GAAP vs. Street Earnings: Which One Has More Predictive Power Over Future GDP Growth?

Meng Huang
University of Toledo

Keith Walker
University of Toledo

Chao Wen
Ohio Northern University

Previous research shows that aggregate GAAP earnings growth helps predict future U.S. GDP growth. Unlike GAAP earnings, street earnings are a non-standardized measure that often includes more relevant and persistent components. This study expands prior research by examining the role of street earnings in forecasting GDP and comparing their predictive power to GAAP earnings. Our findings confirm that, like GAAP earnings, street earnings can predict future GDP growth. More importantly, street earnings have stronger predictive content than GAAP earnings, providing more accurate forecasts over longer time periods.

Keywords: GAAP earnings, street earnings, GDP forecast

INTRODUCTION

Gross Domestic Product (GDP) is one of the most widely used indicators of a country's economic output and is considered the most important variable for analyzing the overall state of the economy. Policymakers and economists rely on GDP forecasts to assess whether the economy is expanding or in recession and use these forecasts extensively when shaping monetary and fiscal policy. Business leaders use GDP forecasts to guide their production, investment, and expansion decisions, while investors analyze them to identify growing economies and markets. Given the widespread reliance on GDP forecasts, there is strong demand for high-quality, accurate predictions.

Researchers have found that aggregate accounting information helps predict future GDP growth, but this discovery has only emerged in the last 10 years. For example, prior research has shown that aggregate earnings prepared under the Generally Accepted Accounting Principles (GAAP) contain predictive information for forecasting GDP growth (Konchitchki & Patatoukas, 2014a; Gaertner et al., 2020). This predictive power is linked to earnings' ability to capture economic news in a timely manner (Kausar & Park, 2024).

Managers, analysts, investors, and lenders often assess company performance using metrics beyond GAAP. The use of non-GAAP earnings has increased significantly over time, making these non-standard

earnings a widely accepted measure of firm performance (Black et al., 2018). These street earnings are often based on management press releases and exclude a variety of transitory and non-cash expenses (Bradshaw & Sloan, 2002). Street earnings include more relevant and persistent components, making them useful for predicting future performance. However, it is unclear if the excluded components also contain important economic information for forecasting GDP. Professional forecasters should incorporate publicly available and timely accounting earnings data into their GDP growth models. Therefore, it is important to study whether street earnings, widely used by market participants, have the same or greater predictive power for future GDP.

This paper builds on Konchitchki and Patatoukas (2014a) by investigating whether aggregate street earnings have strong predictive power for GDP forecasts and whether their predictive content is as strong as GAAP-based aggregate earnings. Since street earnings are not subject to GAAP's strict regulations and focus more on persistent components of earnings, we predict that street earnings will not only contain predictive information for GDP growth but will also have greater predictive power than GAAP earnings. Consistent with our hypotheses, we find that aggregate street earnings growth significantly predicts future GDP growth. Moreover, street earnings have greater predictive power than GAAP earnings. Models based on street earnings produce higher fitted values compared to those using GAAP earnings, and street earnings can forecast future GDP over a longer time horizon than GAAP earnings.

This study contributes to both accounting and economics research by showing that accounting information helps predict future GDP growth and play an important role in macroeconomics. We build on the work of Konchitchki and Patatoukas (2014a) by testing the predictive power of aggregate earnings growth in a non-GAAP setting. We find a new and widely used accounting indicator, street earnings, with a higher predictive content than the GAAP earnings proposed in the prior research. Additionally, we expand research on GAAP and street earnings by showing that street earnings provide valuable predictive information from a new perspective.

We structure our paper as follows: section 2 summarizes prior literature and develops our hypotheses, section 3 describes our sample and research methodology, section 4 presents our results, and section 5 concludes.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

BEA and Professional Forecasters

The Bureau of Economic Analysis (BEA) is a key agency within the U.S. Federal Statistical System, responsible for providing critical economic data, including the country's gross domestic product (GDP). According to the BEA (2014), GDP estimates are released in three stages each quarter. The advance estimate is published before the end of the first month after the reference quarter. The second estimate follows near the end of the second month, and the third estimate is released near the end of the third month. Beyond these three initial estimates, the BEA also conducts annual, benchmark, and comprehensive revisions to refine GDP figures.

