J. Account. Public Policy xxx (xxxx) xxx

Contents lists available at ScienceDirect

J. Account. Public Policy

journal homepage: www.elsevier.com/locate/jaccpubpol

Full length article

Economic policy uncertainty and financial statement comparability

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ARTICLE INFO

Article history:
Available online xxxx

JEL classification:
E66
M41

Keywords:
Economic policy uncertainty
Financial statement comparability
Accounting estimates
Accounting policy choice

ABSTRACT

We examine the implications of economic policy uncertainty (EPU) for financial statement comparability. We posit that the increased difficulty of estimating future cash flows and the increased opportunity for earnings management with increased EPU reduce the quality of earnings and its comparability. Consistent with this reasoning, we find a negative relation between earnings comparability and lagged EPU. Further, the association between EPU and comparability is more negative for firms that have poorer accruals quality and higher earnings volatility. We do not find that accounting policy choice is systematically related to the association between EPU and comparability. These results suggest that cross-sectional differences in accounting estimates rather than accounting policies influence the relation between EPU and comparability.

1. Introduction

This study examines how economic policy uncertainty (EPU) is associated with financial statement comparability (comparability, hence). In addition, because firms' accounting responses to economic conditions affect comparability, we also focus on two factors that could influence these accounting responses – accounting estimates and accounting policy choice – and study how existing cross-sectional differences in these factors affect the association between EPU and comparability.

EPU in the US and, more generally, globally has been high in recent years.[1] High EPU has serious adverse consequences for firms. For example, Brogaard and Detzel (2015) find that EPU is a priced risk factor; it increases the volatility of returns, as investors are unsure of how the uncertainty might affect firm performance. EPU also reduces firms' investments (Kang, Lee, and Ratti, 2014; Gulen and Ion, 2015), which could adversely affect future performance.

EPU also has implications for the quality of financial reporting, as an emerging body of research documents. For example, Jin, Kanagaretnam, Liu and Lobo (2019) argue that EPU increases uncertainty about the timing of future cash flows and creates incentives for earnings management. We build on this stream of research and investigate the relationship between EPU and comparability. We study comparability because it is an enhancing characteristic of financial reporting. Comparability

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[1] See http://www.policyuncertainty.com.

https://doi.org/10.1016/j.jaccpubpol.2020.106800
0278-4254/

enables users to "identify similarities in, and dissimilarities among items."[2] This means that if two firms have experienced the same set of economic events, the more comparable the accounting between the firms, the more similar their financial statements.

We argue that EPU is likely to influence comparability in the following two ways. First, EPU increases the uncertainty of future cash flows, which makes them more difficult to forecast. As a result, the probability of two firms that face the same underlying economic conditions having similar accrual estimates decreases. Stated differently, EPU increases the variation in accounting estimates. In a recent study, Nagar, Schoenfeld, and Wellman (2019) find that investor response to earnings surprises is weaker when EPU is high. This suggests that when EPU is high, investors are unsure about the information conveyed by earnings and, therefore, place less weight on it. Second, as discussed in Jin et al. (2019), the increased uncertainty of estimating accruals makes it more difficult for investors to detect earnings management. Consequently, the probability of earnings management increases. Given that the level of earnings management is likely to differ across firms because they have different earnings management objectives, reported earnings across firms that face similar economic conditions are likely to differ and adversely affect comparability. Therefore, we hypothesize a negative relation between EPU and accounting comparability.

However, it is not *ex-ante* clear that EPU will adversely affect comparability, because comparability is determined by a firm's accounting response to an economic event. The accounting response to an economic event is further influenced by the firm's accounting policies. However, accounting policies are typically stable over time and are unlikely to change in response to EPU. For example, Amazon.com has been using the FIFO method for valuing inventory since at least 2003. Following this argument, firms with similar accounting policy choices are likely to have similar responses. If firms in the same industry adopt similar accounting policies, their accounting responses to EPU could plausibly be similar. As a result, EPU may not affect financial statement comparability. Using the composite index of EPU developed by Baker, Bloom, and Davis (2016) and the comparability measure of De Franco, Kothari, and Verdi (2011), we document a negative association between EPU and comparability.

We next perform cross-sectional tests to further explore the association between EPU and comparability. Specifically, we consider whether existing differences in accounting estimates and policy choice affect the association between EPU and comparability. These cross-sectional tests are important because they also shed light on *how* accounting estimates and policies affect comparability, a topic that has *not* received much attention in prior research. Importantly, prior research does not compare the relative importance of accounting estimates and policy choice in shaping firms' accounting comparability.

In the first set of tests, we examine how the association between EPU and comparability is moderated by existing cross-sectional differences in firms' accounting estimates. Our results show that accounting estimates significantly influence the negative impact of EPU on comparability. We use past accruals quality and earnings volatility as our main measures of accounting estimates and find that the association between comparability and EPU is significantly more negative for firms that have lower past accruals quality and higher earnings volatility.

We next examine the effect of existing accounting policy choice heterogeneity on the association between EPU and comparability. Consistent with our approach for accounting estimates, we test the effect of accounting policy choice heterogeneity by categorising firms based on the degree of heterogeneity in accounting policies one year before the period of EPU. We find that the negative association between EPU and comparability is not sensitive to existing cross-sectional differences in accounting policies. Our results thus suggest that differences in existing accounting estimates primarily moderate the association between EPU and comparability.

In an additional test, we extend our analysis to other forms of macroeconomic uncertainty – the Chicago Board Options Exchange (CBOE) Volatility Index (VIX) and profit uncertainty. We find that both VIX and profit uncertainty have negative associations with comparability. These results provide further insights into the effect of economic uncertainty on financial statement comparability.

Our results are robust to alternate definitions of comparability, based on a modification of the De Franco et al. (2011) model and the earnings covariance measure developed by Francis, Pinnuck and Watanabe (2014). We find that our results do not change when we use alternate measures of accounting estimates and policy choice. Finally, our results are also robust to controlling for firm-level uncertainty.

Our paper makes many contributions. First, we contribute to extant research by documenting how EPU relates to comparability, an important property of reported earnings. Our results are important, because they show that EPU has an adverse impact on comparability, thereby potentially reducing the decision usefulness of earnings.

Second, we contribute to the literature by showing how existing differences in accounting estimates and policies affect the accounting response (which drives comparability) to economic uncertainty. To our knowledge, ours is the *first* study to document this effect empirically. As discussed above, although De Franco et al. (2011) allude to the greater impact of accounting estimates on comparability when they discuss the superiority of their comparability measure over input-based measures, they do not formally test it. By providing direct empirical evidence, we show that accounting estimates indeed affect comparability to a greater degree than accounting policy choices. This is an important contribution of our study, as it expands our understanding of how accounting differences affect comparability.

Third, we show how changes in economic conditions affect comparability cross-sectionally. Most of the extant comparability literature examines how comparability affects different aspects of financial reporting and firm performance.

[2] See the Financial Accounting Standards Board (FASB) Conceptual Framework (2006, p. 30).

For example, Kim, Kraft, and Ryan (2013) and Kim, Li, Lu and Yu (2016) examine the impact of comparability on credit risk and stock price crash risk, respectively. However, there is little research on the determinants of comparability.[3] This is an important contribution, because it expands our knowledge of factors that potentially affect comparability.

Lastly, we contribute to research on the effects of macroeconomic factors on financial reporting (for example, Kim and Qi 2010; Konchitchki, Luo, Ma and Wu 2016) by showing that EPU influences financial statement comparability. Our study thus provides additional evidence of how macroeconomic changes affect the properties of firms' financial reports.

The paper proceeds as follows. We review the relevant literature in Section 2, develop our hypotheses in Section 3, and detail the research methodology in Section 4. We describe the data in Section 5, and present the main results in Section 6 and the results of additional analyses in Section 7. We discuss the results of robustness tests in Section 8 and conclude the study in Section 9.

2. Literature review

2.1. Economic policy uncertainty

The U.S. economy has experienced significantly high levels of economic and policy uncertainty over the last decade, starting with the Global Financial Crisis of 2007–08 and subsequent government policies, such as the US Government Troubled Asset Relief Program (TARP) and the Dodd-Frank Act. A rise in EPU has a negative effect on the US economy. Indeed, Baker et al (2016) observe that the 112-point rise in policy uncertainty from 2006 to 2011 was followed by a persistent fall in real industrial production, with a peak negative impact of approximately −4.0% at 14 months. Further, there was a persistent fall in aggregate employment following a policy uncertainty shock, with a peak response of 2.3 million jobs cut after 20 months. Bernanke (1983) shows that policy uncertainty has an adverse impact on economic activity, since businesses and households are uncertain about the timing, content, and potential impact of government decisions on economic policies, which, in turn, leads them to postpone investment and consumptions.

Prior research finds that the uncertainty surrounding government policies and regulatory frameworks may heighten the uncertainty of operating environment for firms. For instance, prior studies find that policy uncertainty is a priced risk factor, as it increases stock risk premiums and cost of finance, and fuels stock return volatility (Brogaard and Detzel 2015; Baker et al. 2016; Pastor and Veronesi 2012).

Gulen and Ion (2015) find a negative association between economic policy uncertainty and firms' capital investment, and this negative effect is stronger for firms with a higher degree of investment irreversibility. Policy uncertainty negatively impacts M&A deals, and increases the time required to complete the process (Bonaime, Gulen, and Ion 2018; Nguyen and Phan 2017).

The uncertainty about future cash flows decreases expected firm profitability (Kahle and Stulz 2013). To hedge against uncertainty, firms hold more cash and investors value cash holdings more during periods of high uncertainty (Im, Park, and Zhao 2017). Overall, the results from previous studies indicate that as firms face a significant amount of uncertainty of future cash flows in higher EPU periods, they are more risk-averse and implement more conservative policies, which could adversely impact firm value.

Another stream of research investigates firms' information disclosures. Kim et al. (2016) argue that higher macroeconomic uncertainty adversely affects the quality of managers' information about future earnings. Consistent with their argument, they find that in periods of higher macroeconomic uncertainty, managers release management forecasts less frequently, and that these forecasts are more neutral and focus on shorter forecast horizons. Similarly, Jiang, Pittman, and Saffar (2019) document that EPU increases the length of textual disclosures and reduces their readability. Further, managers tend to use more negative and uncertain tones in their textual disclosures when EPU is high.

