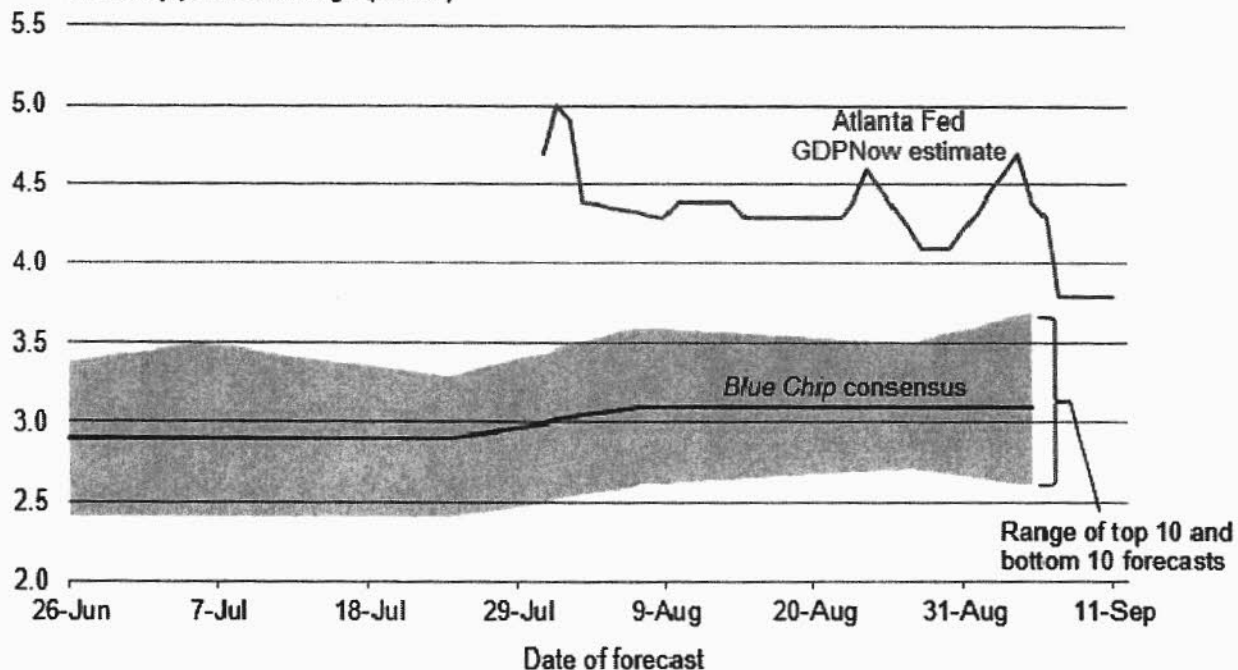


Chart-10

Evolution of Atlanta Fed GDPNow real
GDP estimate for 2018: Q3
Quarterly percent change (SAAR)

GDPNow

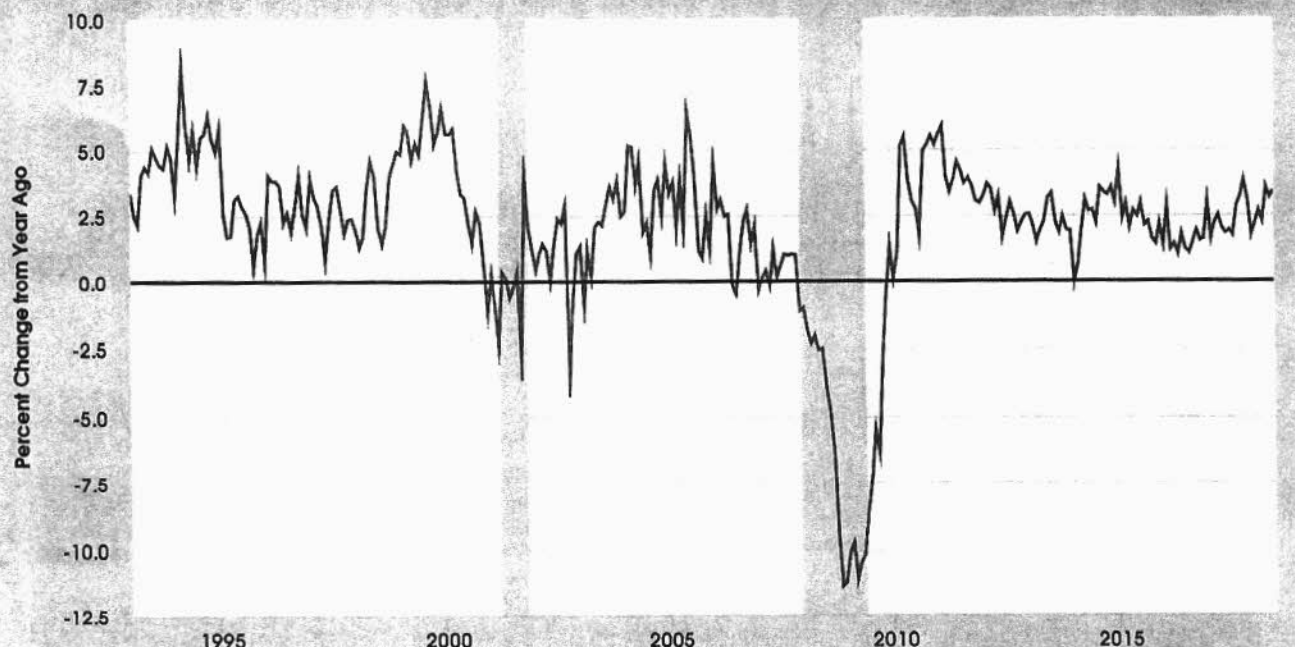


Sources: Blue Chip Economic Indicators and Blue Chip Financial Forecasts

Note: The top (bottom) 10 forecast is an average of the highest (lowest) 10 forecasts in the Blue Chip survey.