For estimating the corporate profit component of GDP, the BEA relies on different data sources depending on the time frame. For current quarters and the most recent year, the BEA references the Quarterly Financial Report (QFR) from the U.S. Census Bureau. These reports are based on a sample of companies selected by asset size and are typically released in the third or fourth month after the reference quarter. For annual estimates (excluding the most recent year), the BEA uses taxable income data from the IRS. Audited preliminary taxable income is available with a two-year lag, while final audited data is published with a three-year lag. To gather forecasts of future GDP growth, the BEA surveys macroeconomic forecasters. Survey questionnaires are distributed at the end of the first month after the reference quarter, with responses due by the middle of the second month (Landefeld et al., 2008; Konchitchki & Patatoukas, 2014a).

GDP and GDP Forecast

GDP is widely considered the most important indicator of a country's economic growth. Official GDP estimates play a crucial role in economic decision-making. Government institutions use them to shape monetary policy and set interest rates, while businesses rely on them for production planning, investment decisions, and workforce management. Investors also analyze GDP data to compare markets and identify growth opportunities. Despite its significance, the BEA releases quarterly GDP estimates on a delayed schedule, with multiple revisions following the initial "advance" estimate. This lag and uncertainty drive demand for timely and accurate analyst forecasts.

To generate accurate GDP forecasts, analysts must use variables that capture economic information in a timely manner. Early research focuses on the predictive power of financial market variables, such as stock returns, Treasury bill yields, and yield spreads, in forecasting GDP growth. While these variables enhance predictive accuracy, their significance diminishes within a year (Ang et al., 2005; Estrella & Mishkin, 1996; Fama, 1981; Harvey, 1989).

More recent studies show that financial accounting earnings prepared under both U.S. GAAP and international financial reporting standards (IFRS) provide incremental economic information for forecasting GDP compared to examining financial variables alone (Konchitchki & Patatoukas, 2014a, 2014b; Gaertner et al., 2020; Kausar & Park, 2024). Konchtchki and Patatoukas (2014a) argue that accrual-based earnings contain better information on future cash flows (e.g., Dechow et al., 1998) compared to cash-based earnings. Similarly, Kausar and Park (2024) find that the fair-value adjusted accruals of IFRS better reflect forward-looking economic information compared to U.S. GAAP and cash flows.

GAAP Earnings and Street Earnings

Generally Accepted Accounting Principles (GAAP) are a set of accounting rules issued and revised by the Financial Accounting Standards Board (FASB) for preparing, presenting, and reporting financial statements in the U.S. The U.S. Securities and Exchange Commission (SEC) requires U.S. public companies to follow GAAP in preparing their financial statements, ensuring the statements are complete, consistent, and comparable. While GAAP is primarily used in the U.S., most other countries follow International Financial Reporting Standards (IFRS).

Managers, analysts, investors, lenders, and other stakeholders often evaluate firm performance using metrics beyond GAAP earnings. Their goal is to highlight a firm's core operations by reporting an adjusted earnings figure that signals future performance. Unlike GAAP earnings which are measured following a uniform framework for financial transparency, street earnings refer to a non-standardized measure of a company's earnings. Street earnings are usually reported by financial analysts, and they are typically derived from GAAP earnings but exclude components deemed less relevant to long-term performance, such as transitory or non-cash transactions. As a result, street earnings aim to capture a firm's persistent and recurring earnings. Over time, the reporting of street earnings has increased dramatically, and these non-standard earnings become a widely accepted measure of firm performance (Black et al., 2018). Due to the nature of street earnings focusing on persistent and recurring earnings, street earnings may have greater predictive power over future GDP than GAAP earnings.

Although intended to provide a clearer picture of future performance, street earnings may exclude useful economic information from GAAP earnings. For example, compensation data is used by BEA when calculating GDP estimates, but street earnings may exclude stock-based compensation expense in their calculations (Black et al., 2018). Their widespread use also raises concerns about potential investor misinterpretation. Companies often emphasize street earnings in communications with investors and analysts, downplaying one-time negative events and favoring a number higher than GAAP earnings (Bradshaw & Sloan, 2002). If there is no relevant economic information for GDP growth contained in the excluded earnings components, then street earnings would have similar predictive power to GAAP earnings. Their predictive power would be lower than GAAP earnings if the excluded components reflected relevant economic information. Therefore, this paper constructs tests comparing the relative predictive power of GAAP and street earnings at the macro level.