Nagar et al. (2019) find that EPU exacerbates investors' information asymmetry due to their heterogeneous beliefs about the effect of EPU. Consequently, investor response to earnings disclosed by firms with high liquidity risk is weaker. To mitigate the negative effect of EPU, managers proactively make more voluntary disclosure. Boone, Kim, and White (2018) and Bird, Karolyi, and Ruchti (2017) also document more voluntary disclosures during high policy uncertainty periods. Utilizing elections as a proxy for political uncertainty, Drake, Mayberry, and Wilde (2018) find that policy uncertainty reduces the extent to which current prices reflect information about future earnings (lower future ERC). Consistent with EPU making forecasting future earnings more difficult, Baloria and Mamo (2017) find that analyst forecasts become less accurate as policy uncertainty increases. However, to our knowledge, no prior studies have investigated the effect of EPU on firms' accounting comparability.

2.2. Financial statement comparability

2.2.1. The economic effect of comparability

Most studies of accounting comparability examine the consequences of comparability. Specifically, this stream of research argues that comparable financial statements among peer firms improve information transparency, decrease

[3] De Franco et al. (2011), and Francis et al. (2014) are exceptions.

information acquiring and processing cost, and facilitate information transfer. Empirical studies find that comparability is associated with better acquisition-investment decisions (Chen, Collins, Kravet and Mergenthaler 2018), less under-pricing at the time of seasoned equity offerings (Shane, Smith, and Zhang 2014), better syndicate loan contract deals (Fang, Li, Xin and Zhang 2016), and more efficient internal capital market and lower diversification discounts in multi-segment firms (Cheng and Wu 2018). De Franco et al. (2011) examine the effect of accounting comparability on analyst coverage and forecast properties and find that analyst coverage increases and forecast accuracy improves for firms with high accounting comparability. Imhof, Seavey, and Smith (2017) document that greater financial statement comparability is associated with lower cost of equity capital.

Kim et al. (2016) find the ex-ante stock price crash risk decreases with financial statement comparability, which suggests that comparability reduces managers' incentives to hoard bad news. Choi, Choi, Myers and Ziebart (2019) find that comparability improves the informativeness of stock prices, as measured by the future earnings response coefficient (FERC). Sohn (2016) investigates the effect of accounting comparability on managers' opportunistic earnings management. He finds that managers escape from accrual-based earning management and switch to real earnings management when firms' financial reports are more comparable to those of peers. Using the textual similarity of accounting policy footnotes disclosed in10-K filings as a proxy for accounting consistency, Peterson, Schmardebeck, and Wilks (2015) find that lower consistency relative to peer firms in the industry is associated with larger discretionary accruals, higher information asymmetry, lower analyst coverage, less accurate analyst forecasts, and weaker stock return synchronicity.

2.2.2. The determinants of comparability

Some studies have examined the determinants of comparability. These studies have almost exclusively focused on the role of accounting standards and regulations in affecting comparability. For example, Brochet, Jagolinzer, and Riedl (2013) and Barth, Landsman, Lang and Williams (2012) study the effect of the mandatory adoption of IFRS on comparability, and Dhole, Lobo, Mishra, and Pal (2015) examine the role of the SEC's XBRL Mandate on accounting comparability. Apart from accounting standards, economic agents and institutional incentives also have a significant impact on comparability. In this context, Francis et al. (2014) find that auditors have a significant impact on accounting comparability. Specifically, firms audited by the same Big 4 auditors exhibit more comparable earnings than those audited by different Big 4 firms. Similarly, Chen, Chen, Chin and Lobo (2019) examine individual signing auditors and find that client firms that share a common signing auditor report more comparable earnings.

Imhof et al. (2017) consider the proprietary cost of disclosure and find that higher proprietary costs discourage firms from reporting more comparable financial statements, and this effect is more pronounced for firms in highly competitive markets.

3. Hypothesis development

Our discussion of EPU above suggests that it has profound implications for firms. However, surprisingly, there has been little research on the implications of EPU for firms' financial reporting practices, especially for the properties of reported earnings. Dai and Ngo (2020) find a positive association between uncertainty and accounting conservatism. Similarly, Ng, Saffar, and Zhang (2020) find that banks accrue for more expected loan losses in times of higher EPU. However, EPU could also create incentives for earnings management. Specifically, Jin et al. (2019) argue that uncertainty in economic policy and in monetary policy make it easy for bank managers to manipulate earnings, and find that economic and monetary policies are positively related to earnings opacity. In this study, we contribute to this literature by studying how EPU relates to financial statement comparability.

The FASB outlines the objective of financial reporting is "to provide information that is useful to present and potential investors and creditors and others in making investment, credit, and similar resource allocation decisions."[4] The FASB identifies important qualitative and enhancing characteristics that improve the decision usefulness of financial information. One of the enhancing characteristics identified by the FASB is comparability. According to the FASB, comparability enables users to "identify similarities in, and dissimilarities among items."[5] Thus, two sets of comparable financial statements would be similar under similar economic conditions (De Franco et al. 2011). Although the FASB does not provide a more specific definition of comparability, it suggests that satisfying the qualitative characteristics (relevance, materiality and faithful representation) would enhance the comparability of financial statement information (QC24, SFAC No 8). In other words, high financial reporting quality is likely to enhance accounting comparability. Indeed, De Franco et al. (2011) show that earnings quality and comparability are positively associated.

Under ideal conditions of accounting, financial statements always reflect the true intrinsic value of the firm, as future cash flows are perfectly known (Scott 2014). Therefore, financial statements are perfectly comparable under ideal conditions. However, under non-ideal conditions, financial reporting requires significant judgment about the amount and timing of future cash flows, leading to a trade-off between relevance and reliability of the information presented in the financial statements. To the extent that given economic conditions affect firms differently, it would affect their accounting estimates. This, in turn, would affect earnings quality and accounting comparability.

[4] See the FASB Conceptual Framework for Financial Reporting (2006), Chapter 1.
[5] See FASB Statement of Financial Accounting Concepts No 8 (2010), p. 19.

EPU potentially exacerbates this problem for two reasons. First, it increases uncertainty about future earnings and cash flows, thereby adversely affecting the reliability of estimates. Consider the impact of changes in the consumer price index (CPI), for example. Increases in the CPI make commodities and services more expensive for customers. This could inhibit customer spending and thus potentially adversely affect a firm's performance. However, the impact of increases in CPI are likely to have different effects on different firms. To the extent that some firms can anticipate the effect of the uncertainty better, their financial statements would better reflect the economic reality. Strong political connections could also help firms deal with the uncertainty better, by giving them access to information sooner than non-connected firms. Consistent with this logic, prior research has shown that politically connected firms enjoy a lower cost of equity than non-connected firms (Boubakri, Guedhami, Mishra and Saffar 2012).

Second, as discussed above, EPU could also create incentives for earnings management (Jin et al. 2019). Consider the impact of changes in tax policy. If the government raises the tax rate or reduces available deductions, it could create incentives for managers to manage earnings by following aggressive tax policies. Guenther (1994) and Monem (2003) provide evidence of earnings management in response to changes in government tax policy. Earnings manipulation would impair accounting quality and comparability. Based on the above arguments, we hypothesize that:

H1: ***Financial statement comparability is negatively associated with economic policy uncertainty.***

Note, however, that it is not clear, *a priori*, that EPU would adversely affect comparability. This is because firms typically tend to have stable accounting policies over time. To the extent that there is homogeneity in accounting policies, accounting responses to economic shocks would likely be similar. This would lead to comparability remaining the same over time. Further, even allowing for the possibility that a firm changes its accounting policy in response to uncertainty, it is still possible for two firms with different policies to report the same earnings (De Franco et al. 2011). This would cause their earnings comparability to remain the same. H1, therefore, is a refutable hypothesis.

Our main test demonstrates that EPU is negatively related to comparability. To strengthen the identification and to better understand the link between EPU and comparability, we conduct two important cross-sectional tests. Specifically, we consider existing cross-sectional differences in accounting estimates and policy choice to explore the relation between EPU and comparability.

We focus on accounting estimates first. We argue that greater cross-sectional variation in accounting estimates suggests that there is greater difference in managers' estimates of future cash flows. Prior research suggests that uncertainty forces management to make accounting adjustments – for example, Ng et al. (2020) show that banks increase their loan loss provisions during periods of high EPU and Dai and Ngo (2020) find that accounting conservatism increases with political uncertainty. These accounting adjustments likely impair the comparability of earnings. We expect that the greater the existing cross-sectional variation in accounting estimates, the more negative will be the association between EPU and comparability. Accordingly, we hypothesize that:

H2a: The negative association between financial statement comparability and economic policy uncertainty is stronger when there is greater cross-sectional variation in accounting estimates.

We use two main variables to measure accounting estimates – accruals quality and earnings volatility. We use accruals quality because accruals, which are managers' expectations of future cash flows, require significant professional judgement (Francis, LaFond, Olsson and Schipper 2005). We posit that high economic uncertainty would increase the difficulty in estimating accruals and increase the error in accruals. This would likely impair comparability. Note that we do not differentiate between whether the estimation errors are unintentional, arising from the uncertainty of business environment and managerial capability, or are intentional, due to managerial incentives, as both are estimation errors and potentially impair comparability. H2a predicts that the association between EPU and comparability is more negative for firms that have poor accruals quality.

Prior research indicates that firms with higher earnings volatility exhibit higher discrepancy between accruals and cash flows even in the absence of intentional earnings management (Dechow and Dichev 2002), which is consistent with greater uncertainty in estimating accruals. The increased difficulty in estimating accruals will result in two identical firms reporting different amounts of earnings even if they do not engage in earnings management. In addition, it is more difficult for investors to detect earnings management when firms have high earnings volatility. Consequently, managers of these firms may engage in more earnings management, which would reduce financial statement comparability (De Franco et al. 2011). It is for the above reasons that we predict that the negative relation between EPU and comparability will be stronger for firms with historically more volatile earnings.

Accounting policy choice heterogeneity captures cross-sectional differences in accounting policies. Ceteris paribus, firms with homogenous accounting policies have more comparable earnings (DeFond and Hung 2003). This is because such firms respond to economic conditions in a similar manner. Therefore, we expect that the effect of EPU on comparability will be lower for firms with more homogenous accounting policies. In contrast, the association between EPU and comparability would be more negative for firms that have more heterogeneous accounting policies. Therefore, we hypothesize that:

H2b: The negative association between financial statement comparability and economic policy uncertainty is stronger when there is greater heterogeneity in accounting policy choice.