Chart-11

FRED — Advance Real Retail and Food Services Sales



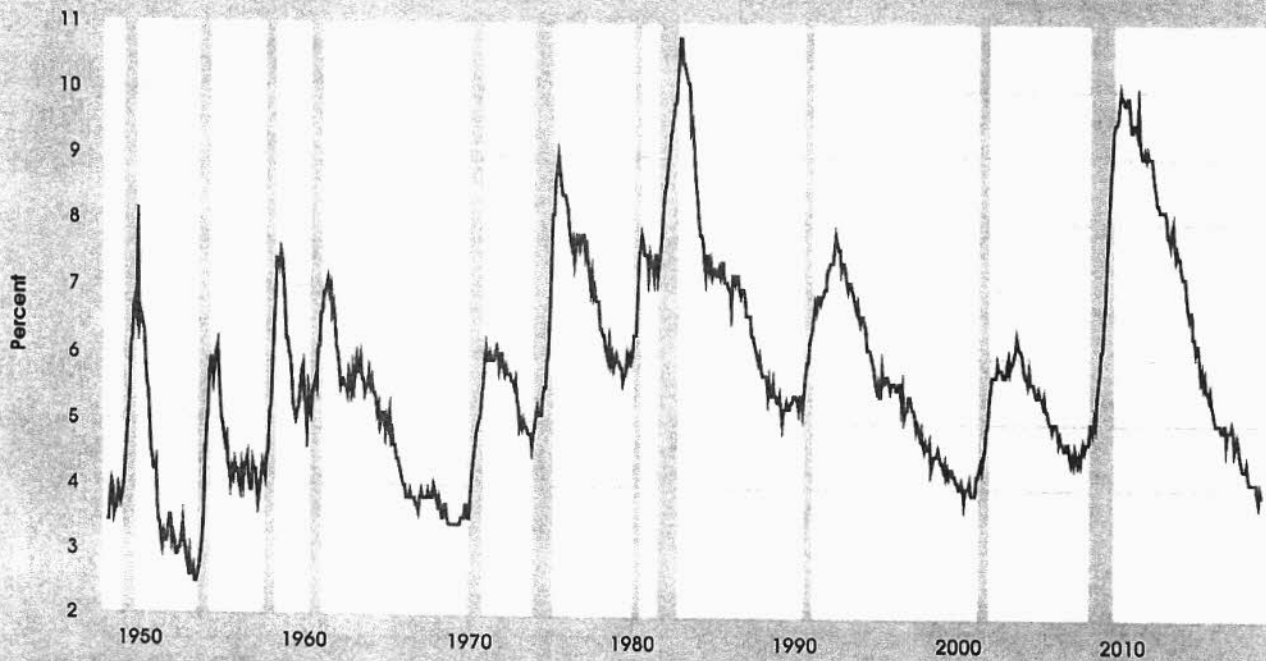
Shaded areas indicate U.S. recessions

Source: Federal Reserve Bank of St. Louis

myf.red/g/kSS9

Chart-12

FRED — Civilian Unemployment Rate



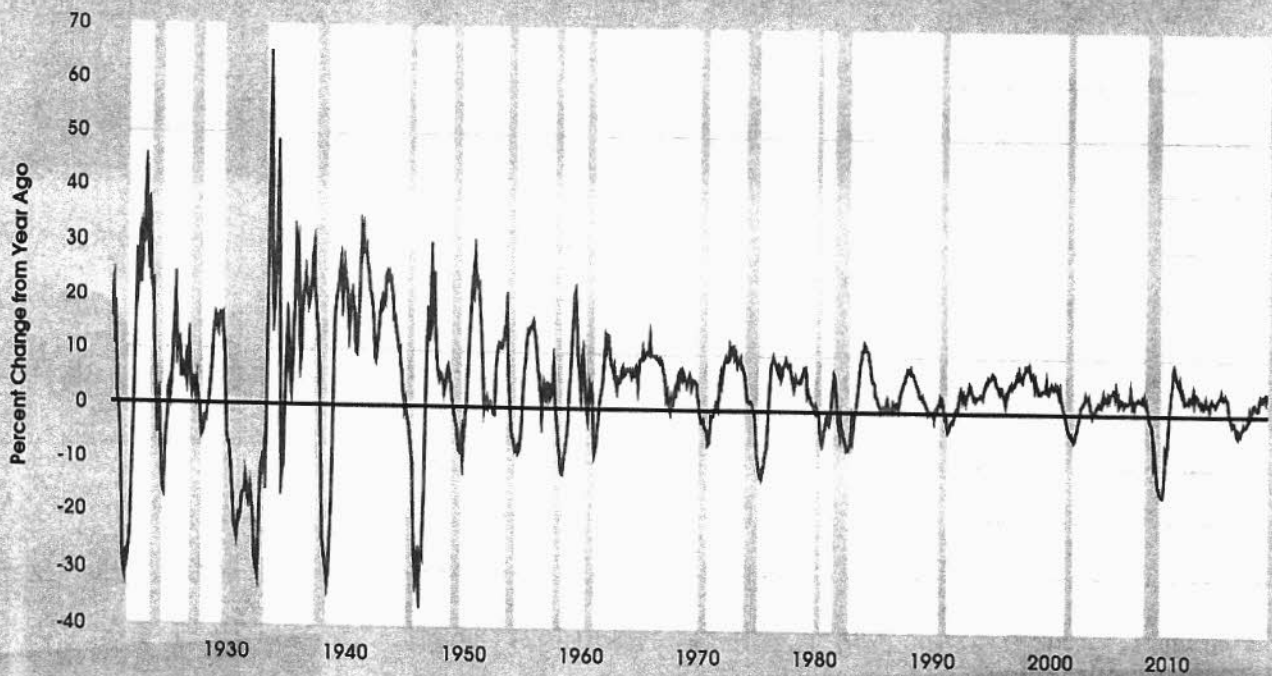
Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

