**Personal Financial Satisfaction Index (PFSi) Defined**

The Personal Financial Satisfaction Index (PFSi) is the result of two component sub-indexes. It is calculated as the difference between the Personal Financial Pleasure Index and the Personal Financial Pain Index. These are in turn composed of four equally weighted factors, each of which measure the growth of assets and opportunities, in the case of the Pleasure Index, and the erosion of assets and opportunities, in the case of the Pain Index.

**Methodology**

To construct the indices each component was first normalized by its own standard deviation prior to July 2013. The factors were then individually modified to an average value of 50 over the period up to July 2013. The financial pleasure index and the financial pain index each equally weight the individual component factors.

**Fourth Quarter 2019 PFSi Summary**

The PFSi measured 40.2 in the Fourth Quarter of 2019. This is an all time record; the index is 4.0% above the prior record of 38.6, which occurred in 2019 Q1. It reflects an 8.2 point (25.6%) increase from one year ago, and a 2.9 point (7.8%) increase from the prior quarter.

To recap PFSi history, its low point was 2011 Q3; from there it gained about 3 points per quarter until the Fourth Quarter of 2015. In that period the biggest contribution to its gain was a reduction in loan delinquencies, followed by a reduction in inflation. The next two factors were a reduction in underemployment and an increase in job openings per capita. Next were gains in the PFSi Market 750 index.

Between 2015 Q4 and 2017 Q1 the index bounced down and up. Since then it has gained about 2.2 points per quarter, taking account of 3 quarters with modest weakening. Three factors are in close contention for leading these gains: gains in the PFSi 750 Market index, increases in job openings and reductions in loan delinquencies. The next most important factor has been reduction in inflation.

![PFSi Historical Measurement](chart.png)
The current year over year advance of the index was driven by the 19.2 point (23.9%) gain in the PFS 750 Market Index, coupled with the 10.4 point (23.1%) drop in inflation. It was also supported by a 6.1 point (19.0%) decline in loan delinquencies and a 3.7 point (11.0%) drop in underemployment and a 2.7 point (4.0%) gain in home equity. Offsetting these factors were a 4.6 point (5.3%) decline in job openings, a 3.7 point (7.1%) decrease in the CPA outlook, and a 1.1 point (2.5%) increase in taxes.

Compared with the last quarter the net index increased 2.9 points (7.8%). The most important factor in this advance was the 9.1 point (10.1%) increase in the PFS 750 index, followed by a 1.6 point (5.0%) decline in underemployment, and a 1.4 point (5.1%) drop in loan delinquencies. A 0.9 point (1.2%) increase in job openings also contributed to the gain. Offsetting these gains were a 0.9 point (2.8%) gain in inflation, a 0.2 point (0.5%) increase in taxes and a 0.1 point (0.1%) decrease in home equity.

Fourth Quarter 2019 Personal Financial Pleasure Index Top-Line Summary

The Personal Financial Pleasure Index, at 74.9, is 3.4 points (4.8%) above the prior year and 2.5 points (3.4%) up from the prior quarter.

The increase from the prior year was driven by a 19.2 point (23.9%) increase in the PFS 750 Market index, with a 2.7 point (4.0%) increase in home equity also contributing. However, a 4.6 point (5.3%) drop in job openings and a 3.7 point (7.1%) reduction in the CPA Outlook offset the gains somewhat.

The strongest gain in the quarterly comparison was 9.1 points (10.1%) by the PFS 750 Market, followed by 0.9 points (1.2%) for job openings. Home equity declines 0.1 points (0.1%), and the CPA Outlook was flat.
Fourth Quarter 2019 Personal Financial Pleasure Index Detailed Summary

PFSi Market 750 Market Index: This factor has made the largest contribution to the Pleasure Index from 2009 q4 to the present, with the exception of only 2 quarters (Q4 2018 and Q3 2015). It stands at 99, up 19.2 points (23.9%) from the year ago figure, to another all time high. It is also up 9.1 points (10.1%) from the Q3 level. It’s 7.2% above its last record level, which occurred in 2018 Q3.