We follow DeFond and Hung (2003), and define accounting policy choice heterogeneity in terms of accounting policies relating to inventory valuation, depreciation, and investment tax credit method.

4. Research methodology

4.1. Financial statement comparability measure

De Franco et al. (2011) introduce an output-based measure of comparability. We follow their approach in this study. De Franco et al. (2011) view comparability as the extent to which economic events, measured by stock returns, map into firms' earnings. Two firms have comparable financial statements, if their reported earnings are similar under similar economic conditions. This view of comparability is consistent with the FASB's view, as discussed above. Based on De Franco et al. (2011), we start with the following regression model:

$$Earnings_{it} = \alpha_i + \beta_i Return_{it} + \varepsilon_{it} \tag{1}$$

In Eq. (1) above, $Earnings_{it}$ is the quarterly income before extraordinary items of firm i in quarter t, deflated by the beginning of the quarter market value of equity. $Return_{it}$, which measures firm i's quarterly stock return, is a proxy for economic events. Following Chen et al. (2019), we estimate Eq. (1) for each firm-year over the past 8 quarters. The estimated coefficients ($\widehat{\alpha}_i$) and ($\widehat{\beta}_i$) from the regression capture firm i's accounting function. Similarly, $\widehat{\alpha}_j$ and $\widehat{\beta}_j$ measure the accounting function of firm j from the same two-digit SIC industry as firm i.

In the estimation of the accounting function for each firm-year, De Franco et al (2011) use observations from the 16 previous quarters. In this study, we use only the past 8 consecutive quarters. This is because, in our model, which we discuss later, we relate comparability in period t with economic policy uncertainty in period $(t-1)$. Using 16 quarters would require using earnings and returns for two years *before* the time that policy uncertainty is measured. Since our hypothesis is that policy uncertainty affects future comparability, using earnings and returns from a period before the measurement of policy uncertainty is inappropriate.

We illustrate this in Fig. 1, which shows a time-line for comparability and uncertainty. Since we measure comparability in year t, the measure is based on observations from the 8 quarters leading up to year t, i.e., it is based on observations from quarters $t-7$ to t. In contrast, uncertainty is measured in year $t-1$. Therefore, it is based on observations from quarters $t-7$ to $t-4$. This time-line helps us understand why we do not follow De Franco et al's (2011) more "conventional" approach of using earnings and returns of 16 quarters to measure comparability – doing so would require us to use observations from 2 years *before* the uncertainty. Consequently, the measure of comparability obtained would be significantly influenced by events before the period of uncertainty. This would potentially reduce the effect of uncertainty on the measure of comparability.[6]

To gauge the distance in the accounting systems between firm i and firm j in mapping economic events, we calculate the predicted earnings for firms i and j, given the economic events of firm i ($Return_{it}$), using each firm's estimated accounting functions as follows:

$$E(Earnings_{iit}) = \widehat{\alpha}_i + \widehat{\beta}_i Return_{it} \tag{2}$$

$$E(Earnings_{ijt}) = \widehat{\alpha}_j + \widehat{\beta}_j Return_{it} \tag{3}$$

In Eqs. (2) and (3) above, $E(Earnings_{iit})$ is the expected earnings for firm i given firm its accounting function and return in quarter t, and $E(Earnings_{ijt})$ is that for firm j, given firm its accounting function and firm i's return in quarter t. To measure how comparable firm i is to firm j, we calculate the mean absolute difference between the expected earnings of the past 8 quarters. We then multiply this mean absolute difference by minus 1 to measure comparability:

$$Comparability_{ijt} = -\frac{1}{8} \times \sum_{t-7}^{t} \left| E(Earnings_{iit}) - E(Earnings_{ijt}) \right| \tag{4}$$

A higher value of $Comparability_{ijt}$ indicates greater accounting comparability. We repeat this procedure for all firm pairs in a given two-digit SIC industry in a year, and rank the values of comparability for each firm i. We then calculate two measures of accounting comparability: (i) the average of the four highest values of comparability for firm i in year t; (ii) the median value of all of firm i's comparability scores in year t. We use the first measure of comparability (based on the average of the four highest values) as our primary proxy for comparability. We also test how sensitive our results are to the definition of comparability by using the second proxy.[7]

[6] The time-line shows that there is some overlap over quarters in the measurement of uncertainty and comparability. In additional tests (not reported here, but available upon request), we re-estimate Eq. (5) by considering uncertainty two years before comparability. This eliminates any time-period overlap in the measurement of uncertainty and comparability. Our results continue to hold.

[7] We do not tabulate these results.

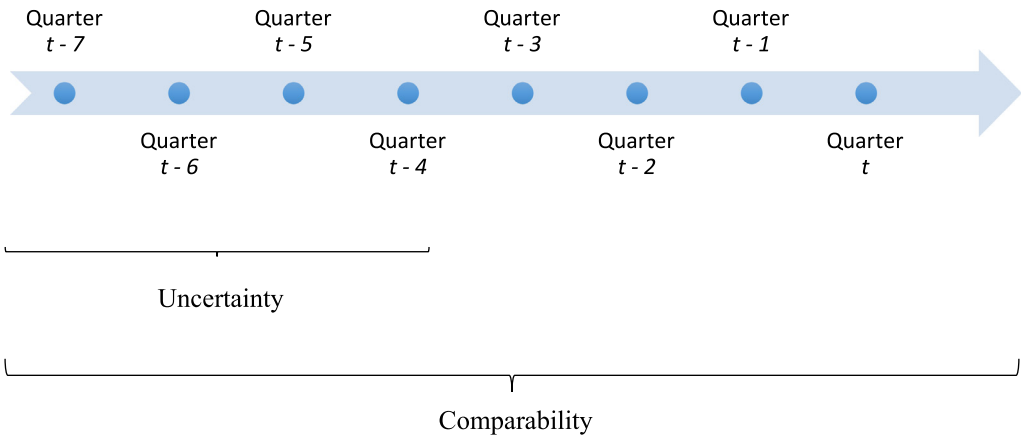

Fig. 1. Comparability and Uncertainty: A Time-line. The figure above presents the relative time-line of the measurement of uncertainty and comparability. Comparability is measured over a period of eight quarters from quarter *t*-7 to quarter *t*. This corresponds to year *t*. Since uncertainty is measured in year *t*-1, it is measured over quarters $t-7$ to $t-4$. Since, we measure EPU in the year before comparability, we must measure EPU over the year $t-1$, if the comparability measure is for year *t*. To illustrate, suppose we measure comparability in January 2020, then the EPU is measured in January 2019, based on monthly data from February 2018. In terms of quarters, therefore (we need the reference to quarters for the comparability variable), if January 2020 is quarter *t*, the period February 2018 – January 2019 relates to quarters $t-7$ – $t-4$.

4.2. Measuring economic policy uncertainty

We measure policy-related economic uncertainty using the aggregate index compiled by Baker et al. (2016) (BBD index). The BBD index captures policy uncertainty in the economy as a function of four components. The first component quantifies the volume of news in the ten largest U.S. newspapers containing terms pertaining to economic and policy uncertainty. This news-based policy uncertainty index reflects the frequency of uncertainty discussed in the media. The second component captures the level of uncertainty related to tax policies. It is constructed by drawing data from reports by the Congressional Budget Office. The reports provide lists of federal tax code provisions that are scheduled to expire in the current calendar year and each of the next 10 years. The tax expiration index reflects temporary tax codes as a source of undermining stability in and certainty about the tax code. The third component of the index is the dispersion of economic forecasts about future monetary policy, which is measured using the interquartile range of the CPI forecast, and the fourth component is the uncertainty of future fiscal policies, measured using the interquartile range of the forecasted federal/state/local purchases. The overall index of policy-related economy uncertainty is constructed using weights of 1/2 on news-based policy uncertainty index, 1/6 on tax expirations index, and 1/3 on economic forecaster disagreement about future monetary and fiscal policies. The BBD index is widely accepted as a reliable measure of the overall level of policy uncertainty and has been used in recent studies investigating the impact of economic policy uncertainty on investment (Gulen and Ion 2015), merger and acquisition (Bonaime et al. 2018), and asset pricing (Brogaard and Detzel 2015).

4.3. Empirical model for testing hypothesis 1

We estimate the following baseline model to test the relation between EPU and financial reporting comparability:

$$\begin{aligned} Comparability_{it} = {} & \alpha_0 + \alpha_1 EPU_{it-1} + \alpha_2 Size_{it} + \alpha_3 MTB_{it} + \alpha_4 Le\upsilon_{it} + \alpha_5 CFO_{it} + \alpha_6 STD\_CFO_{it} + +\alpha_7 STD\_Sale_{it} \\ & + \alpha_8 Sales\_Growth_{it} + \alpha_9 STD\_Earn_{it} + \alpha_{10} STD\_Mret_{it} + \alpha_{11} Loss_{it} + \alpha_{12} ROA_{it} + \alpha_{13} Op\_Cycle_{it} \\ & + \alpha_{14} Lab\_Int_{it} + \alpha_{15} Cap\_Int_{it} + \alpha_{16} GDP\_Growth_{it} + \sum_j \gamma_j Ind_j + \epsilon_{it} \end{aligned} \quad (5)$$

In Eq. (5), the dependent variable, $Comparability_{it}$, measures financial statement comparability (as defined in Eq. (4) above). The variable of interest is the one- year lag of economic policy uncertainty index (*EPU*). *EPU* is constructed by converting the monthly BBD index into an annual measure in a manner analogous to Gulen and Ion (2015), who convert the index into a quarterly measure. Specifically, we compute EPU_{it-1} by taking the natural logarithm of the arithmetic average of the BBD index in the twelve months of the fiscal year $t-1$.