myf.red/g/l7bH

Chart-13

FRED — Industrial Production Index



Shaded areas indicate U.S. recessions

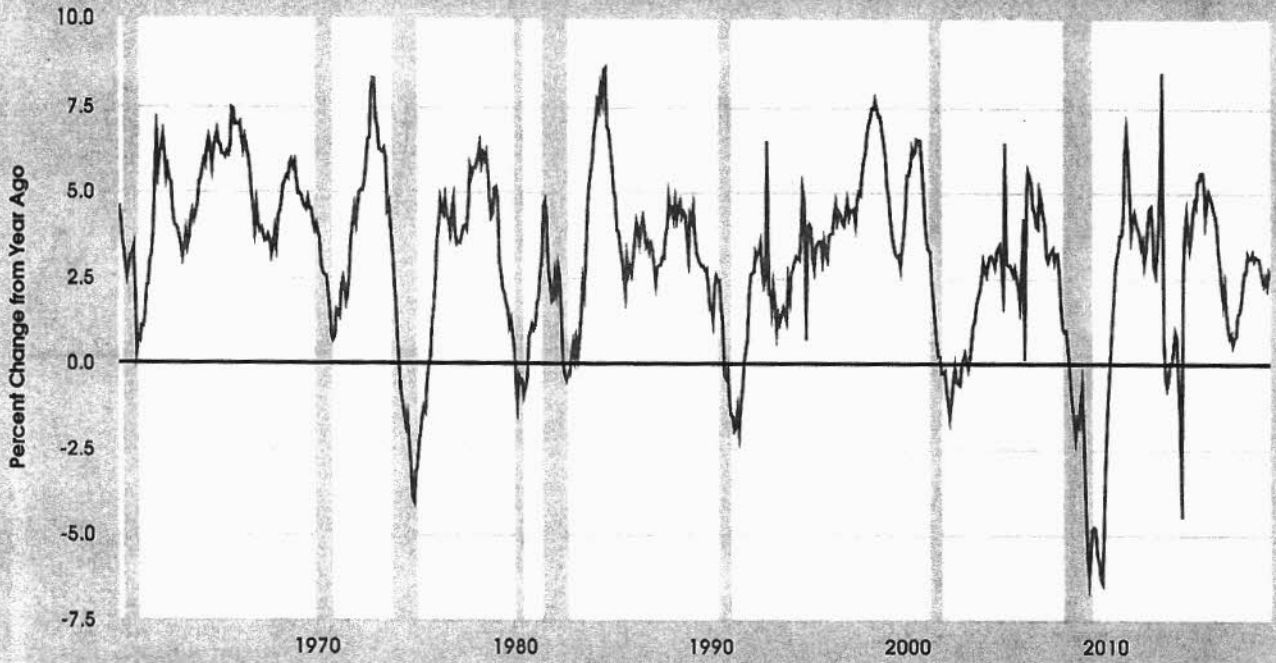
Source: Board of Governors of the Federal Reserve System (US)

myf.red/g/l82Y

Chart-14

FRED

— Real personal income excluding current transfer receipts



Shaded areas indicate U.S. recessions

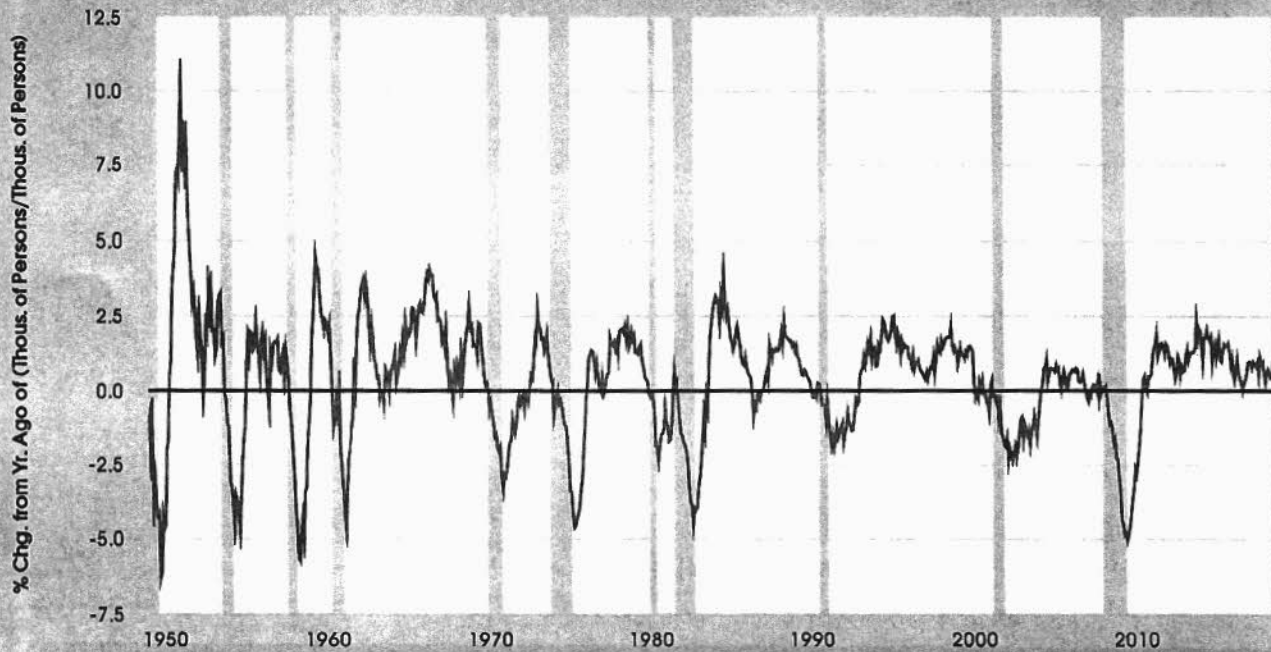
Source: U.S. Bureau of Economic Analysis