Hypothesis Development

Prior research supports the idea that street earnings contain valuable economic information. Studies show that street earnings have a stronger correlation with stock returns than GAAP earnings, and analysts who rely on street earnings tend to make more accurate earnings forecasts (Bradshaw & Sloan, 2002; Bratten et al., 2023). Additionally, Bhattacharya et al. (2003) find that investors perceive street earnings as more informative than GAAP earnings. Building on these findings, we hypothesize that the economic information embedded in aggregate street earnings has predictive power for forecasting GDP growth.

H1: *Aggregate street earnings have predictive value for forecasting future GDP growth.*

Accurate GDP forecasts should contain variables with the ability to reflect economic information in a timely manner. Even though it is uncertain if the earnings components excluded during the calculation of street earnings contain economic information relevant to GDP growth, a variable with a clearer signal-to-noise ratio should produce a more accurate forecast. Management and analysts argue that by removing transitory and non-cash components from GAAP earnings, street earnings contain a clearer signal for future firm performance. Therefore, we hypothesize that aggregate street earnings should have greater predictive power when forecasting GDP growth compared to aggregate GAAP earnings.

H2: *Aggregate street earnings have a greater predictive power for forecasting GDP growth than aggregate GAAP earnings.*

SAMPLE AND RESEARCH DESIGN

Sample Selection

Our analysis uses quarterly aggregate data. For macroeconomic data, we use BEA's advance, third, and most recent estimates of nominal GDP growth from the Real-Time Data Set of the Federal Reserve Bank of Philadelphia. The quarterly GDP growth is converted into year-over-year growth. Treasury yield and term spread are based on the 1-Year and 10-Year Treasury Constant Maturity Rates from the Federal Reserve Board's H15 Report. Stock return data come from the CRSP Stock Market Indexes database.

We use GAAP earnings and sales data from the Compustat North America quarterly database and street earnings and sales data from the I/B/E/S Summary History database. Accounting data are reported at the company-quarter level and must be aggregated to create quarterly data. To match quarterly earnings with GDP data, our sample includes only firms with fiscal quarter-ends in March, June, September, and December. Earnings are grouped based on calendar quarters. Another requirement for including companies in the aggregate earnings calculation is the timing of their earnings reports. Macro forecasters receive survey questionnaires at the end of the first quarter after each calendar quarter and return them to the BEA within 15 days (or 45 days after the quarter ends). To ensure forecasters have access to accounting data before submitting their surveys, we include only companies that release their quarterly or annual reports within 40 days of the fiscal quarter-end for the aggregate GAAP earnings calculation and those that announce earnings within 40 days for the aggregate street earnings calculation. Appendix A.1 and A.2 provide more information regarding the timing of the forecast survey and the differences between fiscal and calendar quarters.

Our sample includes 60 quarters, covering the period from Q1 2004 to Q4 2018. Earnings growth is measured as the year-over-year change in quarterly earnings. Since street earnings and sales data became widely available in the I/B/E/S database in 2003, we start the sample in Q1 2004. COVID-19 impacted the U.S. economy in early 2020, so the GDP forecast period in this paper ends in 2019. The main test uses year-over-year quarterly GDP growth, making Q4 2018 the last quarter in the sample.

Definition of Aggregate Earnings Growth

Our measure of aggregate earnings growth mostly follows Konchitchki and Patatoukas (2014a). Aggregate earnings (*AE*) is defined as equally weighted quarterly net income scaled by aggregate sales in

each quarter to avoid the negative denominator problem. Aggregate earnings growth (*AEG*) is the year-over-year change in the aggregate earnings. Company's quarterly net income and sales are winsorized at the 1% level before being included in the aggregate calculation. The net income [IBQ] and sales [REVTQ] used in the GAAP earnings (*AE_GAAP*) and GAAP earnings growth (*AEG_GAAP*) calculation are from Compustat, and the net income [NET] and sales [SAL] used in the street earnings (*AE_Street*) and street earnings growth (*AE_Street*) calculation are from I/B/E/S.