Eq. (5) includes several control variables, based on prior research. First, following Lang, Maffett, and Owens (2010), we include firm size (*Size*) and market-to-book ratio (*MTB*) as control variables since they capture a broad range of firm-specific characteristics, including some unobservable firm-specific features. Second, we follow Francis et al. (2014) and include controls for leverage (*Lev*), cash flows from operations (*CFO*), volatility of operating cash flows (*STD_CFO*), volatility of sales (*STD_Sale*), sales growth (*Sales_Growth*), and whether the firm incurs a loss (*Loss*). These variables are included based on the idea that a firm's operating environment as well as its manager's propensity to manipulate financial reports could

affect financial statement comparability. Third, we control for volatility of earnings (*STD_Earn*) and returns (*STD_Mret*) because De Franco et al. (2011) show that comparability is affected by return and earnings volatility. The inclusion of these two variables also serves to control for firm operating risks, which could affect accounting comparability. Fourth, we control for profitability (*ROA*), labor intensity (*Lab_Int*) and capital intensity (*Cap_Int*), since these variables could affect accounting comparability (Sohn 2016). We also control for GDP growth (*GDP_Growth*) to alleviate concerns that EPU might capture general macro-economic conditions. Finally, we include industry fixed-effects based on 2-digit SIC codes. Because the EPU is a year-specific measure, we do not include year fixed effects. The inclusion of industry-fixed effects allows for control of possible systematic differences in financial accounting comparability across industries. We winsorize all continuous variables above (below) the 99th (1st) percentile of their distributions to mitigate the effect of extreme values and report standard errors clustered by firm and year. We present detailed variable definitions in Appendix A.

5. Sample, descriptive statistics, and correlations

5.1. Sample selection

We obtain quarterly and annual financial statement information for all publicly traded firms incorporated in the U.S. from Compustat and stock return data from CRSP, for the period 1994–2019. We obtain monthly indices of economic policy uncertainty from Baker et al.'s (2016) website (http://www.policyuncertainty.com).

To construct the sample, we begin with all observations for non-financial and non-utility US firms in Compustat from 1994 to 2019. Following prior literature (De Franco et al. 2011; Francis et al. 2014), we apply the following filters: (i) retain firms whose fiscal years end in March, June, September and December; (ii) delete firm-year observations with negative assets, or negative book value of equity, or total assets less than 10 million; (iii) delete firm-quarter observations with non-positive sales; (iv) retain only those observations with at least ten firms in a given industry, based on two-digit SIC codes, to ensure a reasonable number of firm-pairs within each industry; (v) retain observations with non-missing data for sales, sales growth, cash flows from operations, income before extraordinary items, returns for 8 consecutive quarters as the calculation of some control variables requires 8 consecutive quarterly observations. These screening criteria yield a final sample of 37,130 firm–years.

5.2. Descriptive statistics and correlations

We provide summary statistics in Table 1. The mean (median) value of *Comparability* is −0.649 (−0.210), comparable to the values reported by Kim et al. (2016) and Dhole et al. (2015). During the sample period, the EPU index ranges from a low of 4.232 to a high of 5.173. The mean (median) EPU Index is 4.614 (4.542). The mean (median) value of the variable *Size* is 6.326 (6.324), market-to-book ratio is 3.040 (1.885), and leverage is 0.222 (0.179). These statistics are generally consistent with prior research (Khan, Srinivasan, and Tan 2017).

Table 2 reports Pearson correlations among the regression variables. The correlation coefficient between *EPU* and *Comparability* is −0.057, significantly negative. This result provides initial support for H1. The correlations between comparabil-

Table 1
Descriptive statistics.

Variable	P25	Mean	Median	P75	Std. Dev.
Comparability	−0.600	−0.649	−0.210	−0.080	1.216
AvgComparability	−0.560	−0.592	−0.210	−0.080	1.070
EComp	0.431	0.583	0.636	0.778	0.256
EPU	4.388	4.614	4.542	4.788	0.255
News_EPU	4.407	4.676	4.683	4.958	0.280
Size	4.701	6.326	6.324	7.839	2.219
MTB	1.196	3.040	1.885	3.221	3.878
Lev	0.058	0.222	0.179	0.336	0.194
CFO	0.010	0.042	0.063	0.123	0.174
STD_CFO	0.010	0.031	0.021	0.038	0.032
STD_Sale	1.850	65.880	8.035	36.138	188.832
Sales_Growth	−0.012	0.177	0.085	0.230	0.476
Loss	0.000	0.269	0.125	0.500	0.343
STD_Earn	0.069	0.287	0.147	0.323	0.406
STD_Mret	0.072	0.126	0.109	0.162	0.070
ROA	−0.014	−0.012	0.023	0.069	0.191
Op_Cycle	4.174	4.957	4.633	5.141	1.492
Lab_Int	0.528	4.711	2.380	5.750	7.200
Cap_Int	0.035	0.236	0.137	0.360	0.250
GDP_Growth	0.016	0.026	0.026	0.040	0.017

The descriptive statistics are based on a sample of US companies drawn from the *Compustat* database. The sample covers the period from 1994 to 2019 and includes 37,130 firm-year observations. The variables are defined in Appendix A.

Table 2
Correlations.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Comparability	1.000																		
AvgComparability	**0.913**	1.000																	
EPU	**−0.057**	**−0.063**	1.000																
News_EPU	**−0.059**	**−0.064**	**0.918**	1.000															
Size	**0.112**	**0.113**	**0.148**	**0.145**	1.000														
MTB	**0.058**	**0.062**	0.001	**0.015**	**−0.092**	1.000													
Lev	**−0.106**	**−0.100**	0.008	**0.030**	**0.124**	**0.141**	1.000												
CFO	**0.127**	**0.118**	−0.007	**−0.019**	**0.300**	**−0.096**	**0.017**	1.000											
Std_CFO	**−0.121**	**−0.129**	**−0.095**	**−0.086**	**−0.440**	**0.203**	**−0.084**	**−0.273**	1.000										
Std_Sale	**−0.037**	**−0.041**	**0.044**	**0.039**	**0.511**	**0.021**	**0.011**	**0.110**	**−0.100**	1.000									
Sales_Growth	**0.023**	**0.028**	**−0.059**	**−0.065**	**−0.056**	**0.108**	**0.048**	**−0.079**	**0.141**	0.002	1.000								
Std_Earn	**−0.293**	**−0.283**	**0.047**	**0.060**	**0.274**	**−0.039**	**0.122**	**0.066**	**−0.016**	**0.240**	**−0.036**	1.000							
Std_Mret	**−0.320**	**−0.309**	**−0.047**	**−0.018**	**−0.481**	**0.106**	**−0.008**	**−0.319**	**0.354**	**−0.158**	**0.101**	0.004	1.000						
Loss	**−0.332**	**−0.329**	**0.036**	**0.054**	**−0.420**	**0.137**	**0.101**	**−0.568**	**0.294**	**−0.133**	**0.096**	**0.073**	**0.536**	1.000					
ROA	**0.210**	**0.197**	0.000	**−0.017**	**0.335**	**−0.175**	**−0.036**	**0.816**	**−0.289**	**0.106**	**−0.071**	**0.011**	**−0.404**	**−0.688**	1.000				
Op_Cycle	**0.117**	**0.122**	**0.011**	**0.015**	**0.161**	**−0.156**	**−0.326**	**−0.186**	**−0.159**	**−0.070**	**−0.059**	**−0.093**	**−0.187**	**−0.163**	**−0.038**	1.000			
Lab_Int	**−0.068**	**−0.071**	**−0.124**	**−0.123**	**−0.296**	**0.016**	**−0.062**	**0.085**	**0.154**	**−0.088**	**−0.016**	**−0.075**	**0.138**	0.005	**0.039**	**−0.294**	1.000		
Cap_Int	**−0.107**	**−0.112**	**−0.037**	**−0.037**	**0.095**	**−0.055**	**0.325**	**0.211**	**−0.133**	**0.090**	−0.006	**0.118**	**−0.023**	−0.003	**0.091**	**−0.430**	**0.122**	1.000	
GDP_Growth	**0.064**	**0.065**	**−0.093**	**−0.011**	**−0.133**	**0.046**	**−0.013**	**0.012**	**0.083**	**−0.058**	**0.075**	**−0.088**	−0.004	**−0.032**	**0.037**	**−0.016**	**0.120**	**0.045**	1.000

The Table above shows the Pearson correlation coefficients. The numbers in bold are significant at the 5% level. The sample covers the period from 1994 to 2019 and includes 37,130 firm-year observations. The variables are defined in Appendix A.

ity and other variables are generally similar to those in prior studies (Francis et al. 2014). For example, firm leverage (*Lev*), loss (*Loss*), and firm risks proxied by variables including *Std_CFO*, *Std_Sale*, *Std_Earn*, and *Std_Mret*, are negatively correlated with *Comparability*, while firm size (*Size*), market-to-book ratio (*MTB*), cash flows (*CFO*), return on assets (*ROA*) and operating cycle (*Op_Cycle*) are positively correlated with *Comparability*.

6. Results

6.1. Main results

We present the estimation results of Eq. (5) in Table 3, Column 1. We note that $\hat{\alpha}_1$ is significantly negative (coefficient = −0.257; p-value = 0.000), indicating that comparability decreases as economic policy uncertainty increases. In terms of economic significance, the coefficient of −0.257 on *EPU* suggests that a one standard deviation increase in economic policy uncertainty (0.255) is associated with 5.38 percent decrease in accounting comparability. The results provide evidence consistent with the argument that financial statement comparability declines when economic policy uncertainty increases.

Baker et al (2016) use the news component of EPU (*News_EPU*) as the primary measure of economic uncertainty. Consequently, we estimate Eq. (5) separately for *News_PU* in Column 2, Table 3. In Column 2, *News_EPU* is negatively associated with accounting comparability (coefficient = −0.170; p-value = 0.000). This provides additional support for H1.[8]

The control variables generally have similar signs as those reported in prior studies (Francis et al 2014). In Column 1 of Table 3, *Lev*, *CFO, Std_Sale*, *Loss*, *Std_Earn* and *Std_Mret* are all negatively associated with comparability (coefficient = −0.282, −0.500, −0.001, −0.891, −0.610, and −4.366, respectively; p-value = 0.000, 0.000, 0.001, 0.000, 0.000, and 0.000, respectively)[9], while *Size*, *MTB* and *Sales_Growth* are positively associated with comparability (coefficient = 0.030, 0.023 and 0.112, respectively; p-value = 0.000, 0.000 and 0.000, respectively). We further find that *ROA* is positively associated with comparability (coefficient = 0.391; p-value = 0.000) and that *Op_Cyle* and *Lab_Int* are negatively associated with comparability (coefficient = −0.036 and −0.005, respectively; p-value = 0.003 and 0.000, respectively). Finally, we find that GDP growth (*GDP_Growth*) is positively associated with comparability (coefficient = 0.950; p-value = 0.001).

We next present the results of H2a and H2b, which test whether the association between comparability and EPU is driven by accounting estimates and policy choice, respectively. We use two different proxies to capture variation in accounting estimates – accruals quality and earnings volatility, and cross-sectional differences in accounting policy choices to better understand the effect of EPU on comparability. Recognizing that EPU might affect each of the variables described above, we measure accounting estimates and policy choices in the year before we measure EPU.