2019 was by most accounts and extremely good year for the stock market. It was the best year since 2013, with very comparable returns. Key points for a discussion that goes beyond the overall averages:

1. For context, in an average 12 month period the PFS 750 Market index has gained 7 to 9 percentage points.
2. Part of the gains in 2019 simply recovered the 9.1% decline experienced in 2018. It was a good but less unusually good year if you subtract 9.1%. However the current PFSi Market 750 reading is just 7.2% above the highest value the index reached in 2018.
3. Interest rates have a strong influence on the stock market, and while the Fed increased interest rates 4 times in 2018, ending at 2.5% (and probably contributing to the sell off at the end of the year), it reversed course and decreased them 3 times in 2019.
4. The tech sector accounted for huge gains. According to the S&P Dow Jones Indices, together Apple and Microsoft accounted for almost 15% of the gains made by the S&P 500. Clearly they accounted for a lower percentage of the PFSi 750 Market index, but they were still big contributors. Facebook, Alphabet and Amazon were also strong gainers, as were semiconductor companies.
5. Overall market valuation ratios are more than 10% above long term averages of price to earnings, although the free cash flow yields and the comparison of earnings yields to 10 year treasuries are not so out of line.
6. The strongest performing sectors, after Information Technology, were Consumer Discretionary and Real Estate for the 12 month comparison. In the fourth quarter health care gains actually beat out information technology.
7. The weakest sector in the annual comparison, the only one showing a small loss, was energy. It was also among the sectors producing losses in the 3 month comparison, but consumer staples lost even more.

Real Home Equity per Capita: This factor’s current value, which is based on data issued for July, is 4.0% above the prior year value and virtually flat (down 0.1%) with the previous quarter level. It is only 5% below its late 2005 all-time high.

The changes in value have been due to increases in the market value of real estate, which for the most recent reading came in about 4.9% per annum. This has been sufficient to exceed increases in mortgages outstanding, which have been advancing at about 2.5% per annum.

According to the Case-Shiller 20 city composite
- As of July national home prices were 2.1% higher than the year-ago level.
- Since then the index (which has been released through September) has continued to grow at a similar rate, adding another 0.5%.
- As of July, the strongest gains were in the southwest (Phoenix and Las Vegas) and southeast (Charlotte and Tampa). Other pockets of relative strength included Minneapolis, which increased its YOY gain to 4.2%, and Detroit, which is closely behind at 4.1% YOY.
- Phoenix, Charlotte and Tampa reported the highest year-over-year gains in September. Phoenix led the way with a 6.0% year-over-year price increase, followed by Charlotte with a 4.6% increase and Tampa with a 4.5% increase.
Job Openings per Capita: The current reading is 5.3% below the prior year reading, but 1.2% above the previous quarter level. The Fourth Quarter index is based on October data.

Total nonfarm employment was almost 152 million in October, and 2.1 million new jobs were added in 12 months. There were almost 7.3 million job openings, but only 5.9 million unemployed in October; openings thus exceed job seekers.

In comparison to year ago levels, the job openings level decreased for total private (-433,000 or 6.2%), but increased 107,000 (16.8%) for government. The most substantial declines in job openings were in retail trade (214,000 or 19.8%) and professional and business services (180,000 or 13.2%). There were more modest employment gains in transportation, warehousing and utilities, construction, wholesale trade, durable goods manufacturing, educational services, and arts, entertainment and recreation.

Regionally, job openings fell in all areas, most drastically in the Midwest (131,000 or 7.3%), followed by a drop of 84,000 or 6.4% in the West.

AICPA CPA Outlook Index: The current reading is 7.1% lower than the prior year and flat with the previous quarter. The survey was conducted from October 31 to November 20.