myf.red/g/la53

Chart-15

FRED

— All Employees: Total Nonfarm Payrolls/Civilian Labor Force



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

myf.red/g/la59

Chart-16

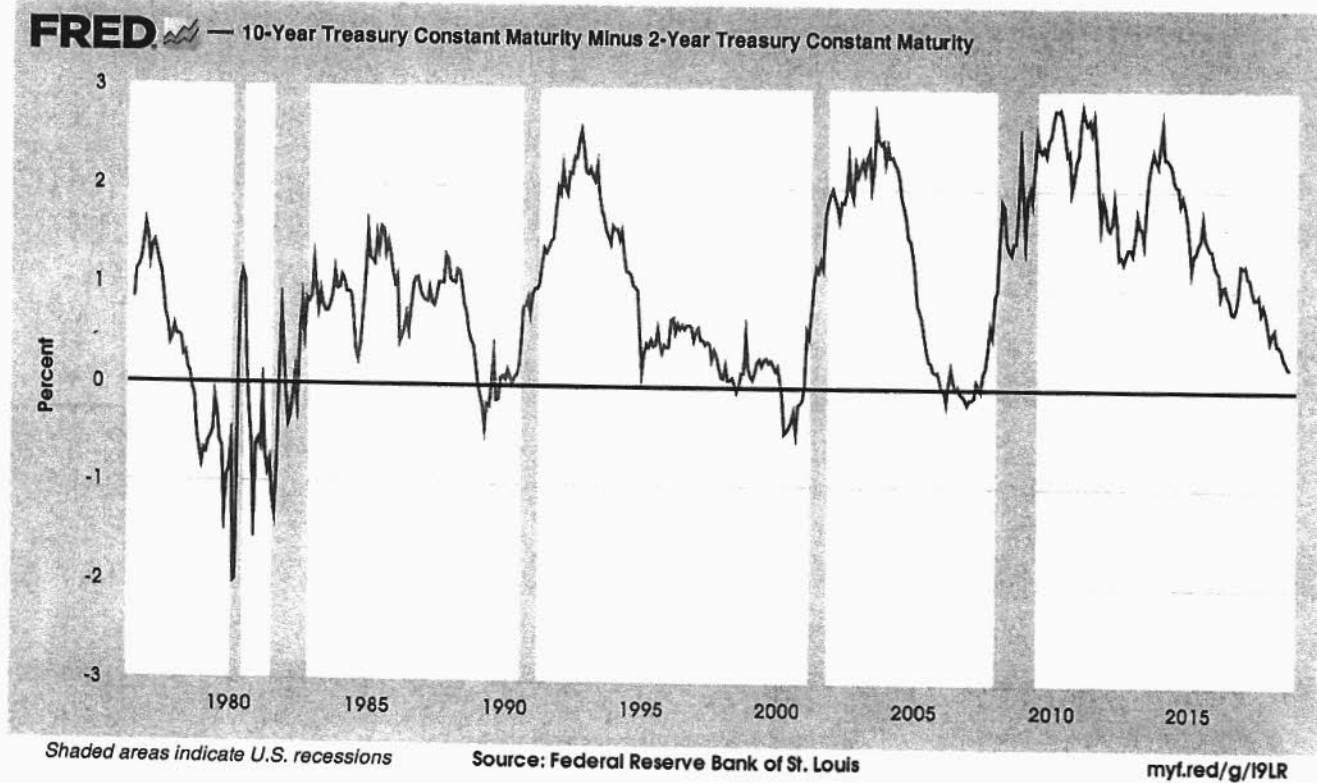


Chart-17

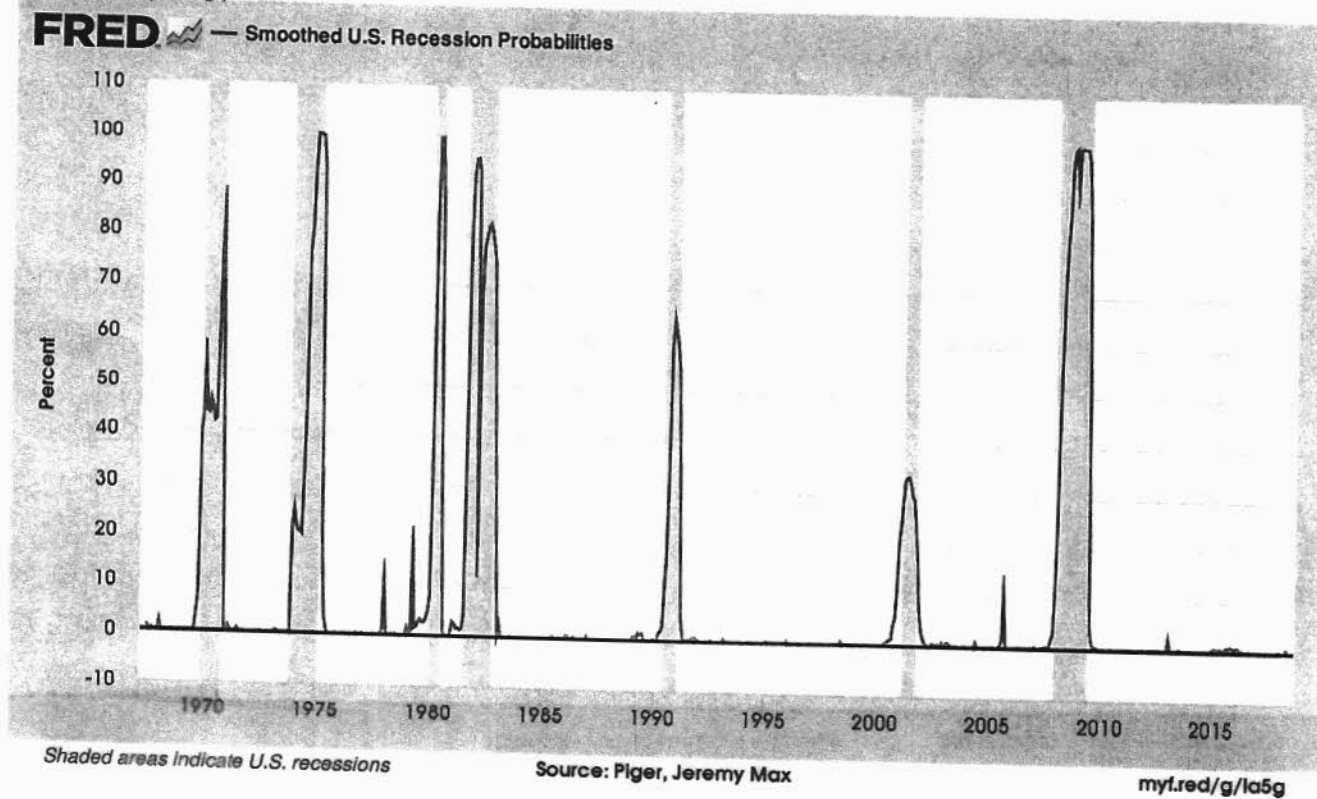
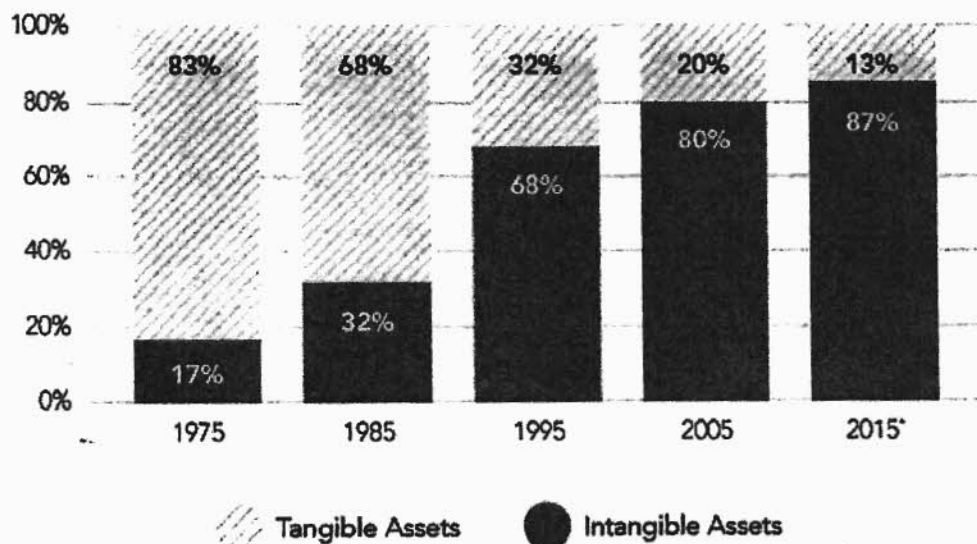