6.2. Historical accruals quality and the relation between financial statement comparability and economic policy uncertainty

We start by examining whether the association between EPU and comparability differs systematically with cross-sectional differences in a firm's accruals quality. We use accruals quality because accruals, which are managers' expectations of future cash flows, require significant professional judgement (Francis et al. 2005). We posit that high economic uncertainty would increase the difficulty of estimating accruals and increase the error in accruals. This would likely impair comparability. Note that we do not differentiate between whether the estimation errors are unintentional, arising from the uncertainty of business environment and managerial capability, or are intentional, due to the managerial incentives, as both are estimation errors and potentially impair comparability. For example, Jin et al. (2019) show that EPU creates incentives for manipulating earnings. Accruals-based earnings management reduces earnings quality, which in turn impairs the comparability of earnings.

We follow the approach of Ball and Shivakumar (2006) and use a piecewise linear regression model that regresses accruals on cash from operations in the current period to incorporate the asymmetry of accruals in gain and loss recognition. We obtain the residuals from this model, and calculate the standard deviation of firm *i*'s residuals over the past 8 quarters as firm *i*'s accrual quality (*AQ_BS*). Higher values of *AQ_BS* indicate poorer accruals quality. We divide our sample into terciles based on the value of *AQ_BS* in the year *before* the year we measure EPU. We use the lag value of *AQ_BS* to form terciles to avoid problems arising from accruals quality being influenced by uncertainty. We follow this approach for the tests described below.

We estimate Eq. (5) for each tercile and report the results in Table 4. The coefficient on *EPU* is significantly negative for all terciles of *AQ_BS* (coefficient = −0.150, −0.174, and −0.473, respectively; p-value = 0.000, 0.000, and 0.000, respectively). Further, we also find that the coefficient on *EPU* is more negative in tercile 3 than in tercile 1 (p-value of the difference between tercile 1 and tercile 3 is 0.000).[10] This shows that economic uncertainty impairs financial statement comparability more significantly for firms that historically have poorer accruals quality.

[8] We also estimate Eq. (5) with firm fixed effects to account for other firm-specific determinants of comparability. These results (not tabulated here, but available upon request) are similar to those reported in Table 3.

[9] To keep the discussion brief, we only discuss the coefficients on the control variables for Column 1 in Table 3.

[10] Untabulated results show that the coefficient on EPU_{it-1} is not significantly different between tercile 1 and tercile 2 (p-value = 0.896). However, the difference between terciles 2 and 3 of *AQ_BS* is significant (p-value = 0.034).

Table 3
Relation between financial statement comparability and economic policy uncertainty.

	(1)	(2)
	Comparability	Comparability
EPU	−0.257***	
	(0.000)	
News_EPU		−0.170***
		(0.000)
Size	0.030***	0.029***
	(0.000)	(0.000)
MTB	0.023***	0.023***
	(0.000)	(0.000)
Lev	−0.282***	−0.270***
	(0.000)	(0.000)
CFO	−0.500***	−0.498***
	(0.000)	(0.000)
Std_CFO	−0.116	−0.087
	(0.748)	(0.810)
Std_Sale	−0.001***	−0.001**
	(0.001)	(0.001)
Sales_Growth	0.112***	0.113***
	(0.000)	(0.000)
Std_Earn	−0.610***	−0.608***
	(0.000)	(0.000)
Std_Mret	−4.366***	−4.343***
	(0.000)	(0.000)
Loss	−0.891***	−0.895***
	(0.000)	(0.000)
ROA	0.391***	0.384***
	(0.000)	(0.000)
Op_Cycle	−0.036**	−0.035**
	(0.003)	(0.004)
Lab_Int	−0.006***	−0.005***
	(0.000)	(0.001)
Cap_Int	−0.105	−0.097
	(0.140)	(0.168)
GDP Growth	0.027***	0.029***
	(0.000)	(0.000)
Constant	0.950***	0.544**
	(0.001)	(0.041)
Observations	37,130	37,130
Industry Effect	Y	Y
Adjusted R^2	0.300	0.298

***, and ** represent statistical significance at the 1% and 5% levels, based on two-tailed tests of significance. The p-values (reported in parentheses) are based on standard errors clustered at the firm and year levels.
The Table presents the results of the equation below, relating financial statement comparability to economic policy uncertainty and its components:
$Comparability_{it} = \alpha_0 + \alpha_1 EPU_{t-1} + \alpha_2 Size_{it} + \alpha_3 MTB_{it} + \alpha_4 Lev_{it} + \alpha_5 CFO_{it} + \alpha_6 STD\_CFO_{it} + \alpha_7 STD\_Sale_{it} + \alpha_8 Sales\_Growth_{it} + \alpha_9 STD\_Earn_{it} + \alpha_{10} STD\_Mret_{it} + \alpha_{11} Loss_{it} + \alpha_{12} ROA_{it} + \alpha_{13} Op\_Cycle_{it} + \alpha_{14} Lab\_Int_{it} + \alpha_{15} Cap\_Int_{it} + \alpha_{16} GDP\_Growth_{it} + \sum_j \gamma_j Ind_j + \varepsilon_{it}$
The variables are defined in Appendix A.
Column 1 presents the results for EPU. Columns 2 present results for the news component (News_EPU) of EPU. We replace EPU_{t-1} in the above model with the $News\_EPU_{t-1}$ in Column 2.

6.3. Earnings volatility and the relation between financial statement comparability and economic policy uncertainty

Next, we study how *ex-ante* earnings volatility (*Earn_Vol*) moderates the negative association between EPU and comparability. Prior research indicates that firms with higher earnings volatility exhibit higher discrepancy between accruals and cash flows even in the absence of intentional earnings management (Dechow and Dichev 2002), which is consistent with greater uncertainty in estimating accruals. The increased difficulty in estimating accruals will result in two identical firms reporting different amounts of earnings even if they do not engage in earnings management. In addition, it is more difficult for investors to detect earnings management when firms have high earnings volatility. Consequently, managers of these firms may engage in more earnings management, which would reduce financial statement comparability (De Franco et al. 2011). It is for the above reasons that we predict that the negative relation between EPU and comparability will be stronger for firms with historically more volatile earnings.

We measure earnings volatility by the standard deviation of the 8 quarters of EPS, ending one year before the measurement of EPU. As above, we divide our sample into terciles of earnings volatility and estimate Eq. (5) for each tercile. We pre-

Table 4
Historical accruals quality and the relation between financial statement comparability and policy uncertainty.

	Dependent variable: Comparability		
	Earnings quality terciles		
	Tercile 1	Tercile 2	Tercile 3
EPU	−0.150***	−0.174***	−0.473***
	(0.000)	(0.000)	(0.000)
Size	0.011	0.017	0.085***
	(0.128)	(0.111)	(0.000)
MTB	0.017***	0.019***	0.028***
	(0.000)	(0.000)	(0.000)
Lev	−0.001	−0.210**	−0.644***
	(0.983)	(0.024)	(0.000)
CFO	−0.400	−0.500***	−0.443***
	(0.193)	(0.001)	(0.000)
Std_CFO	−1.824*	−1.118	0.545
	(0.099)	(0.104)	(0.221)
Std_Sale	−0.001*	−0.001**	−0.001**
	(0.066)	(0.009)	(0.029)
Sales_Growth	0.144***	0.146***	0.0707**
	(0.000)	(0.000)	(0.006)
Std_Earn	−0.489***	−0.547***	−0.756***
	(0.000)	(0.000)	(0.000)
Std_Mret	−3.833***	−4.521***	−4.628***
	(0.000)	(0.000)	(0.000)
Loss	−0.977***	−0.857***	−0.821***
	(0.000)	(0.000)	(0.000)
ROA	0.837**	0.354	0.491***
	(0.027)	(0.113)	(0.000)
Op_Cycle	−0.046**	−0.075***	0.015
	(0.002)	(0.000)	(0.471)
Lab_Int	−0.001	−0.001***	−0.001*
	(0.884)	(0.001)	(0.080)
Cap_Int	0.023	−0.161	−0.076
	(0.810)	(0.109)	(0.509)
GDP Growth	0.009*	0.042***	0.044***
	(0.077)	(0.000)	(0.000)
Constant	0.924***	1.233***	0.964**
	(0.000)	(0.000)	(0.022)
Observations	12,958	11,967	9,932
Industry Effect	Y	Y	Y
Adjusted R^2	0.285	0.267	0.314

***, and ** represent statistical significance at the 1% and 5% levels, based on two-tailed tests of significance. The p-values (reported in parentheses) are based on standard errors clustered at the firm and year levels.
The Table presents the results of the equation below, showing the relationship between financial statement comparability and economic policy uncertainty, conditioning on accruals estimates:

$$Comparability_{it} = \alpha_0 + \alpha_1 EPU_{t-1} + \alpha_2 Size_{it} + \alpha_3 MTB_{it} + \alpha_4 Lev_{it} + \alpha_5 CFO_{it} + \alpha_6 STD\_CFO_{it} + \alpha_7 STD\_Sale_{it} + \alpha_8 Sales\_Growth_{it} + \alpha_9 STD\_Earn_{it} + \alpha_{10} STD\_Mret_{it} + \alpha_{11} Loss_{it} + \alpha_{12} ROA_{it} + \alpha_{13} Op\_Cycle_{it} + \alpha_{14} Lab\_Int_{it} + \alpha_{15} Cap\_Int_{it} + \alpha_{16} GDP\_Growth_{it} + \sum_j \gamma_j Ind_j + \varepsilon_{it}$$

We measure accruals quality by the standard deviation of residuals estimated from the Ball and Shivakumar (2006) over the past 8 quarters. The p-value of the difference in the coefficients on EPU between terciles 1 and 3 is 0.005. The variables are defined in Appendix A.

sent the results in Table 5. The coefficient on *EPU* is significant for all terciles of earnings volatility (coefficient = −0.180, −0.253, and −0.359, respectively; p-value = 0.000, 0.000, and 0.000, respectively). Furthermore, the coefficient on *EPU* in tercile 3 is significantly more negative than that in tercile 1 (p-value = 0.000).[11] The results in Table 5 indicate that higher earnings volatility makes the negative association between EPU and comparability stronger.