Research Design

In the main tests, we use the Ordinary Linear Regression (OLS) analysis to investigate the impact of aggregate earnings growth (*AEG*) on the future GDP growth forecast (*GDPGF*). The research models are built as follows:

$$GDPGF_{q+k} = \alpha_k + \beta_{k1} AEG\_GAAP_q + Ctrls + \varepsilon_{q+k} \quad (1)$$

$$GDPGF_{q+k} = \alpha_k + \beta_{k2} AEG\_Street_q + Ctrls + \varepsilon_{q+k} \quad (2)$$

where $GDPGF_{q+k}$ is BEA's third estimate of GDP growth for quarter $q + k$, and $k = \{1, 2, 3, 4\}$, AEG_GAAP_q is aggregate GAAP earnings growth for quarter q, and AEG_Street_q is aggregate Street earnings growth for quarter q. *Ctrls* represent the control variables that are used in Konchitchki and Patatoukas (2014a): *GDPGA* is the advanced estimates of GDP growth in quarter q; *Return* is buy-and-hold monthly stock market return measured over a three months period leading to one month after quarter q ends; *Yield* is the yield on the one-year constant maturity Treasury bill measured one month after quarter q ends; and *Spread* is the difference between the ten-year and one-year constant maturity Treasury bond yield measured one month after quarter q ends.

The sign and significance of β_{k1} and β_{k2} represent whether GAAP earnings growth and Street earnings growth have significant predictive power over future GDP growth. To show whether GAAP or Street earnings growth has higher predictive power, we compare the magnitude and significance of β_{k1} and β_{k2}, and also use the Stata module FITSTAT to compare the fitness of equations (1) and (2). The FITSTAT command in Stata is a post-estimation command used to calculate different measures of model fit. It can also compare fit measures between two models (Long and Freeze, 2000). In our tables, we report adjusted R^2, Akaike's Information Criterion (AIC), and Bayesian Information Criterion (BIC) for each model. We also include FITSTAT's conclusion on which model, between equations (1) and (2), has a better fit.

To address the heteroskedasticity and autocorrelation issues, we also follow Konchitchki and Patatoukas (2014a) and report the OLS regression results based on the Newey and West (1987) standard errors. We perform two additional tests based on the same equations. First, we extend the GDP forecast period to see how far earnings can significantly predict GDP. Second, instead of the third estimates, we use the most recent estimates for GDP growth forecasts.

EMPIRICAL RESULTS

Descriptive Statistics

Table 1 presents the summary statistics and correlations of the main variables. Refer to section 3.3 for variable definitions. Panel A shows that our sample includes 60 year-quarter observations. The average aggregate GAAP earnings growth (*AEG_GAAP*) is 0.002, with a standard deviation of 0.021. Similarly, aggregate Street earnings growth (*AEG_Street*) has a mean of 0.002 but a smaller standard deviation of 0.011.

Panel B displays the correlation results, showing that both GAAP and Street earnings growth are significantly related to GDP growth in the next quarter, and Street earnings growth has a stronger correlation and a lower p-value. These results provide initial evidence to support our hypothesis that while both GAAP and Street earnings growth help predict future GDP, Street earnings growth has a higher predictive power.

In tables 1 to 4, numbers in parentheses are t-statistics, and *, **, and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels, respectively, based on two-tailed tests.

TABLE 1
DESCRIPTIVE STATISTICS

Panel A. Summary Statistics

Variable	No. of Obs.	Mean	Std. Dev.	Minimum	Median	Maximum
AE_GAAP	60	0.069	0.017	-0.032	0.069	0.101
AEG_GAAP	60	0.002	0.021	-0.092	0.004	0.098
AE_Street	60	0.093	0.012	0.056	0.093	0.118
AEG_Street	60	0.002	0.011	-0.035	0.003	0.029
GDPGA	60	0.178	0.079	-0.057	0.171	0.333
GDPGFq+1	60	0.176	0.079	-0.068	0.172	0.324
GDPGFq+2	60	0.174	0.076	-0.068	0.172	0.307
GDPGFq+3	60	0.172	0.075	-0.068	0.172	0.307
GDPGFq+4	60	0.171	0.074	-0.068	0.172	0.307
Return	60	0.016	0.084	-0.296	0.032	0.218
Yield	60	1.525	1.661	0.100	0.535	5.110
Spread	60	1.581	1.027	-0.380	1.655	3.330

Panel B. Pairwise Correlation

	AEG_GAAP	*AEG_Street*	*GDPGFq+1*
AEG_GAAP	1		
AEG_Street	0.819***	1	
GDPGFq+1	0.320**	0.578***	1

GAAP vs. Street Earnings Growth and Future GDP Growth

Table 2 presents our main results comparing GAAP and Street earnings in predicting future GDP growth, based on equations (1) and (2). Panel A shows the prediction of one-quarter ahead GDP growth, first without control variables, then with contemporary advanced GDP estimates as controls, and finally with all control variables including stock returns, yields, and term spreads. The results consistently show that both aggregate GAAP earnings growth (*AEG_GAAP*) and aggregate street earnings growth (*AEG_Street*) significantly predict one-quarter ahead GDP growth. When comparing the coefficients of the two earnings, *AEG_Street* shows a larger predictive magnitude than AEG_GAAP. Additionally, adjusted R^2, AIC, and BIC outputs from the Stata FITSTAT model indicate that equations using *AEG_Street* are better fitted than those using *AEG_GAAP* for predicting GDP growth. Panel B examines the prediction of GDP growth two to four quarters ahead. The results are similar to those in Panel A, showing that both GAAP and Street earnings growth significantly predict future GDP. However, *AEG_Street* again shows higher predictive power than *AEG_GAAP*.