Figure-1
COMPONENTS of S&P 500 MARKET VALUE



SOURCE: OCEAN TOMO, LLC

Figure-2

Percentage of loss firms: 1960-2016

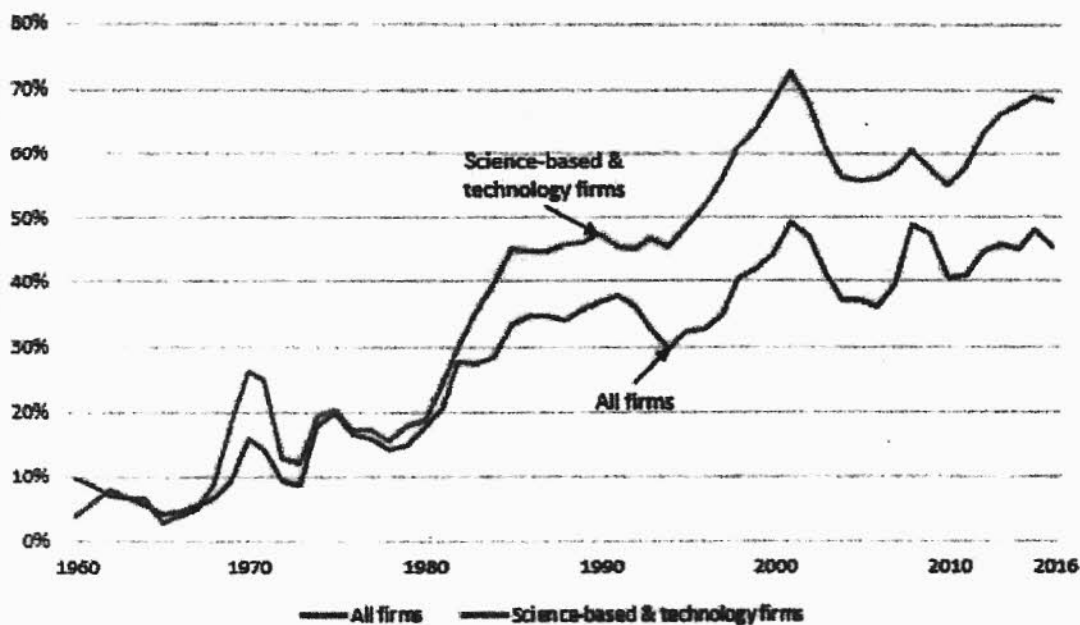
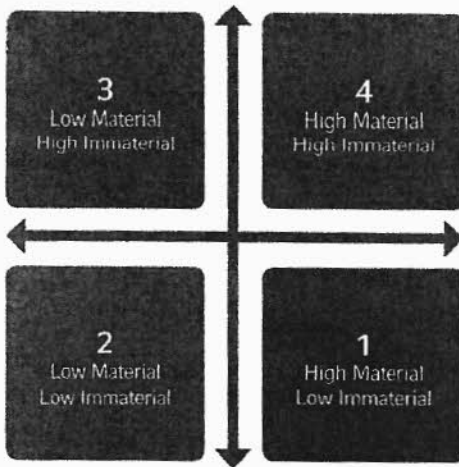


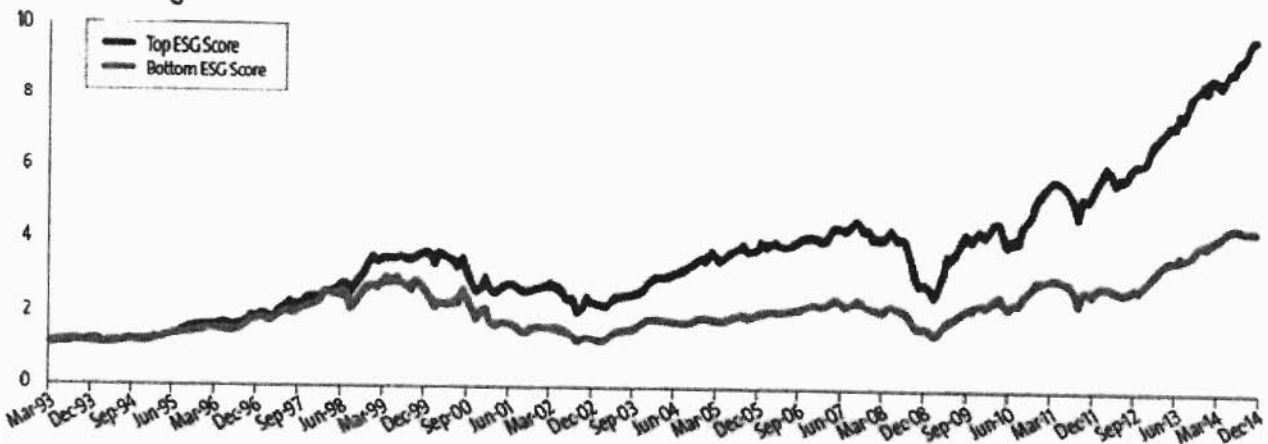
Figure-3

(Mapping of performance) of both material and immaterial categories.
(Khan, Serafeim, and Yoon, 2016), US Large Cap Universe, 1991 - 2013