6.4. Accounting policy choice heterogeneity and the relation between financial statement comparability and economic policy uncertainty

The last accounting factor we study is accounting policy choice heterogeneity. We follow DeFond and Hung (2003), and define accounting policy choice heterogeneity in terms of accounting policies relating to inventory valuation, depreciation, and investment tax credit method. We divide our sample into terciles of accounting policy choice heterogeneity (*AcctHet*) and estimate Eq. (5) for each tercile. We present the results in Table 6. The coefficient on *EPU* is significant and negative

[11] Untabulated results show that the coefficient on EPU_{it-1} is not significantly different between tercile 1 and tercile 2 (p-value = 0.370). However, the difference between terciles 2 and 3 of *Earn_Vol* is significant (p-value = 0.067).

Table 5
Historical earnings volatility and the relation between financial statement comparability and economic policy uncertainty.

	Dependent variable: comparability		
	Earnings volatility terciles		
	Tercile 1	Tercile 2	Tercile 3
EPU	−0.180***	−0.253***	−0.359***
	(0.000)	(0.000)	(0.000)
Size	0.009	0.043***	0.080***
	(0.325)	(0.000)	(0.000)
MTB	0.019***	0.016***	0.024***
	(0.000)	(0.000)	(0.000)
Lev	−0.091	−0.117	−0.431***
	(0.298)	(0.163)	(0.000)
CFO	−0.435**	−0.287**	−0.345**
	(0.003)	(0.033)	(0.048)
Std_CFO	−1.044*	−0.127	0.572
	(0.051)	(0.806)	(0.315)
Std_Sale	−0.001***	−0.001***	−0.001***
	(0.000)	(0.001)	(0.000)
Sales_Growth	0.084***	0.109***	0.139***
	(0.001)	(0.000)	(0.000)
Std_Earn	−0.931***	−0.887***	−0.553***
	(0.000)	(0.000)	(0.000)
Std_Mret	−2.449***	−3.419***	−6.125***
	(0.000)	(0.000)	(0.000)
Loss	−0.560***	−0.905***	−1.018***
	(0.000)	(0.000)	(0.000)
ROA	0.720***	0.176	0.270
	(0.000)	(0.266)	(0.183)
Op_Cycle	−0.004	−0.030*	−0.064**
	(0.789)	(0.067)	(0.001)
Lab_Int	−0.002	−0.006**	−0.007**
	(0.261)	(0.005)	(0.014)
Cap_Int	−0.325**	−0.128	−0.0819
	(0.010)	(0.179)	(0.368)
GDP Growth	0.012**	0.033***	0.032***
	(0.007)	(0.000)	(0.000)
Constant	0.124	0.287	1.626***
	(0.687)	(0.447)	(0.000)
Observations	10,834	12,375	13,921
Adjusted R^2	0.255	0.278	0.336

***, and ** represent statistical significance at the 1% and 5% levels, based on two-tailed tests of significance. The p-values (reported in parentheses) are based on standard errors clustered at the firm and year levels.
The Table presents the results of the equation below, showing the relationship between financial statement comparability and economic policy uncertainty, conditioning on earnings volatility:

$$Comparability_{it} = \alpha_0 + \alpha_1 EPU_{t-1} + \alpha_2 Size_{it} + \alpha_3 MTB_{it} + \alpha_4 Lev_{it} + \alpha_5 CFO_{it} + \alpha_6 STD\_CFO_{it} + \alpha_7 STD\_Sale_{it} + \alpha_8 Sales\_Growth_{it} + \alpha_9 STD\_Earn_{it} + \alpha_{10} STD\_Mret_{it} + \alpha_{11} Loss_{it} + \alpha_{12} ROA_{it} + \alpha_{13} Op\_Cycle_{it} + \alpha_{14} Lab\_Int_{it} + \alpha_{15} Cap\_Int_{it} + \alpha_{16} GDP\_Growth_{it} + \sum_j \gamma_j Ind_j + \varepsilon_{it}$$

The p-value of the difference in the coefficients on EPU between terciles 1 and 3 is 0.000.
The variables are defined in Appendix A.

for all terciles (coefficient = −0.258–0.289 and −0.348, respectively; p-value = 0.000, 0.000 and 0.000, respectively), although the coefficients are not significantly different. However, even though the coefficient on EPU is not significantly different between Terciles 1 and 3, its magnitude (in absolute value) is larger in Tercile 3, which is consistent with H2b.

The results in Table 6 are important, because they highlight that cross-sectional differences in comparability are not affected significantly by existing variation in accounting policies. When viewed in conjunction with the results in Tables 4 and 5, the results in Table 6 indicate that cross-sectional differences in the EPU-comparability are more likely to be affected by existing differences in accounting estimates, rather than accounting policies. This is an important contribution of our study.

7. Additional tests – other forms of macroeconomic uncertainty

We next extend our main analyses to other forms of macroeconomic uncertainty, in order to provide further evidence on the impact of uncertainty on comparability. We consider two proxies of macroeconomic uncertainty identified in prior research. These proxies include *VIX*, which is an index of 30-day option-implied volatility in the S&P 500 Index (we download the *VIX* data from Yahoo! Finance), and uncertainty about future profitability (*Profit_Uncert*), calculated as the within-quarter

Table 6
Historical accounting choice heterogeneity and the relation between financial statement comparability and economic policy uncertainty.

	Dependent Variable: Comparability		
	Accounting choice heterogeneity terciles		
	Tercile 1	Tercile 2	Tercile 3
EPU	−0.258***	−0.289***	−0.348***
	(0.000)	(0.000)	(0.000)
Size	0.038**	0.036**	0.029**
	(0.001)	(0.003)	(0.038)
MTB	0.020***	0.023***	0.023***
	(0.000)	(0.000)	(0.000)
Lev	−0.376***	−0.133	−0.396***
	(0.000)	(0.233)	(0.001)
CFO	−0.438**	−0.334**	−0.716***
	(0.003)	(0.047)	(0.000)
Std_CFO	0.167	−0.261	0.118
	(0.791)	(0.681)	(0.862)
Std_Sale	−0.001	−0.001**	−0.001**
	(0.120)	(0.011)	(0.016)
Sales_Growth	0.185***	0.130***	0.0499
	(0.000)	(0.000)	(0.129)
Std_Earn	−0.746***	−0.612***	−0.545***
	(0.000)	(0.000)	(0.000)
Std_Mret	−4.039***	−4.475***	−4.528***
	(0.000)	(0.000)	(0.000)
Loss	−0.938***	−0.900***	−0.762***
	(0.000)	(0.000)	(0.000)
ROA	0.412**	0.345*	0.493**
	(0.016)	(0.068)	(0.004)
Op_Cycle	−0.028	−0.026	−0.027
	(0.193)	(0.387)	(0.223)
Lab_Int	−0.007**	−0.004*	−0.008*
	(0.002)	(0.079)	(0.058)
Cap_Int	0.044	−0.313**	0.007
	(0.632)	(0.023)	(0.943)
GDP Growth	0.036***	0.045***	0.033***
	(0.000)	(0.000)	(0.000)
Constant	1.300***	0.972**	1.283**
	(0.000)	(0.024)	(0.002)
Observations	9,893	11,671	7,696
P-value			0.90
Adjusted R^2	0.329	0.287	0.257

***, and ** represent statistical significance at the 1% and 5% levels, based on two-tailed tests of significance. The p-values (reported in parentheses) are based on standard errors clustered at the firm and year levels.
The Table presents the results of the equation below, showing the relationship between financial statement comparability and economic policy uncertainty, conditioning on accounting policy choice heterogeneity:
$Comparability_{it} = \alpha_0 + \alpha_1 EPU_{t-1} + \alpha_2 Size_{it} + \alpha_3 MTB_{it} + \alpha_4 Lev_{it} + \alpha_5 CFO_{it} + \alpha_6 STD\_CFO_{it} + \alpha_7 STD\_Sale_{it} + \alpha_8 Sales\_Growth_{it} + \alpha_9 STD\_Earn_{it} + \alpha_{10} STD\_Mret_{it} + \alpha_{11} Loss_{it} + \alpha_{12} ROA_{it} + \alpha_{13} Op\_Cycle_{it} + \alpha_{14} Lab\_Int_{it} + \alpha_{15} Cap\_Int_{it} + \alpha_{16} GDP\_Growth_{it} + \sum_j \gamma_j Ind_j + \varepsilon_{it}$
The variables are defined in Appendix A.

cross-sectional standard deviation of firm-level profit growth (quarter-on-quarter change in net profit divided by average sales), following Gulen and Ion (2015).

We present these results in Table 7. We present results for VIX in Column 1, and profit uncertainty in Column 2. To avoid multicollinearity, we replace *EPU* in regression (5) by the aforementioned macroeconomic uncertainty measures one by one. We find that the coefficients on *VIX* in Column (1) and *Profit_Uncert* in Column (2) are both significantly negative (coefficient = −0.060 and −0.001, respectively; p-value = 0.010 and 0.000, respectively). The results in Table 7 are consistent with those in Table 3, and provide further evidence that economic uncertainty reduces financial statement comparability.

8. Robustness tests

8.1. Using an alternate measure of comparability

We test the sensitivity of our main result by using two alternate approaches to measure comparability. First, we estimate firm *i*'s accounting function as in Eq. (1) above and then estimate the expected earnings based on the parameter estimates, $\widehat{\alpha}_i$

Table 7
Relation between financial statement comparability and macroeconomic uncertainty.