TABLE 2
AGGREGATE GAAP VS. STREET EARNINGS PREDICTING FUTURE GDP

Panel A. Earnings predicting one-quarter ahead GDP growth (DV = *GDPGFq+1*)

	(1) GAAP	(2) Street	(1) GAAP	(2) Street	(1) GAAP	(2) Street
AEG_GAAP	1.197**		0.853***		0.803***	
	(2.570)		(4.658)		(4.075)	
AEG_Street		4.130***		1.998***		2.031***
		(5.387)		(5.674)		(5.334)
GDPGA			0.871***	0.791***	0.868***	0.735***
			(17.964)	(16.202)	(12.249)	(9.948)
Return					0.062	0.048
					(1.240)	(1.032)
Yield					-0.002	0.003
					(-0.352)	(0.633)
Spread					-0.005	-0.004
					(-0.821)	(-0.643)
Intercept	0.175***	0.169***	0.020**	0.032***	0.030	0.043**
	(17.938)	(19.960)	(2.128)	(3.480)	(1.560)	(2.354)
No. of Obs.	60	60	60	60	60	60
AEG_Street - AEG_GAAP (chi2)	2.933*** (17.93)		1.146*** (15.36)		1.229*** (21.93)	
Adj. R2	0.087	0.322	0.861	0.877	0.859	0.880
AIC	-138	-156	-250	-258	-247	-256
BIC	-134	-152	-244	-251	-234	-244
Model (1) vs. (2)	very strong support for model (2)		strong support for model (2)		strong support for model (2)	

Panel B. Earnings predicting two, three, and four-quarter ahead GDP growth

	DV = GDPGFq+2		DV = GDPGFq+3		DV = GDPGFq+4	
	(1) GAAP	(2) Street	(1) GAAP	(2) Street	(1) GAAP	(2) Street
AEG_GAAP	1.294***		1.349***		0.891**	
	(5.268)		(4.649)		(2.456)	
AEG_Street		3.032***		2.996***		2.461***
		(6.338)		(5.077)		(3.390)
GDPGA	0.684***	0.494***	0.520***	0.338***	0.391***	0.224
	(7.735)	(5.316)	(4.981)	(2.946)	(2.997)	(1.588)
Return	0.177***	0.164***	0.325***	0.318***	0.400***	0.375***
	(2.834)	(2.814)	(4.404)	(4.422)	(4.325)	(4.245)
Yield	-0.001	0.005	-0.001	0.005	-0.001	0.004
	(-0.127)	(1.068)	(-0.162)	(0.802)	(-0.159)	(0.473)
Spread	-0.008	-0.006	-0.011	-0.008	-0.010	-0.008
	(-1.063)	(-0.785)	(-1.184)	(-0.896)	(-0.841)	(-0.763)
Intercept	0.062**	0.079***	0.092***	0.107***	0.111***	0.128***
	(2.571)	(3.439)	(3.230)	(3.778)	(3.119)	(3.678)

No. of Obs.	60	60	60	60	60	60
AEG_Street - AEG_GAAP (chi2)	1.737*** (17.96)		1.647*** (10.65)		1.569*** (7.13)	
Adj. R2	0.767	0.798	0.666	0.684	0.460	0.505
AIC	-220	-229	-200	-204	-174	-179
BIC	-208	-216	-188	-191	-161	-166
Model (1) vs. (2)	strong support for model (2)		Positive support for model (2)		Positive support for model (2)	

In the untabulated results, we follow Konchitchki and Patatoukas (2014a) and use OLS regression with Newey and West (1987) standard errors to correct for heteroskedasticity and autocorrelation. The regression coefficients remain the same as the OLS results, and the significance levels are consistent with our findings in Table 2.

The results in Panels A and B provide evidence supporting our hypotheses that both aggregate GAAP and street earnings growth predict future GDP growth for at least four quarters, but street earnings have stronger predictive power than GAAP earnings.