1. The recent low point for this index occurred in Q1 2016. The all time high of the series was in early 2000. The index is 33% lower than its early 2000 peak.
2. Compared with the year ago index, all components show declines, strongly led by US Economic Optimism and Revenue, closely followed by Organization Optimism, Expansion Plans and Profits.
3. Compared with the prior quarter, the US Economic Outlook recovered somewhat, and to a minor extent so did Employment and Organization Optimism. However, non IT Capital Spending ticked down, and to a minor extent so did Expansion Plans and Profits.
4. The strongest factors in the level of the Q4 2019 index (as opposed to changes) are by IT Spending followed by Revenue. These have been the strongest factors since Q3 2018.
Personal Financial Pleasure Index Components Defined
Measuring the positive factors impacting the economy, the Personal Financial Pleasure Index combines the following four economic factors.

- **PFS 750 Market Index** – This AICPA proprietary stock index is comprised of the 750 largest companies trading on the US Market excluding ADRs, mutual funds and ETFs, adjusted for inflation and per capita.

- **AICPA Outlook Index** – This broad-based composite index captures the expectations of CEOs, CFOs, Controllers, and other CPA executives for the economy, and their plans for a breadth of indicators of economic activity within their own organizations. The composite measures the following factors equally: US economy optimism, organization optimism, business expansion, revenues, profits, employment, IT spending, other capital spending, training and development and Plans for spending on employee training and development over the next 12 months.

- **Real Home Equity per Capita** – This factor is a calculation of the Market Value of Real Estate, Households and Nonprofit Organizations, less the Home Mortgage Liability. Both are published by the Board of Governors of the Federal Reserve System, deflated by the Personal Consumption Expenditures Price Index and divided by the Civilian Non-institutional Population.

- **Job Openings per Capita** – Factor is a calculation of total non-farm job openings, published by the Bureau of Labor Statistics, divided by the Civilian Non-institutional Population.

Fourth Quarter 2019 Personal Financial Pain Index Top-Line Summary

Pain index at 34.7 is 4.8 points (12.1%) lower than the prior year and 0.5 point (1.3%) below the preceding quarter.

*For the year ago comparison, all factors except taxes declined, led by inflation (10.4 points, 23.1%), followed by loan delinquencies (6.1 point, 19.0%). Underemployment registered a 3.7 point (11.0%) decline. Taxes rose 1.1 points (2.5%).*

*The smaller quarterly decline resulted from declines in underemployment (1.6 points, 5.0%) and loan delinquencies (1.4 points, 5.1%) being offset by increases in inflation (0.9 points, 2.8%) and taxes (0.2 points, 0.5%)*

Fourth Quarter 2019 Personal Financial Pain Index Detailed Summary

**Delinquencies on Loans**: This factor’s current level is 19.0% lower than in the prior year, and 5.1% lower than the previous quarter’s level. The improvements are heavily weighted towards mortgages.

*The peak delinquency rate for mortgages was 11.26% in the spring of 2010, and the peak for all loans was 7.5% at the end of 2009. The current reading of 2.45% delinquencies on mortgages is still above the 2.1% that was typical between 1994 through 2003.*

**Underemployment**: This factor, registering 30, is 11.0% lower than the prior year level and 5.0% below than the last quarter level. In comparison, its peak value was 84.3 corresponding to 17.1% in the fourth quarter of 2009 (versus the
current 6.92%). It is now 19.6% below its average value in the two years before the great recession, and is in fact a record low. This factor maintained levels close to the current reading in 1999 and 2000, but never registered quite this low.

Like most economic measures, unemployment is worse in some regions than in others. In August:

- The states with the lowest unemployment rates were Vermont, South Carolina, Utah and North Dakota.
- The rates in 13 states, South Carolina and Utah (both 2.4%), Colorado (2.6%), Alabama (2.7%), Maine (2.8%), Florida (3.1%), Georgia (3.3%), Illinois (3.8%), California and Oregon (both 3.9%), Washington (4.4%) and Alaska (6.1%) are at all time lows.
- 24 states had unemployment rates below the national average; Rhode Island was at the average and 23 (including the District of Columbia) were above it.
- Nationally, the unemployment rate fell by 0.2 percentage points from the year ago level. Eighteen states, led by Alabama (down 1.1 points), Colorado (1 point), South Carolina and Utah (each 0.8), had larger reductions. Twenty-four states, capped off by Mississippi (which increased 0.9 points), did less well.
- Unemployment was highest in Alaska, followed by Mississippi and the District of Columbia. It was lowest in Vermont, South Carolina and Utah.
- Unemployment was most severe in agriculture and lowest in information.