	Uncertainty measure	
	VIX	Profit Uncertainty
Uncertainty	−0.060**	−0.001***
	(0.010)	(0.000)
Size	0.023***	0.028***
	(0.000)	(0.000)
MTB	0.023***	0.023***
	(0.000)	(0.000)
Lev	−0.258***	−0.272***
	(0.000)	(0.000)
CFO	−0.489***	−0.500***
	(0.000)	(0.000)
Std_CFO	−0.003	−0.085
	(0.992)	(0.813)
Std_Sale	−0.001**	−0.001**
	(0.002)	(0.001)
Sales_Growth	0.118***	0.118***
	(0.000)	(0.000)
Std_Earn	−0.610***	−0.610***
	(0.000)	(0.000)
Std_Mret	−4.230***	−4.356***
	(0.000)	(0.000)
Loss	−0.923***	−0.903***
	(0.000)	(0.000)
ROA	0.373***	0.382***
	(0.000)	(0.000)
Op_Cycle	−0.032**	−0.035**
	(0.008)	(0.004)
Lab_Int	−0.004**	−0.005**
	(0.004)	(0.001)
Cap_Int	−0.081	−0.102
	(0.250)	(0.149)
GDP Growth	0.030***	0.027***
	(0.000)	(0.000)
Constant	−0.044	−0.179
	(0.861)	(0.470)
Observations	37,130	37,130
Adjusted R^2	0.297	0.299

***, and ** represent statistical significance at the 1% and 5% levels, based on two-tailed tests of significance. The p-values (reported in parentheses) are based on standard errors clustered at the firm and year levels.
The Table presents the results of the equation below, relating financial statement comparability to macro-economic uncertainty:
$Comparability_{it} = \alpha_0 + \alpha_1 Uncertainty_{t-1} + \alpha_2 Size_{it} + \alpha_3 MTB_{it} + \alpha_4 Lev_{it} + \alpha_5 CFO_{it} + \alpha_6 STD\_CFO_{it} + \alpha_7 STD\_Sale_{it} + \alpha_8 Sales\_Growth_{it} + \alpha_9 STD\_Earn_{it} + \alpha_{10} STD\_Mret_{it} + \alpha_{11} Loss_{it} + \alpha_{12} ROA_{it} + \alpha_{13} Op\_Cycle_{it} + \alpha_{14} Lab\_Int_{it} + \alpha_{15} Cap\_Int_{it} + \alpha_{16} GDP\_Growth_{it} + \sum_j \gamma_j Ind_j + \varepsilon_{it}$
Macro-economic uncertainty is captured by VIX in Column (1), and Profit uncertainty in Column (2).
The variables are defined in Appendix A.

and $\widehat{\beta}_i$, and the average return of firm *i*'s two-digit SIC industry peers ($\bar{R}$). That is,

$$E(Earnings_{it}) = \widehat{\propto}_i + \widehat{\beta}_i \bar{R}_t \tag{6}$$

For firm *j*, one of firm *i*'s two-digit SIC industry peers, we estimate the average expected earnings as follows:

$$E(Earnings_{jt}) = \widehat{\alpha}_j + \widehat{\beta}_j \bar{R}_t \tag{7}$$

We then estimate firm *i*'s accounting comparability as, [12]

$$AvgComparability_{ijt} = -\frac{1}{8} \times \sum_{t-7}^{t} \left| E(Earnings_{it}) - E(Earnings_{jt}) \right| \tag{8}$$

The above method is conceptually similar to the De Franco et al (2011) comparability measure. However, this method views comparability from a slightly different perspective. Specifically, in the approach above, we calculate comparability based on the firm-pair's difference of their accounting function under the same economic events of the whole industry, which is more reasonable and more consistent with the view of comparability.

[12] We thank anonymous referee for suggesting this method.

Table 8
Relation between financial statement comparability and economic policy uncertainty: alternate measures of financial statement comparability.

	Comparability measure	
	AvgComparability	EComp
EPU	−0.240***	−0.0644***
	(0.000)	(0.000)
Size	0.031***	0.008***
	(0.000)	(0.000)
MTB	0.022***	0.001
	(0.000)	(0.166)
Lev	−0.240***	−0.006
	(0.000)	(0.688)
CFO	−0.404***	0.073***
	(0.000)	(0.000)
Std_CFO	−0.550	−0.316**
	(0.122)	(0.006)
Std_Sale	−0.001***	−0.001
	(0.001)	(0.294)
Sales_Growth	0.106***	0.004
	(0.000)	(0.207)
Std_Earn	−0.534***	0.049***
	(0.000)	(0.000)
Std_Mret	−3.654***	0.205***
	(0.000)	(0.000)
Loss	−0.826***	−0.024**
	(0.000)	(0.003)
ROA	0.202**	−0.128***
	(0.027)	(0.000)
Op_Cycle	−0.034**	−0.003
	(0.004)	(0.278)
Lab_Int	−0.004**	−0.001
	(0.002)	(0.415)
Cap_Int	−0.149**	0.044**
	(0.027)	(0.009)
GDP Growth	0.025***	0.001
	(0.000)	(0.969)
Constant	0.625**	0.532***
	(0.009)	(0.000)
Observations	37,130	37,130
Industry Effect	Y	Y
Adjusted R^2	0.295	0.320

***, and ** represent statistical significance at the 1% and 5% levels, based on two-tailed tests of significance. The p-values (reported in parentheses) are based on standard errors clustered at the firm and year levels.
The Table presents the results of the equation below, relating financial statement comparability (*Comparability*) to economic policy uncertainty:
$Comparability_{it} = \alpha_0 + \alpha_1 EPU_{t-1} + \alpha_2 Size_{it} + \alpha_3 MTB_{it} + \alpha_4 Lev_{it} + \alpha_5 CFO_{it} + \alpha_6 STD\_CFO_{it} + \alpha_7 STD\_Sale_{it} + \alpha_8 Sales\_Growth_{it} + \alpha_9 STD\_Earn_{it} + \alpha_{10} STD\_Mret_{it} + \alpha_{11} Loss_{it} + \alpha_{12} ROA_{it} + \alpha_{13} Op\_Cycle_{it} + \alpha_{14} Lab\_Int_{it} + \alpha_{15} Cap\_Int_{it} + \alpha_{16} GDP\_Growth_{it} + \sum_j \gamma_j Ind_j + \varepsilon_{it}$
Comparability is measured by *AvgComparability* in Column (1) and earnings covariance (*EComp*) in Column (2).
The variables are defined in Appendix A.

Second, following Francis et al. (2014), we use earnings covariance (*Earn_Comp*) as an alternate proxy for comparability. Unlike the De Franco et al. (2011) measure, *Earn_Comp* captures the covariance of the earnings of two firms. If the covariance is high, the two firms have comparable earnings. We replace *Comparability* in Eq. (5) above with *AvgComparability* and *Earn_Comp*. We report these results in Table 8, Columns 1 and 2 respectively. The Table shows that the association between one-year lag of EPU and comparability remains significantly negative (coefficient = −0.240 and −0.064; p-value = 0.000 and 0.000 respectively). The results provide additional support for H1 that EPU is negatively associated with comparability.[13]

8.2. Using alternate measures of accounting estimates

As discussed above, we use accruals quality and earnings volatility as our main measures of accounting estimates. We now present additional evidence on the effect of existing cross-sectional differences in accounting estimates on the negative association between EPU and comparability, by using two other proxies of accounting estimates – absolute discretionary

[13] We re-estimate all the regressions using this alternate measure of comparability and find results consistent with our expectations. We do not report these results here; they are available upon request.

accruals, and impairment of property, plant and equipment. We chose these proxies based on the rationale that they reflect significant managerial judgment.

We start by using absolute discretionary accruals as a measure of accounting estimates. Following prior research (Dechow, Ge, and Schrand 2010), we use discretionary accruals estimated from the modified Jones Model (Dechow, Sloan, and Sweeney 1995), adjusted for performance (Kothari, Leone, and Wasley 2005) and then take the absolute value of it (|*DACC*|). As above, we divide our sample into terciles based on the value of |*DACC*| in the year *before* the year we measure uncertainty.[14] We find that the coefficient on *EPU* is significant in all 3 Columns (coefficient = −0.195, −0.355, and −0.377 respectively; p-value = 0.006, 0.000, and 0.000 respectively). Further, the coefficient on *EPU* decreases from the first tercile of |*DACC*| (lowest absolute discretionary accruals) to the third tercile (highest absolute discretionary accruals). The difference is statistically significant (p-value of the difference between tercile 1 and tercile 3 is 0.077).[15] These results are consistent with those in Table 5.

We next report the results for impairment of property, plant and equipment (divided by total assets at the end of the previous year) as another proxy for accounting estimates. As above, we divide our sample into terciles of impairment, with observations in the 1st (3rd) tercile measuring the least (most) impairment, and thereby indicating the smallest (largest) effect of accounting estimates. We find that the coefficient on *EPU* is only significant in tercile 3 (coefficient = −0.517; p-value = 0.069).[16] The coefficient on *EPU* is significantly more negative in tercile 3 than in tercile 1 (p-value = 0.002). This result is consistent with Table 5 and provides further support of our main result that existing differences in accounting estimates significantly contribute to the decline in comparability in the presence of economic uncertainty.

8.3. Using an alternate measure of accounting policy choice

We next test the robustness of our result by considering the choice of inventory valuation method as an alternate proxy for accounting policy choice. We choose inventory valuation method as an alternate measure of accounting policy choice because inventory is one of the important balance sheet line items of industrial firms. U.S. GAAP allows managers the choice of the weighted cost method, last in first out (LIFO) and first in first out (FIFO) methods to value inventory. While prior research suggests that LIFO is the preferred choice of a significant number of firms, many firms choose to use the FIFO method, prompting prior research (for example, Morse and Richardson 1983; Hughes and Schwartz 1988; Gul 2001) to examine reasons behind the choice of FIFO. The choice of inventory valuation method is important, as it affects both the reported amount of inventory in the books and net income. Inventory valuation method is one of the components of the accounting choice heterogeneity measure of DeFond and Hung (2003) that we use in this study.

Consequently, we use differences in inventory valuation method as a stand-alone proxy for accounting policy choice, because a significant proportion of firms in the capital market carry inventory (90 percent of our sample). Further, because inventory accounts for 10 percent of total assets for our sample firms, the inventory valuation method is an economically important accounting policy choice. This makes it a good stand-alone measure of accounting policy.

To construct the alternate proxy of accounting policy choice, we first obtain the LIFO reserve from Compustat. We identify the choice between LIFO and FIFO based on the magnitude of the LIFO reserve – a zero value indicate that the firm uses LIFO, whereas positive values indicate that it uses FIFO. We then identify the proportion of firms using LIFO in a particular industry. Untabulated results show that more than half the observations in our sample have LIFO reserve values of zero. Accordingly, we classify these observations as having homogenous (low heterogeneity) inventory policy choice. We classify the remaining observations as having heterogeneous (high heterogeneity) inventory policy choice. We then estimate Eq. (5) above for these two groups of firms.[17]

We note that the coefficient on *EPU* is negative for both the high and the low heterogeneity groups (coefficient = −0.250 and −0.250 respectively; p-value = 0.000 and 0.000 respectively). However, we do not find that the coefficients are significantly different (p-value = 0.990). This is consistent with the results reported in Table 6 above. Specifically, the evidence above suggests that while economic uncertainty adversely affects comparability for both groups of firms, there is no incremental decline in comparability for firms with more heterogeneous inventory valuation policies. This supports our main results that existing differences in accounting policy choice have little incremental impact on the association between EPU and comparability.