GAAP vs. Street Earnings Growth and Extended Future GDP Growth Forecast Window

To determine how far into the future earnings can predict GDP growth, we extended our prediction models with a longer forecast window. Table 3 presents the results for equations (1) and (2) predicting GDP growth ($GDPGF_{q+k}$) for $k = \{5, 6, 7, 8\}$. The results show that *AEG_GAAP* coefficients are not significant for any forecast window, while *AEG_Street* remains significant only at $GDPGF_{q+5}$. Combining these findings with the results from Table 2, we conclude that aggregate GAAP earnings growth predicts GDP growth up to four quarters ahead, while aggregate Street earnings growth extends to five quarters. This further supports our hypothesis that Street earnings have stronger predictive power for future GDP growth than GAAP earnings.

TABLE 3
AGGREGATE GAAP VS. STREET EARNINGS PREDICTING FUTURE GDP OVER EXTENDED PERIODS

	DV = GDPGFq+5		**DV = GDPGFq+6**		**DV = GDPGFq+7**		**DV = GDPGFq+8**	
	(1) GAAP	**(2) Street**	**(1) GAAP**	**(2) Street**	**(1) GAAP**	**(2) Street**	**(1) GAAP**	**(2) Street**
AEG_GAAP	0.713		0.093		-0.427		-0.359	
	(1.637)		(0.151)		(-0.683)		(-0.564)	
AEG_Street		1.949**		0.645		-0.928		-1.782
		(2.180)		(0.502)		(-0.710)		(-1.357)
GDPGA	0.328**	0.196	0.357	0.302	0.414*	0.469*	0.344	0.488*
	(2.092)	(1.128)	(1.611)	(1.210)	(1.836)	(1.850)	(1.498)	(1.915)
Return	0.299***	0.280**	0.310**	0.292*	0.336**	0.338**	0.155	0.196
	(2.694)	(2.573)	(1.976)	(1.865)	(2.110)	(2.119)	(0.955)	(1.226)
Yield	-0.002	0.002	0.002	0.003	-0.003	-0.005	-0.005	-0.008
	(-0.177)	(0.233)	(0.165)	(0.254)	(-0.224)	(-0.356)	(-0.351)	(-0.600)
Spread	-0.002	-0.001	0.026	0.025	0.035*	0.034*	0.041**	0.041**
	(-0.141)	(-0.063)	(1.301)	(1.297)	(1.722)	(1.689)	(1.987)	(2.054)

Intercept	0.109**	0.123***	0.045	0.053	0.023	0.019	0.026	0.007
	(2.558)	(2.857)	(0.749)	(0.858)	(0.384)	(0.301)	(0.425)	(0.115)
No. of Obs.	60	60	60	60	60	60	60	60
Adj. R2	0.211	0.239	0.040	0.044	0.067	0.068	0.068	0.094

Earnings Growth and Most Recent Estimates of Future GDP Growth

BEA estimates corporate profits using financial information released by the Census Bureau in the middle of the third month after the reference quarter. This timing falls between the second and third estimates of GDP, meaning the third estimates include more financial earnings data than the first estimates. However, the third estimates are not final, as BEA later applies annual adjustment, benchmark, and comprehensive adjustments to produce the most recent GDP estimates.

Since the third estimates incorporate more selected firms' financial accounting data, the predictive power of accounting earnings growth over these GDP estimates may be due to the availability of more complete financial earnings data. However, BEA primarily uses taxable income rather than financial accounting earnings for its annual GDP estimates. This raises the question of whether financial accounting earnings can still predict taxable income-based GDP, which is used in the most recent estimates after annual adjustments.

To address this, we aim to test the predictive power of aggregate accounting earnings growth over the most recent GDP estimates, providing further insight into its forecasting ability. In this section, we base our analysis on equations (1) and (2), but replace the dependent variable $GDPGF_{q+k}$ from the third estimates with BEA's most recent estimates of GDP growth. The most recent estimates are also collected from the Real-Time Data Set for Macroeconomists of the Federal Reserve Bank of Philadelphia. Table 4 shows that we consistently find that aggregate GAAP and Street earnings growth can predict future GDP growth, with most recent estimates, for four quarters, and untabulated results show that the results hold with Newey and West standard errors. Based on the FITSTAT model, *AEG_Street* consistently outperforms *AEG_GAAP* in the GDP growth forecasts.