Four-factor alphas ¹ (1991-2013)	Annualized alpha	Difference in alphas
1 - High Material, Low Immaterial	6.01%	
2 - Low Material, Low Immaterial	-2.90%	8.90%
3 - Low Material, High Immaterial	0.60%	5.41%
4 - High Material, High Immaterial	1.96%	4.05%

Figure-4



Source: Khan, Mozaifar and Serafeim, George and Yoon, Aaron S, Corporate Sustainability: First Evidence on Materiality (November 9, 2016). The Accounting Review Vol. 91, No. 6, pp. 1697-1724. <http://ssrn.com/abstract=2575912>

Figure - 5

Growing up

U.S. and European ESG fund assets, 2013-2017

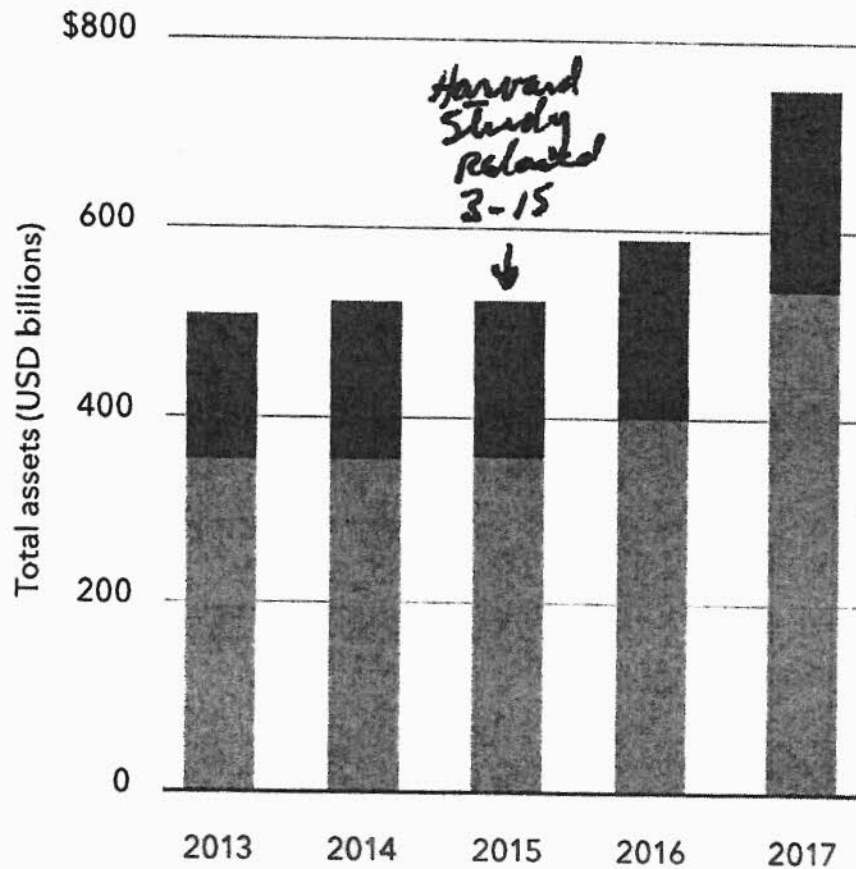


Figure - 6 Stages

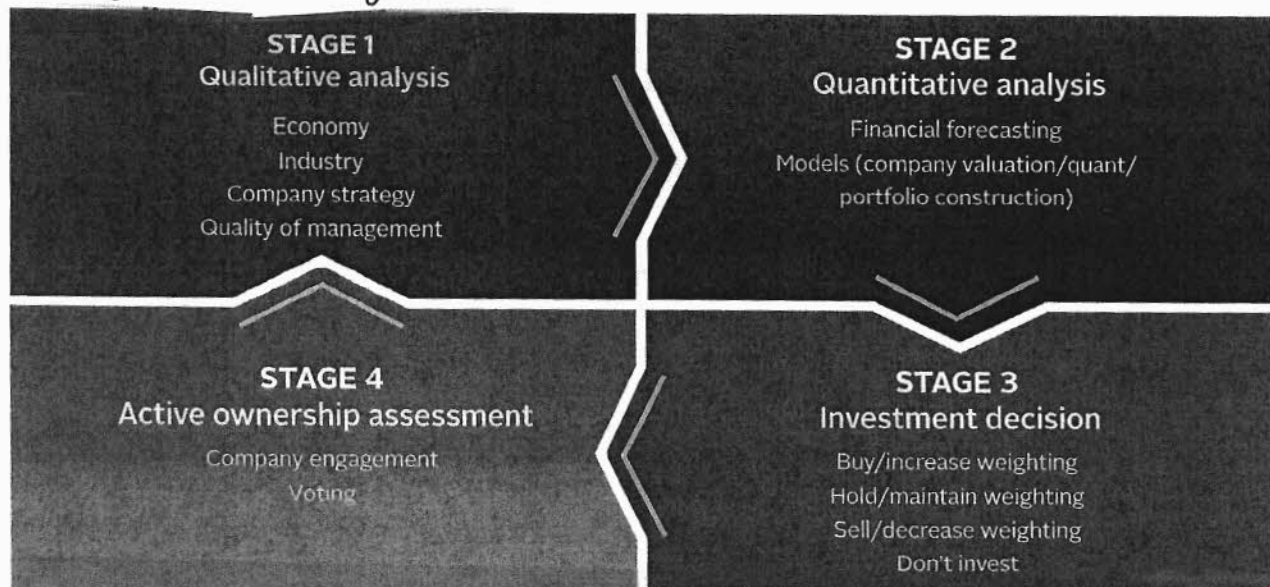


Figure -7

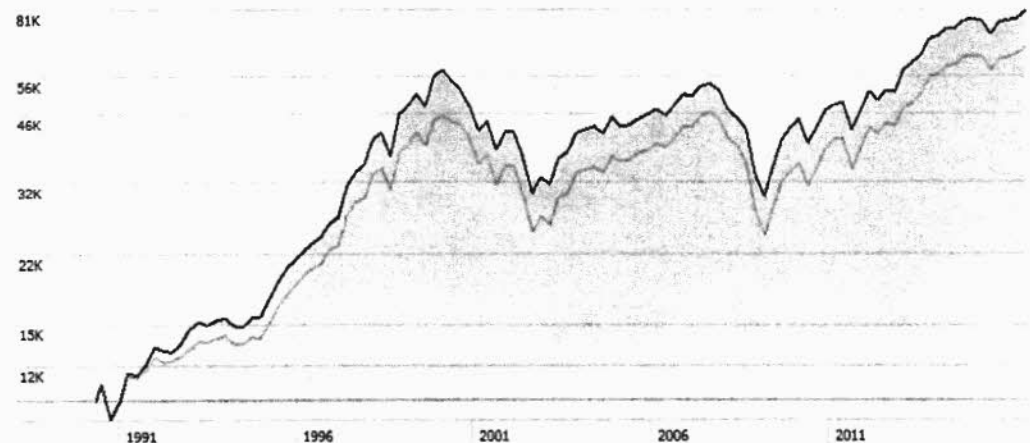
Avoid and advance
ESG investing styles

	Avoid	Advance		
	Screened	ESG	Thematic	Impact
Objective	Remove specific companies/industries associated with objectionable activities	Invest in companies based on ESG scores/rating systems	Focus on particular E, S or G issues	Target specific non-financial outcomes along with financial returns
Key considerations	Definition of and financial impact of screens	ESG data sources; active risk taken	Broad versus specific exposures	Report on progress toward outcomes