8.4. Controlling for firm-level uncertainty

Firm-level risks are associated with financial statement comparability through its direct influence on comparability (De Franco et al. 2011), as well as indirect impact on comparability via economic policy uncertainty because EPU exaggerates firm risks. In the main analysis, we control for firm-level uncertainty by including volatility of earnings and volatility of monthly returns. To further mitigate the concern that our results are attributed to EPU incremental to firm-level uncertainty and to address the omitted variable problem, we use the firm-level uncertainty index as another control in the regression.

[14] For brevity, we do not tabulate these results. They are available upon request.
[15] The t-statistic for the difference in coefficients=2.03.
[16] We have a small sample of observations owing to the limited number of PP&E impairment observations on Compustat.
[17] For brevity, we do not tabulate these results. They are available upon request.

Table 9
Uncertainty and financial statement comparability controlling for firm level uncertainty.

	(1)
	Acct_Comp
EPU	−0.184***
	(0.000)
Implied_Vol	−0.657***
	(0.000)
Size	−0.005
	(0.653)
MTB	0.012***
	(0.000)
Lev	−0.348***
	(0.000)
CFO	−0.191
	(0.170)
Std_CFO	1.318**
	(0.017)
Std_Sale	0.001
	(0.166)
Sales_Growth	0.154***
	(0.000)
Std_Earn	−0.780***
	(0.000)
Std_Ret	−2.943***
	(0.000)
Loss	−0.626***
	(0.000)
ROA	0.205
	(0.200)
Op_Cycle	0.018
	(0.445)
Lab_Int	−0.008**
	(0.004)
Cap_Int	0.014
	(0.874)
GDP Growth	0.024***
	(0.000)
Constant	1.394***
	(0.000)
Observations	11,149
Adjusted R^2	0.396

***, and ** represent statistical significance at the 1% and 5% levels, based on two-tailed tests of significance. The p-values (reported in parentheses) are based on standard errors clustered at the firm and year levels.
The Table presents the results of the equation below controlling for firm-specific uncertainty, relating financial statement comparability to EPU:
$Comparability_{it} = \alpha_0 + \alpha_1 EPU_{t-1} + \alpha_2 Implied\_Vol_{it} + \alpha_3 Size_{it} + \alpha_4 MTB_{it} + \alpha_5 Lev_{it} + \alpha_6 CFO_{it} + \alpha_7 STD\_CFO_{it} + \alpha_8 STD\_Sale_{it} + \alpha_9 Sales\_Growth_{it} + \alpha_{10} STD\_Earn_{it} + \alpha_{11} STD\_Mret_{it} + \alpha_{12} Loss_{it} + \alpha_{13} ROA_{it} + \alpha_{14} Op\_Cycle_{it} + \alpha_{15} Lab\_Int_{it} + \alpha_{16} Cap\_Int_{it} + \alpha_{17} GDP\_Growth_{it} + \sum_j \gamma_j Ind_j + \varepsilon_{it}$
The variables are defined in Appendix A.

Specifically, in the identification of exogenous variation in firm-level uncertainty, Alfaro, Bloom, and Lin (2018) develop two annual measures to proxy for firm-level uncertainty: CRSP realized volatility and 365-day option-implied volatility. Following Alfaro et al. (2018), we include the 365-day option implied volatility (*Implied_Vol*) in the regression (5). Since this data is only available up to 2016, we restrict our sample to 2016 for this test. We present the results in Table 9.[18] We first note that the coefficient on *Implied_Vol* is significantly negative (coefficient = −0.657; p-value = 0.000), suggesting that firm-specific uncertainty also adversely affects comparability. We also note that the coefficient on *EPU* is negative (coefficient = −0.184; p-value = 0.000), suggesting that EPU has an incremental association with comparability over firm-specific uncertainty.

9. Conclusion

In this study, we examine the association between economic policy uncertainty (EPU) and financial statement comparability. In recent years, there has been a significant increase in EPU in the US and globally. This has attracted the attention

[18] Results remain qualitatively similar when CRSP realized volatility is used as a proxy for firm-level uncertainty.

from researchers, who have examined how EPU affects factors like risk and firm investment. The findings from extant research suggest that EPU is a priced risk factor (Brogaard and Detzel 2015). Further, high EPU reduces investment (Gulen and Ion 2015). Given the importance of EPU, we examine whether it relates to properties of firms' financial statements.

Using the De Franco et al. (2011) measure of comparability, we find a negative association between EPU and comparability. We then study factors that might affect the relation between EPU and comparability. Specifically, we investigate whether accounting estimates and accounting policies influence the association between EPU and comparability. We find that comparability declines more during periods of high EPU for firms that have more accounting estimates. However, the negative association between EPU and comparability is not significantly affected by accounting policy choice heterogeneity, suggesting that it is driven largely by differences in accounting estimates. Our results are robust to alternate earnings-based comparability measure and controlling for firm-specific uncertainty.

By providing empirical evidence that EPU reduces financial statement comparability, we provide an important explanation for why the decision usefulness of financial information is reduced when uncertainty is high. Poor comparability makes it difficult for investors and analysts to estimate firm value, leading potentially to lower liquidity and suboptimal capital allocation. This would adversely affect both individuals and corporations. Our study should therefore be of interest to investors, firms and policymakers.

Acknowledgment

We thank the editor, Marco Trombetta, two anonymous referees, Belen Blanco, Chen Chen, Somnath Das, Ananda Pal, Phil Shane, Stephen Taylor, and seminar participants at the 2019 AFAANZ Annual Conference, 2019 European Accounting Association Annual Congress, 2019 AAA Annual Meeting, Monash University, the University of Adelaide, and the University of Technology Sydney for their helpful feedback.

Appendix A:. Variable definitions

Dependent Variables	
Comparability	Financial statement comparability, following De Franco et al. (2011). De Franco et al. (2011) measure comparability by the extent to which the accounting responses (measured by earnings) of two firms to a given economic event (measured by returns) are similar. We present a detailed description of the measurement of comparability in Section 4. For a given firm i, our primary measure of comparability is the arithmetic mean of the four smallest differences in the accounting responses between firm i and its two-digit SIC industry peers.
Independent Variables	
EPU	Economic policy uncertainty, calculated as the natural logarithm of the arithmetic average of the Baker, Bloom and Davis (2016) monthly index over the twelve months of the firm's fiscal year t.
News_EPU	News-based policy uncertainty index, quantifying the volume of news in the ten largest U.S. newspapers containing terms pertaining to economic and policy uncertainty.
Size	Natural logarithm of total assets.
MTB	Market value of equity divided by book value of equity.
Lev	Debt divided by total assets.
CFO	Cash flow from operations divided by total assets at the beginning of the year.
STD_CFO	Standard deviation of quarterly operating cash flows over the preceding 8 quarters.
STD_Sale	Standard deviation of quarterly sales over the preceding 8 quarters.
Sales_Growth	Ratio of the difference of sales this year and sales at the last year to the sales at the last year
Loss	The proportion of quarters for which the firm reports negative quarterly income before extraordinary items in the past 8 quarters.
GDP Growth	Quarterly GDP growth.
STD_Earn	Standard deviation of quarterly earnings over the preceding 8 quarters.
STD_Mret	Standard deviation of monthly returns over the preceding 8 quarters.
ROA	Income before extraordinary items divided by lagged total assets
Op_Cycle	operating cycle, measured by natural logarithm of the sum of days receivables (365/(Sale/Rect)) and days inventory (365/(Sale/Invt))
Lab_Int	Labor intensity, measured by the number of total employees divided by total assets
Cap_Int	Capital intensity, measured by net PPE divided by total assets

(*continued on next page*)

Variable definitions (*continued*)

Dependent Variables	
AQ_BS	Rolling standard deviation of residuals estimated from the Ball and Shivakumar (2006) Model over the preceding 8 quarters. Specifically, we estimate the Ball and Shivakumar (2006) model on a quarterly basis and obtain residuals for each firm-quarter observation. Specifically, we run the following regression:$Totacc_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 CFO_{it} + \beta_3 CFO_{It} * D_{it} + \epsilon_{it}$where *Totacc* is the current accruals, defined as net income minus cash flow from operations, scaled by total assets at the beginning of the quarter, *CFO* is the current cash flow from operations, scaled by total assets and *D* is a dummy variable equal to 1 if *CFO* is negative; zero otherwise. To obtain the accrual quality for a firm at year *t*, we calculate the standard deviation of residuals over the past 8 quarters from the model above.
Earnings Volatility	Standard deviation of EPS over the preceding 8 quarters
Accounting Choice Heterogeneity (*AcctHet*)	Accounting choice heterogeneity, following DeFond and Hung (2003). Specifically, we create an index ranging from 0 to 1 that captures how a firm's accounting policies differ from those of its industry peers for each of the following choices: (1) Inventory valuation method, (2) investment tax credit method, and (3) depreciation method. For each of these methods, we compare the firm's choice with the most common choice in the industry. DH03 equals 0 if the firm's choice is the same as the most common choice in the industry, and 1 otherwise. We then sum the scores and scale by the number of choices in the industry.
Variables in additional tests	
EComp	Earnings co-movement between firm-pair i and j in the same two-digit SIC code over 8 consecutive quarters. The calculation follows Francis et al. (2014).
AvgComparability	Alternate measure of earnings comparability, obtained using the De Franco et al. (2011) approach. In the alternate specification, we regress a firm's earnings on industry return. We provide a detailed description of the variable construction in Section 8.1.
|DACC|	Absolute value of discretionary accruals, calculated using the modified Jones model (Dechow et al. 1995), adjusted for performance (Kothari et al. 2005).
Inventory Policy Heterogeneity	Firms in industries with LIFO reserve of zero are classified as low inventory policy heterogeneity firms and those in industries with positive LIFO reserve are classified as high inventory policy heterogeneity firms.
Property Plant and Equipment impairment	Property Plant and Equipment impairment, divided by the total assets at the beginning of the year.
VIX	An index of 30-day option-implied volatility of the S&P 500 Index
Profit_Uncert	Within-quarter, cross-sectional standard deviation of firm-level profit growth. (defined as net profit divided by average sales). This variable measures uncertainty about future profitability.
Implied_Vol	The 365-day option implied volatility, an annual measure to proxy for firm-level uncertainty. The data is extracted from Alfaro et al. (2018).

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