TABLE 4
AGGREGATED GAAP VS. STREET EARNINGS PREDICTING FUTURE GDP (MOST RECENT ESTIMATES)

	DV = GDPGFq+1		**DV = GDPGFq+2**		**DV = GDPGFq+3**		**DV = GDPGFq+4**	
	(1) GAAP	**(2) Street**	**(1) GAAP**	**(2) Street**	**(1) GAAP**	**(2) Street**	**(1) GAAP**	**(2) Street**
AEG_GAAP	0.891***		1.705***		1.779***		1.392***	
	(3.137)		(5.250)		(4.832)		(3.144)	
AEG_Street		2.724***		3.929***		3.827***		3.228***
		(5.158)		(6.139)		(5.042)		(3.565)
GDPGA	1.144***	0.951***	0.910***	0.665***	0.707***	0.479***	0.534***	0.333*
	(11.194)	(9.275)	(7.786)	(5.357)	(5.337)	(3.248)	(3.353)	(1.893)
Return	0.204***	0.169***	0.264***	0.249***	0.413***	0.409***	0.476***	0.463***
	(2.817)	(2.627)	(3.196)	(3.198)	(4.411)	(4.419)	(4.222)	(4.196)
Yield	-0.019***	-0.013**	-0.018**	-0.010	-0.017**	-0.009	-0.014	-0.008
	(-3.005)	(-2.358)	(-2.486)	(-1.429)	(-2.074)	(-1.107)	(-1.497)	(-0.828)
Spread	-0.015	-0.014*	-0.016	-0.013	-0.016	-0.012	-0.011	-0.008
	(-1.614)	(-1.701)	(-1.576)	(-1.318)	(-1.386)	(-1.065)	(-0.769)	(-0.582)
Intercept	0.015	0.037	0.054*	0.075**	0.084**	0.103***	0.101**	0.119***
	(0.551)	(1.457)	(1.686)	(2.448)	(2.337)	(2.813)	(2.340)	(2.744)
No. of Obs.	60	60	60	60	60	60	60	60
Adj. R2	0.789	0.833	0.713	0.745	0.622	0.631	0.439	0.463

CONCLUSION

This study builds on Konchitchki and Patatoukas (2014a) by examining whether aggregate street earnings have strong predictive power for GDP forecasts and how they compare to GAAP-based aggregate earnings. Since street earnings are not constrained by GAAP regulations and focus on more persistent earnings components, we hypothesize and find that street earnings significantly predict future GDP and have stronger predictive power than GAAP earnings. This study contributes to both accounting and economics research by demonstrating the role of accounting information in macroeconomic forecasting and identifying street earnings as a key indicator with superior predictive content. Additionally, we extend prior research by providing new insights into the predictive value of street earnings.

ACKNOWLEDGEMENT

We thank conference participants at the Annual Conference of the Decision Sciences Institute. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

REFERENCES

Ang, A., Piazzesi, M., & Wei, M. (2005). What does the yield curve tell us about GDP growth? *Journal of Econometrics*, *131*(1–2), 359–403.

Bhattacharya, N., Black, E.L., Christensen, T.E., & Larson, C.R. (2003). Assessing the relative informativeness and permanence of pro forma earnings and GAAP operating earnings. *Journal of Accounting and Economics*, *36*(1–3), 285–319.

Black, D.E., Christensen, T.E., Ciesielski, J.T., & Whipple, B.C. (2018). Non-GAAP reporting: Evidence from academia and current practice. *Journal of Business Finance & Accounting*, *45*(3–4), 259–294.

Bradshaw, M.T., & Sloan, R.G. (2002). GAAP versus the street: An empirical assessment of two alternative definitions of earnings. *Journal of Accounting Research*, *40*(1), 41–66.

Bratten, B., Larocque, S., & Yohn, T.L. (2023). Filling in the GAAPs in individual analysts' street earnings forecasts. *Management Science*, *69*(8), 4790–4809.

Bureau of Economic Analysis. (2014*). Concepts and methods of the U.S. national income and product accounts.* United States Department of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis.

Dechow, P.M., Kothari, S.P., & Watts, R.L. (1998). The relation between earnings and cash flows. *Journal of Accounting and Economics*, *25*(2), 133–168.

Estrella, A., & Mishkin, F.S. (1996). Predicting US recessions: financial variables as leading indicators. *Review of Economics and Statistics*, *80*(1), 45–61.

Fama, E.F. (1981). Stock returns, real activity, inflation, and money. *American Economic Review*, *71*(4), 545–565.