Examples	Screening out producers of weapons, fossil fuels and/or tobacco	Optimized ESG benchmarks; active strategies overweighting strong ESG performers	Environmental focus (low carbon or renewable energy); social focus (diversity)	Specific green bond or renewable power mandates

Sources: BlackRock Investment Institute and BlackRock Sustainable Investing, April 2018.

Figure -8

MSCI KLD 400 Index vs. S&P 500



Investment Name	Value
— MSCI KLD 400 Social PR USD (Market Return, USD, Pre-Tax)	80.41K
— S&P 500 PR (Market Return, USD, Pre-Tax)	65.88K

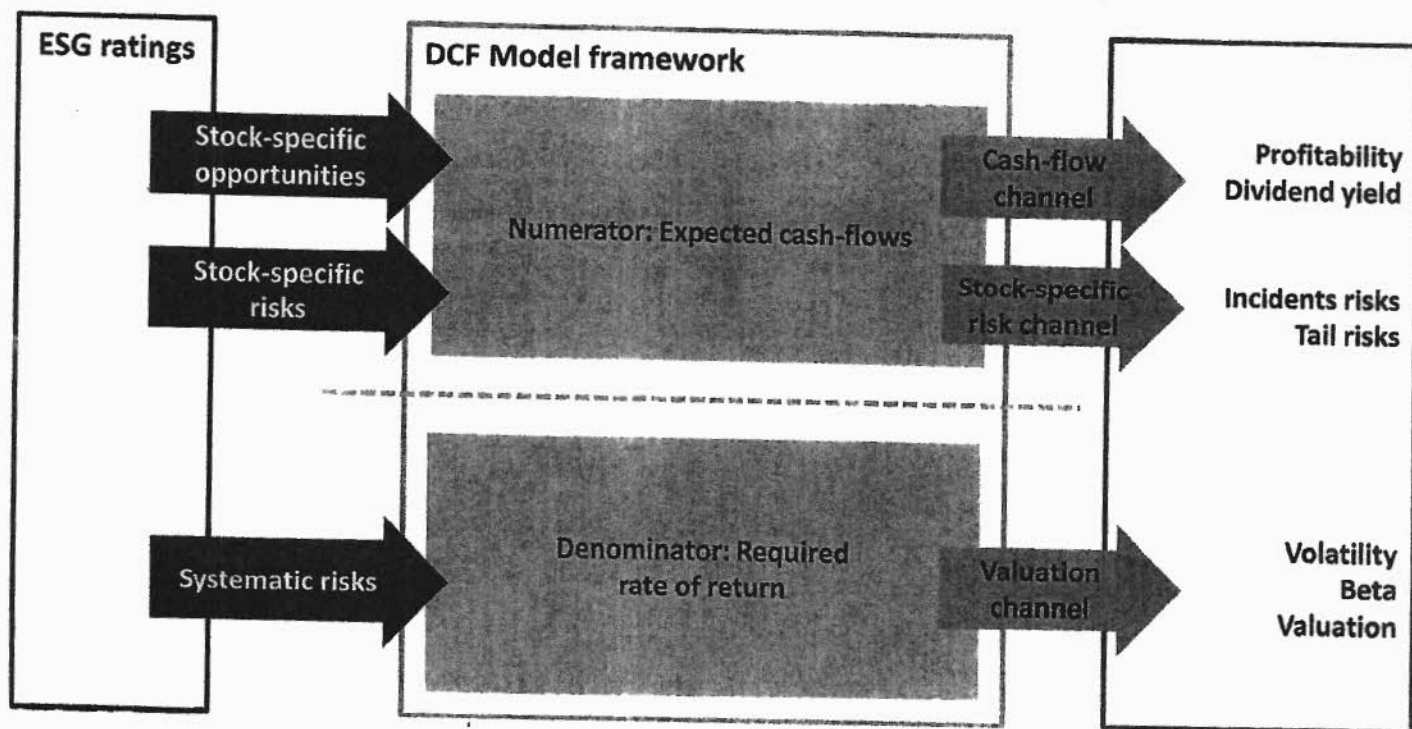
		MSCI KLD 400 %	S&P 500 %
Since inception	4/30/1990-9/30/2016	8.21	7.40
The 1990s	4/30/1990-12/31/1999	19.62	16.73
The 2000s	1/1/2000-12/31/2009	-2.76	-2.72
The 2010s	1/1/2010-9/30/2016	9.82	10.36
Inception to 2007 peak	4/30/1990-9/30/2007	10.18	9.21
2007 peak to present	10/1/2007-9/30/2016	4.50	3.97
Financial crisis bear mkt	10/1/2007-2/28/2009	-38.40	-40.33
Mkt recovery to present	3/1/2009-9/30/2016	15.34	15.32
Trailing 10 years	10/1/2006-9/30/2016	5.23	4.96

Source: Morningstar Direct. Data as of 9/30/16.