**Inflation**: Our blended inflation measure is 1.5% for the Fourth Quarter, versus 1.9% a year ago and 1.4% last quarter. Please note that the Federal Reserve’s target for core inflation (which eliminates the contributions of food and oil) is 2%; core inflation is currently at 1.66%. In terms of the PFSi inflation index, the current index value is 35, down 23.1% from the year ago level but up 2.8% from the Q3 level.

Inflation is the most volatile factor contributing to the PFSi, and with absolute levels so low, small changes result in large percent gains. The Q4 pain index relies on the November level.

**Personal Taxes**: The personal taxes index increased 1.1 points (2.5%) from the year-ago level and 0.2 points (0.5%, lost in rounding from the prior quarter.

Personal tax rates plunged more than 200 basis points to under 9.5% in mid-2009, and they have been increasing unevenly since then. The current level is 11.7%. Going back as far as 1994, the highest levels for personal taxes were 14% to 14.5% from late 1999 to mid-2001.
Personal Financial Pain Index Components Defined

The Personal Financial Pain index is a measurement of the following negative economic factors:

- **Inflation** – This factor is comprised of 95 percent annual change in the Personal Consumption Expenditures Price Index and 5 percent annual change in the Consumer Price Index for Fuel Oil and Other Fuels, as published by the BLS.

- **Personal Taxes** – This factor uses Bureau of Labor Statistics statistics on income tax, tax on realized net capital gains, taxes on personal property, payments for motor vehicle licenses, and several miscellaneous taxes, licenses, and fees. Social security and Medicare taxes are excluded, as are taxes on real property, sales taxes, and certain penalty taxes. Personal current taxes are measured on a payments basis (i.e., when paid) except for withheld taxes (largely on wages and salaries) which are measured on an accrual basis.

- **Delinquencies on Loans** – Taken from data published by the Board of Governors of the Federal Reserve System, this factor is calculated as 75 percent delinquency rate on single family residential mortgages and 25 percent the delinquency rate on all loans and all commercial banks, both

- **Underemployment** – This BLS-calculated factor is a combination of full title total unemployed numbers, all marginally attached workers, and total number of workers employed part-time for economic reasons.

![Pain Factors History of Values](image-url)
<table>
<thead>
<tr>
<th>Component</th>
<th>4Q18 Data</th>
<th>3Q19 Data</th>
<th>4Q19 Data</th>
<th>Change vs. Year</th>
<th>Change vs. Quarter</th>
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<tbody>
<tr>
<td>Net Index</td>
<td>32.0</td>
<td>37.3</td>
<td>40.2</td>
<td>8.2</td>
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<td>Pleasure</td>
<td>71.5</td>
<td>72.4</td>
<td>74.9</td>
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<td>PFS 750 Market Index ($ trillion, index)</td>
<td>27 80 31 90 34 99</td>
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<td>19.2</td>
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<td>CPA Outlook (index)</td>
<td>76 52 72 48 72 48</td>
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<td>0.0</td>
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<td>Home Equity ($ trillion, index)</td>
<td>21.1 68 22.2 71 22.2 71</td>
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<td>2.7</td>
<td>(0.1)</td>
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<td>Job Openings (millions, index)</td>
<td>7.6 86 7.2 80 7.3 81</td>
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<td>(4.6)</td>
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<td>Pain (subtracted)</td>
<td>39.5</td>
<td>35.1</td>
<td>34.7</td>
<td>(4.8)</td>
<td>(0.5)</td>
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<td>Underemployment (% index)</td>
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<td>(3.7)</td>
<td>(1.6)</td>
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<td>Inflation (% index)</td>
<td>1.9 45 1.4 34 1.5 35</td>
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<td>(10.4)</td>
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<td>Taxes (% index)</td>
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<td>Loan Delinquencies (% index)</td>
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<td>(6.1)</td>
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