Gaertner, F.B., Kausar, A., & Steele, L.B. (2020). Negative accounting earnings and gross domestic product. *Review of Accounting Studies*, *25*, 1382–1409.

Harvey, C.R. (1989). Forecasts of economic growth from the bond and stock markets. *Financial Analysts Journal*, *45*(5), 38–45.

Kausar, A., & Park, Y.I. (2024). International financial reporting standards and the macroeconomy. *The Accounting Review*, *99*(1), 315–336.

Konchitchki, Y., & Patatoukas, P.N. (2014a). Accounting earnings and gross domestic product. *Journal of Accounting and Economics*, *57*(1), 76–88.

Konchitchki, Y., & Patatoukas, P.N. (2014b). Taking the pulse of the real economy using financial statement analysis: Implications for macro forecasting and stock valuation. *The Accounting Review*, *89*(2), 76–88.

Landefeld, J.S., Seskin, E.P., & Fraumeni, B.M. (2008). Taking the pulse of the economy: Measuring GDP. *Journal of Economic Perspectives, 22*(2), 193–216.
Newey, W.K., & West, K.D. (1987). A Simple, Positive Semi-Definite, Heteroskedasticity and Autocorrelation Consistent Covariance Matrix. *Econometrica, 55*(3), 703–708.

APPENDIX

AGGREGATE EARNINGS SAMPLE CONSTRUCTION

A.1 Timeline

U.S. Securities and Exchange Commission (SEC) is an agency of the United States federal government. SEC requires publicly traded companies to disclose quarterly reports on Form 10-Q and annual reports on Form 10-K. Deadlines for 10-Q filings are 40 or 45 days after the fiscal quarter ends, and for 10-K filings are 60, 75 and 90 days after the fiscal year ends, depending on the companies' filing status. According to the deadline requirements, technically speaking, macro forecasters are able to get the financial information from all the public firms, but to be conservative, we only include accounting earnings from firms reporting within 40 days after the calendar quarter ends in the sample, to give macro forecasters enough time to get the accounting earnings data before they response to BEA.

Street earnings extracted from the I/B/E/S database becomes available after companies announce their earnings. Those earnings announcement dates are generally earlier than the 10-K/Q release dates. Therefore, for companies' street earnings to be included in the aggregate street earnings calculation in each quarter, we require earnings announcement dates to be within 40 days after the calendar quarter ends.

Taking Q1: 2020 as the reference quarter as an example, the timeline for BEA's estimates of Q1: 2020 (1/1/2020-3/31/2020), macro forecasters' estimates of the future quarters and the GAAP and street earnings announcement dates we chose are as follows:

4/30/2020: BEA releases advance estimates of Q1: 2020 GDP; BEA sends survey questionnaires to macro forecasters for future GDP forecasts;

4/1/2020-5/10/2020 (firms included in the aggregate earnings calculation): public firms release Form 10-K/Q with GAAP earnings data for Q1: 2020; public firms release earnings announcements for Q1: 2020

5/15/2020: macro forecasters send the surveys back to BEA, as a response for the forecast of future GDP for Q2: 2020 and after;

5/31/2020: BEA releases second estimates of Q1: 2020 GDP;

6/30/2020: BEA releases third estimates of Q1: 2020 GDP.

Current: BEA has most recent estimates of GDP after annual and comprehensive revisions

From this timeline, we can tell that before macro forecasters response to BEA for future GDP estimate, they only have access to BEA's advance estimates of last quarter's GDP and the public firms' release of last quarter's accounting earnings. Therefore, following Konchitchki and Patatoukas (2014a), we use aggregate GAAP and street earnings growth for quarter q and advance GDP estimates for quarter q, which can be obtained by macro professional forecasters, to predict the third estimates and most recent estimates of future GDP growth in the models.

A.2 Fiscal vs Calendar Quarters

Another critical term used in the research paper is "fiscal quarter". Fiscal quarter is based on a company's fiscal year, which is used for preparing annual financial statements. Unlike the calendar year, which runs from January to December, a fiscal year may follow a different schedule. For example, a company might set its fiscal year from February to the following January, meaning its first fiscal quarter would be from February to April. However, even if a company's fiscal year does not align with the calendar year, its fiscal quarter-end dates may still match the calendar quarter-end dates. For instance, if a company's fiscal year runs from April to the following March, its first fiscal quarter (April to June) coincides with the second quarter of the calendar year.