Figure - 9

RESEARCH METHODOLOGY

Step 1: Understand channels from ESG to financial values



MSCI

Figure - 10 (a) CASH-FLOW CHANNEL

The cash-flow transmission channel can be summarized as follows:

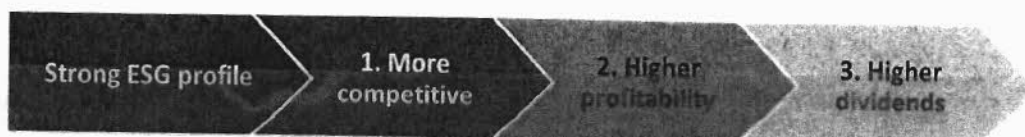


Figure 10- (b) IDIOSYNCRATIC RISK CHANNEL

The second company-specific transmission channel relates how well high ESG-rated companies manage their business and operational risks. Their stock prices typically have shown lower idiosyncratic tail risk, as outlined below:

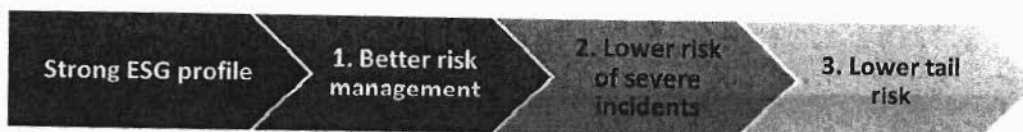


Figure 10-6c)

VALUATION CHANNEL

Eccles (2011), El Ghoul et al. (2011) and Gregory et al. (2014) argue that a strong ESG profile leads to higher valuations through the following transmission process:

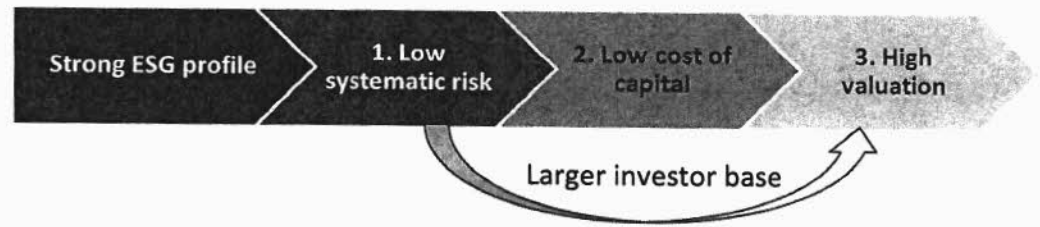


Table-1 Calvert Research Sustainability Categories for Barron's 100

1.	Shareholders	Board Structure
	Shareholders	Business Ethics
	Shareholders	Accounting Policies
	Shareholders	Executive Compensation
	Shareholders	Stakeholder Relations
2.	Employees	Labor Relations
	Employees	Workplace Diversity
	Employees	Workplace Safety
3.	Customers	Data Security
	Customers	Product Safety
	Customers	Product Marketing
	Customers	Product Quality
4.	Planet	Environmental Policies, Reporting, & Systems
	Planet	Greenhouse Gas Emissions and Related Policies
	Planet	Energy Use, Energy Efficiency, and Renewable Energy
	Planet	Waste Management / Recycling
	Planet	Reduction / Elimination of Toxic Emissions and Hazardous Waste
	Planet	Product Environmental Impact and Lifecycle
	Planet	Environmental Supply Chain Impacts
	Planet	Biodiversity and Ecosystem Impacts
	Planet	Water Use
	Planet	Resource Efficiency
5.	Community	Human Rights and Supply Chain
	Community	Community Engagement
	Community	Animal Welfare
	Community	Food Sourcing

Table 2
ESG - Issues

Environment

GHG emissions

Air quality

Energy management

Fuel management

Water and wastewater management

Waste and hazardous materials management

Biodiversity impacts

Social Capital

Human rights and community relations

Access and affordability

Customer welfare

Data security and customer privacy

Fair disclosure and labeling

Fair marketing and advertising

Human Capital

Labor relations

Fair labor practices

Employee health, safety and wellbeing

Diversity and inclusion

Compensation and benefits

Recruitment, development and retention

Business Model and Innovation

Lifecycle impacts of products and services

Environmental, social impacts on core assets and operations

Product packaging

Product quality and safety

Leadership and Governance

Systemic risk management

Accident and safety management

Business ethics and transparency of payments

Competitive behavior

Regulatory capite and political influence

Materials sourcing

Supply chain management

Source: Sustainability Accounting Standards Board. www.sasb.org

Table-3
Sources—Studies

1. Harvard Business School (March 2015), entitled, "Corporate Sustainability: First Evidence on Materiality."
2. The Oxford/Harvard Study (July 2017), entitled, "Using Survey Data from a Sample of Senior Investment Professionals."
3. McKinsey & Company Study (June 2016), entitled, "Sustaining Sustainability: What Institutional Investors Should Do Next on ESG."
4. PRI (Principles for Responsible Investment) (September 2016), entitled, "A Practical Guide to ESG Integration for Equity Investing."
5. Calvert-Serafein Study Series (June 2016), entitled, "The Financial and Societal Benefits of ESG Integration."
6. Vert Asset Management Study (January 2017), entitled, "Sustainable Investing: 'From Niche to Normal'."
7. BlackRock (May 2018), entitled, "Sustainable Investing: A 'Why Not' Moment."
8. Russell Investments (February 2018), entitled, "Materiality Matters."
9. MSCI (November 2017), entitled, "Foundations of ESG Investing."
10. TruValue Labs (May 2018, updated from November 2017), entitled, "Performance Test of Insight, ESG Momentum and Volume Signals."